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BUTTERFLIES AND MOTHS

BY JAMES C. FERNALD

"MAMA," said a little child, "I saw a pansy with wings flying about our garden!"

How hard to improve on the child's description! Light and filmy as the petals of a flower, and as brilliant in color, companion of the flowers and the sunshine, swift and soundless in motion, like a ray of light—for these things, and not alone for its wondrous changes, the Greeks called the butterfly the Psyche, the breath, the spirit, and made it the emblem of immortality.

Its transformations have been the unceasing wonder of the ages, and modern science does not make them less amazing. Beginning as a crawling worm, always unsightly and often hideous, then spinning its own shroud or slinging itself by silken bands from some support, it passes into a state of apparent death, remaining foodless, motionless and seemingly devoid of all sensibility, suddenly to burst out into the airy creature that scarcely seems to belong to the earth, which it rarely touches, and on which it never rests. Why should not the aspiring soul of man be able to transcend the limits of the material body, and even to come forth to fairer life from the mystery of death? Such has been the universal and instinctive thought of man from the most ancient days. Over our fields and gardens and beside our dusty highways is flitting ever a living parable of resurrection and immortality.

Once upon a time some little girls learned what caterpillars are good for. They conquered their repugnance to the cold, crawling things, and came actually to delight in them for the beauty that was to be. So when some dainty lady friend was sitting in a safe willow chair on the lawn, one of the young adventurers would come tripping up, and crying, "Oh, auntie, see what a lovely caterpillar I've found!" dangle it before her eyes, to be greeted with a little shriek, a gathering of skirts, and cries of, "Oh, mercy! Ugh! Oh, how can you?" But their care would be rewarded by the most perfect specimens, often the first objects to greet their eyes on waking, and just where they could study them to their hearts' content.

In fact, collectors have now found this to be practically the only way in which perfect butterflies can be obtained. When caught in the field even a few days old some of the delicate bloom has disappeared from their tinted wings, brushed off even by contact with flowers and leaves. The rude net, despite the utmost care, damages the delicate structure still more. The light powder that stains the thumb and finger when the butterfly is carelessly seized is the frail creature's plumage, and the loss is as if we should rend handfuls of feathers from some captive bird.

"Why don't ladies wear them on their hats, they are so beautiful?" a lady said in the Metropolitan Museum, as she studied their exquisite hues.

"That has been tried, madam," replied the curator. "An empress of Germany thought she could trim her hats with them, and took the greatest pains to make the experiment succeed. But the little creatures were so exceedingly delicate that she had to give up the attempt."

MONARCH, OR MILKWEED, BUTTERFLY (Natural size)

OWL-BUTTERFLY (Natural size)

LEAF-BUTTERFLY (One half natural size)

Both butterflies and moths derive their scientific name from this dust-like plumage. They belong to the order of the Lepidoptera—a name derived from two Greek words meaning "scale" and "wing." We might call them the "scale-wings." Under the microscope these scales are found to be various in shape, but perfectly fashioned, and each bearing some part of the tints of which the brilliant, or at least elegant, plumage is made up. The scales overlap like the shingles on a roof or the feathers of a bird, and the loss of any large number seems to be felt, impairing the activity of the creature, as well as damaging its beauty.

As a rule the plumage of the butterflies is the more brilliant, though that of the moths is often very beautiful in its quiet elegance. Yet each fairy creature, like a leaf blown by the wind, has most delicate organs of sense and motion to sustain its life and make for its species a place in the world. Each has a long, flexible, hollow tongue, that can be thrust down deep into a flower to reach the hidden honey. The throat of the insect expands into a bulb that can be enlarged by one set of muscles and compressed by another set, while a valve keeps any liquid that once enters from going back. So this bulb acts just like the bulb of an aspirator or atomizer, only that instead of spraying the honey pumped up through the tongue it sends it safely on to the stomach of the owner. We have only invented our pumping bulbs of india-rubber in the nineteenth century after Christ, while every butterfly and moth has had one of living flesh to drink nectar from the flowers in the ages long before. The mechanism was as perfect in Homer's day as now.

This wonderful tongue has another peculiarity. When not in use it is coiled up tight and flat as a watch-spring, safe from injury. Butterflies and moths alike begin life as caterpillars, and pass through the chrysalis stage, to reach their perfect development in the imago, or winged insect. All alike have four wings and six legs, and the wings covered with the microscopic scales already described.

But from this point the differences begin. All butterflies have clubbed antennae—that is, the little feelers which project like horns from the head of the insect—have knobs at the end in the butterfly, while those of the moth are of various other shapes, but not clubbed or knobbed. Butterflies usually fly by day, moths usually by night. Butterflies rest with the wings erect and usually folded together. Moths rest with the wings outspread, either quite flat or sloping outward and downward like the sides of a roof.

Butterflies are of every color, from pure white to jet-black. Often most resplendent hues are lavished upon them, as in the great blue Morpho, blue as the sky, or the opal Morpho, that gleams like mother-of-pearl and then changes hue with every new angle from

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JUDGE WILLIAM K. TOWNSEND, of the United States District Court for the southern district of New York, recently rendered an important decision on the political status of Porto Rico, in the case of a firm of importers who protested against paying tariff duties on tobacco imported from Porto Rico on the ground that Porto Rico was not a foreign country, and that it was unconstitutional to impose duties on goods carried from one part of the United States territory to another.

The decision concludes as follows:

"The treaty cannot be considered unconstitutional, therefore, on the ground that we have no right to govern territory without any restraint, and, perhaps, cannot violate anywhere the negative provisions of the Constitution against infringement upon ordinary civil rights. If the treaty-making powers acquire territory, and Congress wishes to hold and govern it in accord with constitutional principles, yet without bringing it into membership in the Union, and without subjecting it to our national taxation, there seems no valid constitutional reason why this cannot be done. It may be best for us not to make its citizens fully our citizens; it may be more just toward it not to subject it to paying its share of taxation. In the case of Porto Rico, with her tobacco and rum industries, such share would probably be out of all proportion to that paid by other districts. Unless we tax her for national purposes there is no just claim on her part for the protection of the constitutional provisions for uniform taxation. If we consider it for our own and her best interest to keep her apart from the land which must bear the burden of taxation, why should we not have the power to do so? It may be the only just course to pursue. Thus, wisest statesmanship and highest consideration for the rights of people under our charge may influence us to refrain from making ceded territory part of our nation. . . .

"That we have the power to govern without the obligation of uniform taxation may be an unfamiliar proposition, but it is so because we have never before had occasion to use the power to the same extent. The Constitution-makers may not have thought of it, yet, as we have seen, it is an incident of full sovereignty commonly exercised at the time the Union was formed; one which is now prohibited to the states, and so must have passed to the federal government with the power to make war and treaties to which it is incident. For the framers of the Constitution intended that instrument not as a limitation upon the freedom of the new sovereign in acting for the states in foreign affairs; not as a check to growth, but as the organic law of a nation that can live and grow. To deny this power to govern territory at arm's length would be to thwart that intention to make the United States an unfettered sovereign in foreign affairs. For if we wage war successfully we must some time become, as many think we are now, charged with territory which it would be the greatest folly to incorporate at once into our Union, making our laws its laws, its citizens our citizens, our taxes its taxes, and which, on the other hand, international considerations and the sense of our responsibility to its inhabitants may forbid us to abandon. The construction of the Constitution which would limit our sovereign power would force us into a dilemma between violating our duty to other nations and to the people under our care on the one hand, and violating our duty to ourselves on the other. That construction would in such case imperil the honorable existence of our republic. It could not have been intended by those who framed our Constitution that we should be born a cripple among the nations.

"There has been found, then, no reason, either on principle or authority, why the United States should not accept sovereignty over territory without admitting it as an integral part of the Union or making it bear the burden of the taxation uniform throughout our nation. To deny this power is to deny to this nation an important attribute of sovereignty. The intent of the Constitution is to make the federal government a full sovereign, with powers equal to those of other nations in its dealings for the states in foreign affairs. If the United States have this power, and we have found no reason to deny it, the Treaty of Paris is constitutional. It is unnecessary to determine what limitations may control us in governing such territory; it is sufficient that we have the power to govern it without subjecting it to the burden of our national taxation. There is, then, no ground for declaring unconstitutional the treaty of cession, which accepts sovereignty on the condition that the status of the ceded territory as foreign country shall be preserved as it was until Congress shall determine it. The Treaty of Paris, then, is valid. It left the political status of the inhabitants of Porto Rico unchanged. Their status at the time of the cession was, as declared by the Supreme Court, that of inhabitants of a foreign country as regards the Constitution of the United States and within the meaning of the tariff acts. The treaty of cession did not change that status. And as Congress had not acted at the time of this importation Porto Rico was still a foreign country in the sense of the tariff law, and duties were lawfully assessed on the articles imported therefrom."

BIRD S. COLER, comptroller of New York City, in an address at the commencement exercises of the University of Illinois, on political corruption in large cities, said:

"The great civic and political problems of this country to-day were born of the social condition that exists in the cities, and there the fight for more intelligence and a higher standard of public honesty must be fought and won. No serious danger to American institutions lurks anywhere on the broad and fertile prairies of Illinois or the West, where patriotism is universal and honesty the inherent birthright of every citizen.

"But in the great cities of the East and the West, with their teeming, struggling, restless thousands, who, tasting liberty for the first time, are prone to mistake it for the intoxicating license of unreasonable freedom, there are problems that require for their just settlement the wisdom and patience of the best citizenship.

"Corruption in state and municipal government has too long been accepted in this country as a matter of course. There has been a growing tendency among men who were otherwise good citizens to shirk public duties. They wanted to keep out of politics and public life, but in keeping out they made room in both places for men who ought to be in jail.

"Political machines, so called, have been created in states and cities; the franchises and public utilities that were the property of the people have been made the circulating medium between dishonest politicians and unscrupulous corporations. In the large cities of the country the people have been in the habit of submitting to bad government until it got beyond the stage of endurance, when they would rise up in their might and put the other party in power, and then go about their private affairs, believing, perhaps, that they had done all that good citizens could do.

"Create in any state or municipality impression that a political pull will pass a bill or pave the way for the payment of an unjust claim, and the seeds of political dishonesty have been planted deep in fruitful soil, where they will sooner or later bring forth a harvest of corruption. Already the impression is wide-spread that the rules of honesty deemed necessary in private business life need not apply to the public service. Too many politicians hold that it is legitimate fruit of partisan victory to make money out of the public treasury.

"This condition of public opinion or party feeling is dangerous to private as well as public interests. Wherever the knowledge of corruption in high places is spread through the business community personal honesty and integrity will be weakened just as surely as slow poison saps the vitality of the human body.

"Let the impression go abroad that political influence will obtain business advantages, and the first impulse aroused is a determination to obtain the favors. A favor granted is an obligation created. A business advantage obtained from a politician calls for a campaign contribution, and the next favor is too often a cash transaction.

"When the cohesive power of corruption has made political influences strong enough to defy public opinion they will oppress the business interests they cannot blackmail, and representative government is then in danger.

"The old system of stealing from the public treasury has passed away, and the safer and more profitable plan of bartering political influence for cash or stock in corporations has succeeded. But while the politicians have been improving their methods the people have been learning some valuable lessons. The old method of trying to reform bad government by turning out one set of politicians and putting in another set is no longer popular. The people are beginning to understand that the government under which they live, in city or state, is going to be all the time very much what they make it. If good citizens neglect their civic duties, the politician will take the offices and everything else that is not chained down."

IN A recent number of "Harper's Weekly" is an interesting article on the "Boxers," by Prof. Isaac Taylor Headland, of the Peking University.

"The present condition of affairs in China," he says, "is the logical outcome of conditions which began more than a year ago. The province of Shantung and Honan have always been the center not only of learning and of great men (Confucius and Mencius having been born there), but also of secret societies, and consequently of such uprisings as that which is at present disturbing China, and especially Peking.

"The society called Boxers originated many years ago, and is of a twofold or perhaps a manifold character. It is partly athletic, and partly moral and religious. As an athletic association it goes under the name of the Big Knife Society (Ta Tao Hui), and as a moral or religious society under the name of Righteousness and Peace Fist. It is organized for the most part in the rural and village districts, and, it is said by the officials, is for the mutual help and protection of the country people—help in times of famine, and protection from their enemies, and in case of necessity against oppression of avaricious officials."

After describing troubles between the Catholic Chinese and their non-Christian neighbors, which developed intense hatred of foreigners and native Christians, Prof. Headland goes on to say: "About a year ago the society of Boxers transformed themselves from keepers of the peace to a band of marauders, robbing, murdering, pillaging and looting all the Christian villages in Shantung. They made no distinction between Catholics and Protestants. When they came to a village they sought out the Christians, and made it their first business to discover whether they had property or not. Where one had property and was influential they at first contented themselves with compelling the man to buy them off—that is, promising him protection in case he gave them a certain amount of silver, which in some cases amounted to one hundred, one hundred and fifty or two hundred ounces. Where they were poor they compelled them to give whatever they had, and in cases of refusal they threatened to tear their houses down, leaving them shivering in the cold. The Roman Catholics were armed against them, and their churches were turned into forts or arsenals, and in one case a regular pitched battle occurred."

Regarding the outcome he says: "I was in Peking during the whole period of the Chinese-Japanese war, and I know the sentiment of the officials, even the conservative ones, concerning the protection of the foreigners. Even the most conservative officials understand the power of foreign governments, the strength of their war-ships and the daring of their soldiers, and they do not wish to come in contact with them at the present time. It is always true that they would rid themselves of all foreigners if they were able to do so, but they know they are not able. And this is not any more true of one class than of another. They look upon the business men as cunning and avaricious, the government officials as powerful and domineering, and the missionaries as harmless and troublesome, and if they could build a wall which would keep them all out they would do so.

"When I say this is a general sentiment I mean the sentiment of the party now in power—the Conservative party. There is a large and powerful party of educated young men, who have traveled and know the conditions of other governments, and the benefits of intercourse, who, if they come into power, will bring about a reformation in China such as would astonish the nations of the world—a party which would do a thousand times more than could be done by dividing China up among the avaricious, suspicious and jealous powers of Europe. If the United States, Great Britain and Japan, the three powers which can best afford to do so, had taken Lord Beresford's advice, and had said, or will say, that China shall not be divided, but must advance, they would have done more for the progress of the world than they have done by the two wars with Spain and South Africa.

"The outcome of the present situation it is difficult to predict. When a half-dozen dogs want a bone that is not easily divided they are much more in danger of quarreling with each other than of getting the bone, and I, for one, would consider it a less calamity that the European powers should than that China should be divided."

ABOUT RURAL AFFAIRS

Measuring Centuries I have already paid the penalty for meddling with an unsettled question. A California reader writes to me quite sarcastically about my conversion to the Old World plan of measuring time. "That the year 1 should be the second year of the Christian era is indeed peculiar, etc." So it seems. It seems peculiar, too, that the years which began with 1800 should constitute the nineteenth century. And yet such is the case. To me it seems absurd to apply altogether a different principle in measuring time from that applied to measuring space or temperature. The best way to figure this out is on an ordinary thermometer, taking zero as the year of Christ's birth. And yet here is the cause of the whole trouble. Shall we call the year of that event zero, or shall we call it 1. If we call it 1, then our Christian era is made to begin more than eleven months before Christ's birth; yet we say the year 1 after Christ's birth. The year 1 after Christ's birth would also be the year 1 before Christ's birth. In short, we find ourselves beset with various difficulties. Perhaps the matter is largely one of agreement; but the most sensible way, and by far the most convenient all around, seems to me to measure time as we measure the temperature. Accept a zero-point (or zero year, the year of Christ's birth), and count along naturally in both directions.

* * *

Hen-mites and Rabbits One of my neighbors keeps a pair of rabbits as a remedy for the hen-spider. He says his poultry-house used to be overrun with the tiny blood-suckers (as, in fact, most of the poultry-houses all over the country are). A Western agricultural paper once told him that rabbit manure was a sure remedy for the pest, and so he keeps his rabbits in a pen close to the roosts. Now he has not seen a hen spider or mite in a long time. I give this for what it is worth, but I confess I shall rely on spraying (or soaking, if necessary) with kerosene rather than on the rabbits. But if the assertion is founded on fact, then the Belgians have scored another point in their favor.

* * *

Tanning Belgian-hair Skins One of our readers, A. J. G., in Porter, Washington, writes me that he has tanned and dressed thousands of skins, and gives the following receipt for tanning light hides of all kinds: "Take one gallon of soft water and three pints of wheat-bran. Mix, and let stand until it ferments. Then add one pound of salt, stirring until dissolved. Then add slowly one fifth of a pound of sulphuric acid, stirring all the time. Place the hides in this liquid, and handle them until saturated with the mixture. This tan imparts no color to the leather. When properly prepared the tanning-liquid has a pungent, sour taste, sharper than the sharpest vinegar; but it is not so strong as to injure the tongue or the hands in handling the skins. Light hides should remain in this from four to twelve hours. Then rinse in soft water, and wash in a suds made of one ounce of borax, two ounces of salaratus and one pint of old soft soap. This may be rubbed into the fur or wool; then wash the suds out and hang the skin in the shade. When half dry apply the oil. This completes the tanning. If you desire, I will tell you how to finish the hides." By all means let us have the whole of it.

* * *

Orchard Pollinations Some of our readers undoubtedly remember Mr. Wier, first of Illinois, then of California, the man who first pointed out in a practical way the singular behavior of the Wild Goose plum, which often bears well when standing alone at the South, but is invariably self-sterile at the North. I believe it was this discovery which led to the recent investigations about the pollination of orchard fruits. It is now more than a dozen years ago that I became convinced of the advisability or necessity of mixed planting—that is, planting different varieties together rather than one variety in big blocks—and as early as that I have often and earnestly recommended such a course. The Cornell University experiment station has just issued a bulletin on this subject (No. 181). In it Prof. Roberts says: "The study of pollination in orchards is made necessary by the rise of commercial fruit-growing. When fruit is grown only for home use, or in small areas for a local market, there is not likely to be serious loss from imperfect pollination; but in large commercial orchards any general unfruitfulness from this source is quickly noticed. The commercial orchard seems destined to be the most important single factor in American horticulture, and with its growth comes a corresponding increase in the liability of loss from imperfect pollination."

* * *

The past season of blooming has seemed very favorable to fruit setting. There was no rain, and most of the time a comfortable temperature. Some of my apples and most pears have set fruit abundantly, even where standing in large blocks of one variety only. At various times I examined the trees during blooming, without being able to see a bee or other insect working on the blossoms. No doubt, however, about the fruit setting, especially on early-summer apples, Gravensteins, also Baldwins. I have a block of Twenty Ounce apples which have borne more or less freely during the past two years. They bloomed very full this year, but I now find only few apples on them. Was the pollen lacking, or the insects? Not far from this block is another large one of Greenings. These also have set only sparingly; and the question in my mind now is whether these Greenings would not do better than they have done for many years if another kind were planted with them, or top-grafted with some of the trees.

* * *

Bees as Pollen-carriers The following is a quotation from the bulletin: "The pollen of one variety is carried to the pistils of another in two ways—by the wind and by insects. There are many kinds of insects which aid in the cross-pollination of orchard fruits, principally bees, wasps and flies. Of these the wild bees of several species are probably the most important. In a wild thicket of plums or other fruits they are usually numerous enough to insure a good setting of fruit. But few, if any, wild bees can live in a large orchard, especially if it is well tilled. As the extent and thoroughness of cultivation increase the number of these natural insect aids to cross-pollination decreases; hence, it may become necessary to keep domestic honey-bees for the purpose."

* * *

Summary on Pollination In its summary the bulletin states that scarcely one fruit-blossom in ten sets fruit, even in the most favorable seasons and with the most productive varieties; that much of the unsatisfactory fruiting of orchards all over the country is due to self-sterility, a tree being self-sterile if it cannot set fruit unless planted near other varieties; that self-sterility is not a constant character with any variety, and the same variety may be self-sterile in one place and nearly self-fertile in another; that the loss of fruit from self-sterility usually may be prevented by planting other varieties among the self-sterile trees; that poorly nourished trees are more likely to be sterile with their own pollen than well-fed trees are. All these observations lead to the final suggestion: Don't plant trees in solid blocks of any one variety, but rather mix them intelligently. Where orchards are already established on the faulty plan indicated it may be profitable to put a few grafts of other varieties in each tree, or at least in some of the trees, all through each block. Also give to the trees food enough for healthy growth, yet not an excess of nitrogenous matter which would overstimulate wood growth at the expense of fruit production. T. GREINER.

SALIENT FARM NOTES

Moving West A neighboring farmer tells me that he intends to sell out and move West the coming fall. He is doing fairly well where he is, but thinks he can do better farther West. I asked him what advantages he would secure by going to a country entirely new to him and among strangers. He said that he wants more land. He is penned in, he declares, by men who will not part with a foot of land at a reasonable price, and as he is not satisfied with the amount he has he thinks it will pay him to go where land is cheaper and men more ready to part with it. The question that arises in my mind is, Will it pay him in the long run? He has a very comfortable little farm, a fairly good house, outbuildings, wells of good water, orchard, etc. He knows every foot of his land and how it must be worked for the best results. He has a good market for everything he grows, coal is abundant and cheap, and for at least seven months of the year the roads are fairly good. He is surrounded by relatives and friends who would quickly come to his aid should he be in trouble or distress. In moving he goes to a country new to him, a different climate, away from cheap fuel, farther from market, on a farm that he does not know, and among strangers. He will lose at least two years in learning his soil and climate, and as he is not young that will count. He can take all of his principal tools, vehicles, household goods, animals and fowls with him, but not the thousand and one odd scraps and bits that one finds so useful, and these he will have to buy. The expense of moving will be large and the labor will be great. He may like to be among new people for a time, but one soon becomes hungry for familiar faces and voices. He will gain the advantage he seeks—more land—but with it will come more work.

* * *

Contentment joined with good common sense is a valuable heritage. Unrest breaks up homes, scatters families and friends, creates landlordism and ruins a country. The moving away of a friendly, neighborly, energetic, enterprising man or family rouses the demon of unrest in a hundred breasts. People begin to ask themselves why they should remain where they are. Cherished things lose their attractiveness, and a longing for new fields, for some indefinite thing "away off," takes possession of one, and naturally he talks much about moving. The shrewd land magnate sees his opportunity and comes with cash offers, the old home is parted with, and one of the magnate's tenants—one of his serfs—moves in, and in a short time most of the shade-trees and "flowering brush and trash" is cleared away and we have a typical tenant farm. I well remember the return of a young lady who had been visiting the old neighborhood after an absence of twelve years. "I don't want to go back there again, and I never will!" she exclaimed, decisively. "You wouldn't know our old home. Oh, my! don't ask me about it; I don't want to tell!" And all she would say was that it was a ruin. Contrast this with the remarks of a married lady who had just returned from a visit to her brother, who is living in the old home. She had been absent nine years—she said "almost a century!" "Yes, the old place is nearly like it was when I left it, only still more improved. It is the prettiest, dearest old place in the world. The house is the same good, old, comfortable thing it always was; furnished a little more modern, maybe, but all the rooms look as familiar as ever. Another barn has been built a short distance from the old one, and there are more fences and yards, but still it looks familiar and well cared for. There's a new school-house on the hill, lots nicer and more complete than the old one, and the same big old trees stand guard over the playground. Back of the grove is the same little 'shady nook by the running brook,' where we used to have our playhouse and make mud pies. Oh, it is the best and loveliest old place in this world, and Tom's little girls are playing where we used to, and about the same as we did!"

* * *

Land Fertility D. A. W., Kansas, is somewhat inclined to doubt that one hundred bushels of corn can be grown on one acre. He says that where he lives (Brown county) one man with four horses, a lister and a cultivator can put in and tend eighty acres as well as twenty. He says they grow corn on the same land year after year and use no fertilizer, and their yield is forty to sixty bushels of shelled corn to the acre. He has land that was planted to corn in 1876 and has produced a crop every year since.

I do not question his statements. They merely show what a magnificently fertile soil we have in some portions of this country, and how it is abused. About thirty years ago I saw an Illinois farmer hauling manure from his stables and dumping it into a creek to get rid of it. Twelve years later he sold out to pay off pressing debts, and went West to start again. Another of my old neighbors built a nice barn, and after pulling down his old stables, some distance away, he set fire to the vast accumulation of manure, then quite dry, and it burned over two weeks. He died about fifteen years afterward, and the farm was sold under foreclosure, and the heirs got very little. At that time neighboring farmers poked fun at my father for "wasting time and labor" in making and drawing out manure on his farm. They declared that the land was rich enough, and that manure only made weeds grow faster. When the farm was sold by his heirs it was known as the most fertile farm in that locality, and it brought a high price. At that time nearly every farm in the neighborhood had changed hands, the former owners moving away in search of better soil—newer land. The Kansas man may be able single-handed to farm eighty acres and obtain a fair yield for many years, but the end is coming. He will wake up some day and find himself the owner of a farm that is no longer productive; a farm that has been ruined by his own wasteful methods. Then after a short struggle to hold his own and make a living he will leave to his successors the slow, laborious and expensive task of partially restoring to the soil the life and fertility he robbed it of.

If one is so fortunate as to own a farm teeming with fertility, such as this Kansas man boasts of, it plainly is his duty to so manage it that this great fertility shall not be impaired. It is his duty, as an intelligent man and farmer of this day and age, to keep the land as fertile as he found it. And if he is a thorough farmer and one worthy of his profession he knows how this can be done. Here in the central states we have learned that our land must be fed and rested.

* * *

Those who have adopted the intensive system of limited area, thorough culture and scientific fertilization are they who grow the great crops that so tax the credulity of the common "average" farmer. Some of them obtained their agricultural education on little rocky farms in the East, others right here at home, and they know what must be done to maintain the fertility of the soil and grow maximum crops, and they do it. Many a farmer knows better than he does, and for that reason never rises above the average. When a man knows how many stalks to the hill and hills to the acre are required to make a yield of ninety bushels, and plants so that he knows positively that he will have that number, he is not far from being an expert; and if his soil contains sufficient fertility to grow and mature such a crop, he gets it. An expert farmer knows very nearly the capacity of his soil, and seeds accordingly. He does not try to produce eighty bushels on forty-bushel land. But when he has eighty-bushel land he makes it produce the eighty bushels. FRED GRUNDY.

OUR FARM

FARM THEORY AND PRACTICE

THE WHITE GRUB.—In the last two years there has been unusual complaint of damage to crops from the white grub. I do not believe that there are sure methods of destroying the grub in the ground, and about the best we can do is to understand their life-history, and thus to evade their attacks as far as possible. The use of ashes, salt, sulphur, etc., to make the roots of plants distasteful to them is not a success, as a rule. Some knowledge of their life-habits enables us to save ourselves oftentimes from serious loss. They are the larvae of the May-beetle, which comes out of the ground in May or June. The beetle lays its eggs within a few weeks after appearing, and usually chooses a clover or grass sod for this purpose. The eggs are placed an inch or two below the surface of the ground, and when the young grubs hatch out, within two weeks or so from the time the eggs are deposited, they feed upon the roots of the plants until cold weather. This first year they are so small, and the grass-roots are so numerous, that no particular damage is noticed by the farmer. The winter is spent deep in the ground, and in the spring of the second year the grubs come up near the surface again, ready for feeding. They are still quite small. After feeding again until cold weather they go down below danger of frost, and the next spring begin the third year of their lives as large grubs. Late in the summer they pass through the changes necessary to become beetles, and usually remain as beetles in the ground until May of the next year; three full years for development. Then comes the egg-laying period, followed by death.

* * *

PREVENTING SERIOUS LOSS.—We have seen that there may be in the same field the baby grub, the one-year-old and the two-year-old. None of these will be present unless the beetles have found the conditions in that field in June favorable for the deposition of eggs. In years that the May-beetles have been as numerous as they have been in many places the last four years, land intended for strawberries, potatoes, truck and other costly crops should not be left in sod throughout the summer. I find it practicable to grow an occasional summer manurial crop in place of a clover or grass sod, to give fertility to the land wanted for these expensive crops, and the absence of a sod in June, or the turning under of the fertilizing crop early in the fall, saves from an attack of the grub. I think it is the unfavorable conditions for the deposition of the eggs rather than the plowing down of the crop that gives immunity from attack. In growing late potatoes we learn not to fear the presence of the large grubs when planting sod-land. They will cease to eat soon after midsummer, changing then into the pupae. It is the middle-sized and the tiny ones that will remain voracious feeders throughout the fall when late potatoes are maturing. To keep costly crops from injury by the grub we must either prevent the ground from becoming infested in the way I have recommended from experience, or else keep these crops out of the infested land. The summer fallow, quick-growing fertilizing crops, winter cover crops and fertilizers instead of clover and grass for fertility drive the most of the beetles to fields where less restless activity interferes with their work. A permanent sod best suits a pest that takes three years to complete its life cycle.

* * *

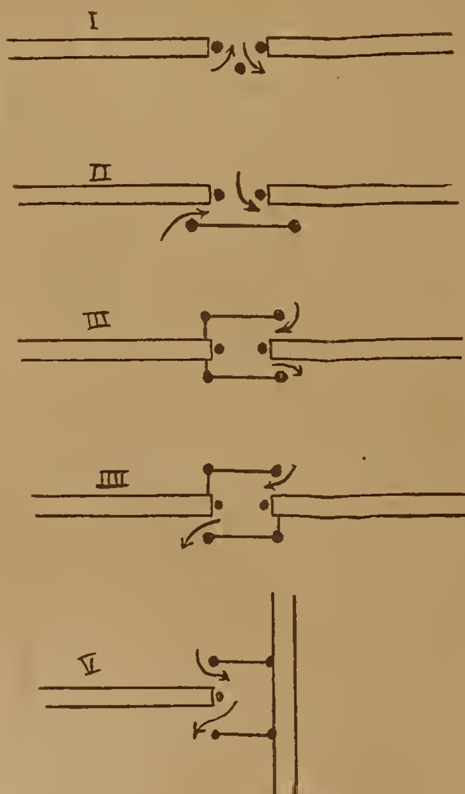
CATCHING MOLES.—Nature has a wonderful way of balancing accounts, and when any kind of animals increase unduly there comes a check through an increase of the enemies of that animal, whether it be other animals or only germs hostile to its welfare. The increase in number of white grubs has been followed by an unusual increase of the moles that feed so largely upon them. The mole is called the farmers' friend, because it consumes insects, but nevertheless I do not like its ways. While it is burrowing for the grubs in lawn and garden it is often doing more harm than the grubs could have done. We are admonished to befriend the mole, but just so long as it plays havoc with valuable plants by lifting them out of the moisture and breaking their root connection with the soil it is accounted an enemy on this farm, and is treated accordingly. I observe that they make their homes in ground that is not disturbed, such as the lawn, and then have runs by which they reach the cultivated ground, where the burrowing is done seemingly at random. There is at least one effective trap on the market, and when this trap is properly set in a run leading to a feeding-ground the catch is sure. There is the most activity after a rain, and at such a time I have caught three moles in a single day with one trap. They pass through their runs, picking up insects, in the morning, again about eleven o'clock, and again about four o'clock. The trick is to locate the main lines of travel leading out from their homes, and on these lines the catch is pretty sure. In times of drought the burrows run deeper under the surface, and often cannot be located from surface appearances.

* * *

BETTER AND CHEAPER POISONS.—The use of arsenical poisons in killing insects has reached enormous proportions. Paris green, already upon the market for other purposes, naturally became a favorite form of poison for the farmers' and fruit-growers' use. The demand for it has led to adulteration, and we now know that Paris green is an unduly costly form of poison at the best. Unnecessary expense is involved in its manufacture, and a fixed amount of arsenical "killing-power" can be gotten much more cheaply in some other forms. Some of these are dangerous to plant life, because they dissolve in water instead of merely remaining in suspension, as does pure Paris green. But our experiment stations have been working on the problem of cheaper poisons for the use of the farmer, and now recommend some forms that are as safe and effective as the green, and far cheaper. They gladly furnish this information to all who ask for it, giving specific directions that are safe to follow, and very soon the public will cease spending its money for low-grade Paris green at a high price. DAVID.

STILES FOR FARM FENCES

In many places stiles are more economical in construction and in efficiency than gates, and their use upon the farm, it seems to the writer, should be encouraged, especially in sections where stone and stumps are used for fencing material. The old-fashioned steps may be useful and perhaps best for certain conditions, but the stiles



described will be found better. All of them and several others less useful are in use in Bermuda, where almost every fence is built of stone. The advantage of these Bermudian stiles is that they avoid steps or stairs, all being upon the level. The illustrations, with the brief notes following, will be sufficient to convey the ideas.

Number one, which is the simplest, consists of three posts, two set at the ends of the wall and the third directly in front of the entrance. In number two an extra post is used separate from the fence; two or three slats being nailed to these outside posts. Numbers three and four are self-explanatory. Number five is placed where two walls join at an angle. The arrows indicate the direction of principal travel. When placed in stone fences the ends should be protected from falling by setting posts as shown. These may all be so constructed as to be stock-proof. M. G. KAINS.

THE EXPENSE OF FENCES

Farmers as a rule are too extravagant in building fences. It is not in the fences themselves that the loss comes in. Fences are a necessity, and a farm without good ones is a hard thing to manage; but, as in all farm-work, careful forethought and planning should be done before the fence is put up. If it is possible to get on without it, do so. Every fence on the farm wastes more or less land. The first cost of a good fence is no small item, but insignificant when compared with the expense of maintaining plus the value of the land which it occupies that will become almost useless. Every man who has had experience knows that with a hedge-fence the soil for nearly a rod on each side will grow little of any crop. How much good land will be taken in by half a mile of that fence? What would be the value of the crop grown one year on that land? Multiply that by ten years, and add the wages paid out to a man during that time to keep the fence in shape, and you will be set to thinking by the result.

J. L. IRWIN.

VALUE OF BASIC SLAG AS A SOURCE OF PHOSPHORIC ACID

No fact is more apparent to the progressive American farmer than that phosphoric acid is being gradually exhausted from our farming lands. In the effort to restore it commercial fertilizers are now coming into such general use that the question to be considered is the one involving the cheapest source of supply. The substance in most general use which is used to replace it is superphosphate; that is, acidulated bone or phosphate rock rendered soluble by treatment with sulphuric acid, and that derived by a similar process from bone and boneblack. The discovery and use of basic slag in Europe as a cheap source of phosphoric acid has placed within the farmers' reach a product the use of which is destined to increase rapidly not only in Europe, but also in this country.

Basic slag is a waste product from the manufacture of steel from phosphatic iron-ores by what is known as the "basic process." It is sold under several names, as "Thomas' phosphate meal," "phosphate slag," "basic slag" and "odorless phosphate." It is produced to a limited extent at Pottstown, Pennsylvania, and in large quantities in England, France and Germany. In those countries it is not only the cheapest source of phosphoric acid, but is regarded as a very valuable product. It contains from fifteen to twenty per cent of phosphoric acid, in the form of phosphate of lime, in connection with a comparatively large proportion of lime and oxide of iron. When very finely ground the phosphoric acid is quite as active as that contained in fine bonemeal, and is especially suitable for clay and sandy soils, and for meadows and the renovation of pastures.

"Basic slag when properly prepared is now sold on the market for from $15 to $17 a ton, and contains from twenty to twenty-five per cent of phosphoric acid. The lime that basic slag contains appears to be in excellent condition for producing a proper flocculation of soils. Its application to stiff, clayey soils would doubtless prove highly beneficial aside from its content of phosphoric acid. Thus, in the application of this fertilizer we find a double benefit; first, the improvement which it makes in the physical condition of the soil, and second, by the amount of plant-food available in it."

In general, the position regarding superphosphate manuring is similar in some respects to nitrate of soda, inasmuch as it acts rapidly, while on the other hand the phosphoric acid of the basic slag, or "Thomas' phosphate," is particularly characterized by its regular and sustained activity. This phosphate is preferable for all soils that are generally poor in phosphoric acid, whether they are sandy, marshy or mellow loams. Recently, during a dry summer, when liberal dressings of superphosphate had been applied at the time of planting, the crops at first developed quite vigorously, but when the dry weather commenced they came to a standstill, and finally yielded much smaller harvests than unmanured fields. Such a result never occurs in the use of basic slag, and for this reason it is worthy of more extended use where droughts are common in early summer or midsummer.

Of the various testimonials respecting the value of "basic slag" for growing superior crops, that of Mr. John Wilson, of Hornby, Yorks county, England, is one that can be relied upon. He says: "For the last five years I have used the slag or phosphate powder, and in every case it has given me good results. I have sown it on barley, wheat, oats, beans, tares, clover, potatoes and turnips. I find it gives the best results when sown with the seed. I can safely say that it has doubled my produce wherever applied. I have tried it by the side of dissolved bones and other manures costing four times as much a ton, and to my surprise it has proved superior. As a manure for orchard and garden its equal is not to be found."

Mr. E. L. I., of Northumberland county, England, says in the "Agricultural Gazette:" "I have been using basic slag since 1894, and I have always found it to give the best results both with clover-meadow land and oats, and this year I have tried basic slag on my wheat. In fact, it has given such good results that I have gradually gone over every acre of my farm, and propose to repeat the treatment every three years. In December, 1894, I dressed a field, which was subsequently cropped with clover and oats, with five hundred pounds of basic slag, excepting one corner of the field."

* * *

Mr. W. Goodwin says in the Oswestry "Advertiser," England, that "the 'Thomas' phosphate powder' is not only a rich source of phosphate, but also of lime, which possesses the property of acting as a direct manurial agent, as well as by its chemical action upon the soil, liberating, as it does, a vast amount of locked-up fertility not otherwise available, and by its action on the humus of the soil. The effect of the slag phosphate on grazing pastures, both on strong clay lands and moor-like meadows of North Staffordshire, was, after three or four dressings, a luxurious succulent pasture of fine herbage. Had the land been left in its natural condition, coarse, scant and sour grasses would have been produced."

The value of basic slag as one of the cheapest and most enduring sources for restoring or adding phosphoric acid to the soil is fully appreciated in the best agricultural sections of Europe. It has become an indispensable adjunct to successful agriculture. Repeated trials and its increased use each succeeding year attest its value for promoting the growth of grass, clover and other farm crops. A marked peculiarity of basic slag was made known during a discussion which took place at a recent session of the Lincolnshire Chamber of Agriculture. A six-acre field of almost worthless pasture-land was given a dressing of two tons on two occasions. As a result the basic slag promoted a clover and leguminous growth, which in turn so increased the growth of the finer grasses, such as foxtail, timothy, fescues, peas, etc., as to enable the keeping of a double amount of stock, and in better condition than ever before on a given acreage. It is an undisputed fact, where pasture-land has been treated with basic slag, that live stock of all kinds seem to have a natural craving for the pasturage, and invariably fatten more rapidly than where phosphatic manure has not been applied. W. M. K.

NOTES FROM GARDEN AND FIELD

No Potent Pollen.—One of my exchanges says that late blooming is not always an indication of sure bearing. "Some varieties of plum bloom very late and seldom bear any fruit. We have two trees given to this vice, and the ax will feel for their roots in the fall." Without having further particulars about the case, I would suggest that this is one of the instances of fruit failure caused by want of potent pollen. The remedy has been pointed out already in last issue. Find other varieties that are late bloomers, and plant them with these offending trees, or top-graft some of the branches with such other sorts. This will give the needed chances for cross-pollination, and probably make the trees set fruit more freely.

* * *

Slugs or Snails in the Garden.—Sometimes slugs or snails attack our peas, corn, lettuce, celery and other crops in great numbers, and do a good deal of damage before we are hardly aware of their presence. J. R. N., of Costa county, Cal., asks me what will kill these enemies, or prevent them from destroying his vegetables. Few garden pests are as easily handled as these snails. They are extremely sensitive to contact with lime, ashes or salt, and any application of these materials, whether liquid or dry, is quite sure to make an end of all snails that are touched by it. Snails have the habit of feeding at night. They leave their hiding-places at dusk, and swarm all over the plants, riddling the foliage with greedy jaws. Then is about the best time to attack them. Dust dry lime, wood ashes or tobacco-dust over the plants, either by hand or with a good powder-gun, and the plants will be cleared of the pests in a very short time. Lime, even in minutest quantity, brought in contact with the soft, slimy bodies, will quickly dissolve the animals until not even a grease-spot is left. Or you may take any kind of a sprayer, fill it with strong brine or with tobacco-tea, and spray it on the plants at dusk, and it will have the desired effect. For tender things which cannot stand applications of salt, dusting with lime will be found the better way.

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Crimson Clover and Cow-peas.—S. W. U., of Oberlin, Ohio, writes me that he has three acres of clay land now in oats. He intends this for a garden next year; but the land is not rich enough; neither can he get manure. The piece will be thoroughly underdrained. The problem for him to solve is what crop to sow that can be plowed under and will furnish humus and plant-food. He contemplates planting cow-peas after the oats are off. I fear that it will be rather late for cow-peas to make a heavy growth from seed, when planted after the oat harvest. If it is to be tried, however, I would suggest the use of an early variety and of plenty of seed. After frost plow the vines under, leave until spring, and don't be afraid to replow then, as the vines will have become well rotted by that time. Possibly crimson clover may be even better for the purpose. At least it is worth a trial. Here I have succeeded in making some growth of this clover when seed was sown in July. But it does not seem hardy enough to winter well on my soil. I sowed some in a plum and chestnut orchard in Ontario county last summer, and it made considerable growth. Although it killed out badly, almost entirely, during the winter, yet the soil appears to be greatly improved; in fact, to such an extent as to encourage a repetition of the trial. If the land is really of a stiff, clayey character you can well afford to improve its texture by additions of loosening materials if the patch is intended for a permanent garden. You may be able to secure a lot of muck from a near-by low place, of course getting this out in a dry time and preferably exposing it to the weather for awhile before application, or first using it as absorbent in the stables. If sand can be had without going too far for it, the addition of twenty to fifty or more loads to the patch will greatly improve it. I would also put on all the coal ashes and wood ashes I could get, and wood's-earth or chip manure, etc. Then practise thorough tillage, never planting a seed or setting a plant until every lump has been reduced to a powder. And after planting keep cultivators and wheel-hoes moving.

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Late Potatoes.—I am making a trial in very late planting this year. One variety of potatoes I am yet to plant is a new early one, which I grow for seed purposes only (on contract). I believe that early potatoes might be planted as late as the middle of July and under favorable weather conditions give a good crop. The one trouble with us here is the so-called early blight. I usually have best success in avoiding serious loss from this source by planting early sorts very early. They have then a chance to make good tubers before the extremely hot and dry weather of August. Of course, these early patches are usually the first to catch the blight, as this comes when the plants are in full development and rather on the decline than otherwise. And then when one patch is once affected the disease is liable to spread to adjoining fields. For this reason it may not be good policy to plant early and late potatoes in adjoining fields or patches, although this is just what I have done and am doing this year.

Another important matter, and a task often considered somewhat difficult, is to keep the seed-potatoes in best shape for late planting until planting-time arrives. If kept in bins in the cellar, in barrels or deep boxes, they are sure to grow up in long, spindling sprouts, and thus weaken the potato for planting. I find that I can get around this very easily and cheaply. I have put a lot of Commercials, which I think is now one of my best-yielding late sorts, into bushel crates, filling them two thirds full and then letting them stand on the ground outdoors where they have more or less sunshine. It would be impossible to tell the original color of these potatoes to-day. They are almost black. But every one of them, clear down to the bottom of the crate, has those fine, stubby sprouts that are so greatly desired by all experienced growers, and all these tubers appear plump and fresh. When planted they will make a quick and vigorous growth. The other variety was only just received in barrels by freight, and the potatoes had been badly sprouted. Before planting them I am subjecting them to the same treatment as the Commercials; namely, exposing them to more or less direct sunlight in open crates. I shall try to develop those same short sprouts before putting them into the soil, even if this compels me to plant very late. Possibly by planting very late I can avoid the danger from the early blight altogether. As a whole, blight or no blight, I find potatoes a profitable crop. I grow them for a retail market, and for a large portion of the early crop expect to get the usual price of one dollar a bushel.

T. Greiner.

INQUIRIES ANSWERED

BY T. GREINER

Celery Queries.—A. R., Atwood, Kan., writes: "Would reservoir banks, with water six inches from the surface, be suitable for celery? What size should plants be when transplanted, and should they be shaded? How deep should trenches be, and how should filling trenches be regulated for blanching? I have my first crop started and am anxious to learn about celery culture."

Reply:—I think the water-level should be lower than six inches from the surface. You can try a reasonable number of plants. If they succeed, please report about it. I like celery-plants well developed, say six inches high, and a good strong tap-root of the same length. These plants have to be set out in the heat and drought of early summer, and they could not be expected to endure the hardships of the transfer at that season, unless there is a good deal of reserve energy, as indicated by a strong root. Trenches are not needed; a little shading, however, is always of advantage. To blanch the stalks, hill up the plants closely, to make them grow compact and upright; afterward blanch them with boards, by setting the boards up on their long edge, one on each side slantingly against the row, or draw earth up against the rows, covering the celery-stalks clear up to within a few inches of the tips of the leaves.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

Anjou Pears Rotting.—J. T. W., York, Pa., writes, requesting some reader of the Farm and Fireside to tell him how to keep Anjou pears from rotting at the core. I gave them the same treatment as the Clapp's Favorite, but failed. I am not able to give an answer that is satisfactory to myself, and if any of our readers can give a remedy or preventive we shall be glad to have them do so. The season of ripening of the two varieties is very different, and they might require a different treatment. The Clapp's Favorite is a summer variety, but like most others is better if picked as soon as the seeds have changed from a white to a brown color, when, by raising the pear in the hand, it separates easily from the end of the stem. They should be handled carefully and placed in a room from which the light is excluded, so that they can be ripened by a slow process. The Anjou is a large autumn variety, and is frequently kept into early winter. It would be too immature to pick and put away on the same dates as the Clapp, and if in final ripening up it did not rot at the core the quality would naturally be poor. Letting them get too mature before gathering, and then attempting to keep them to the natural season by cool storage in the fruit-house, often results in decay, beginning at the core (not only with pears, but also apples), while the outside remains in about the same condition as when they were gathered from the tree. Fruit produced on diseased trees will not keep as well, and some varieties are affected by the soil on which they are grown.

Peach-leaf Curl—Monilia.—J. L. B., Fabius, Ala. I think that the trouble with your peach-trees is that they are affected with what is known as the "peach-leaf curl," which is a fungous disease that winters over in the tissues of the buds and twigs. It has been found that by spraying the trees with Bordeaux mixture early in the spring, before growth started, was a partial preventive of this trouble. This disease is more injurious in some seasons than in others, but where it has been as abundant as with you it is very desirable to use Bordeaux mixture on the trees until they regain their normal health. ——The disease which causes rotting of the fruit is quite different from the curl. This disease is known as "Monilia." It winters over in the dried-up fruits which generally hang on the trees over winter. You will find that thoroughly spraying the trees with Bordeaux mixture before they have leafed out will be a great help in preventing this, as well as the leaf-curl. Take special pains to cover the mummified fruit with the spray, or pick it off and burn it. For this purpose you should use Bordeaux mixture made of five pounds of sulphate of copper (bluestone), five pounds of quicklime and twenty-five gallons of water. After the trees have leafed out it would be a good plan to spray them with the same mixture, but use two or three times as much water, and it would be well for you to experiment a little with it before using very much, to see whether it injures your trees, and if it does, then dilute further. You may find it necessary to spray three or four times at intervals of about two weeks after the leaves have come out.

Borers.—J. M. G., Northville, Mich., has noticed that many people are complaining of borers in their apple-trees, and desires to let the public know of his success in combating them. He had set about one hundred trees, and on the second year after planting borers commenced their depredations. He first tried digging them out, but found it to be too big a job, and he then took eightpenny cut nails and drove them through the center of each tree just above the ground, and watched for results. He observed that the next year the trees from which he had dug out the borers commenced to heal, and he then got nails one size smaller and drove one through every tree he had; and he had one tree that had been set years before the others, and drove into it shingle-nails as close as he could, and borers have never since troubled his trees. The writer's experience, which has been quite extensive, has been very different from his. The only sure remedy for the borer that I have found in an experience of nearly seventy years has been to either dig them out or kill them in their burrows, which I most generally do by inserting the end of a wire into the burrow and probing for them, and by preventing the deposit and hatching of the eggs. The apple-tree borer that is most destructive to trees is the larva of a beetle, called "Saperda bivittata" by Say. The eggs of the beetle are deposited upon the bark near the root of the tree in the months of June and July. The larvae hatched therefrom are fleshy, whitish grubs, nearly cylindrical, and tapering a little from the first ring to the end of the body. The head is small, horny and brown, and the first ring much larger than the others. As soon as hatched the grub proceeds to cut a passage through the bark, and pushes its castings backward out of the hole from time to time while it bores upward through the wood. The insect continues in the larval state from two to three years, undergoing its transformations within the burrows. The final change from pupa to beetle occurs about the first of June of the third year, after which the beetle gnaws through the bark that covers the end of its burrow and comes out in the night. It keeps at rest during the daytime, and flies about at night in search of food, companions and suitable places for depositing its eggs. Trees standing in grass and old neglected orchards are their favorite places for the work. If the orchard is given cultivation, and the trunks of the trees, at least at the base, are washed with a strong soap-suds two or three times during June and July, they are not very liable to be troubled with the borers. In the case of the trees of our correspondent I am led to believe from an experience that I have once had that his trees contained the minute young borers when they were planted out. He did not observe their presence at first, killed a considerable proportion of them when discovered, and conditions were not favorable for the depositing or hatching of the eggs of such as escaped. One of the first trees that I ever had seriously injured by borers was a Northern Spy, into the trunk of which I had driven nails to bring it into earlier fruiting. The experience alluded to above was with one hundred apple-trees from a Southern nursery. The second season many of them were ruined by borers. As fast as discovered the larvae were dug out and killed, and I have never been troubled with any since when the soap-suds was applied.

San Jose Scale.—M. G., Bartlett, Tenn. The San Jose scale is perfectly round, or at most slightly elongated or irregular. It is flat, is affixed to and closely resembles the bark of the twig upon which it is found in color, and the largest when fully grown are much less than an eighth of an inch in diameter, or ordinarily about the size of a large pinhead. At or near the middle of each scale is a small, round, slightly elongated black point, or sometimes on quite young wood it may have a yellow or reddish appearance. Where occurring upon the bark or leaves of the twigs in large numbers the scales lie close to each other, frequently overlapping, and are at such times difficult to distinguish without a magnifying-glass. The general appearance which they present is a grayish, very slightly roughened scurfy deposit. The natural rich reddish color of the twig is observed when they are thickly infested, and they have then the appearance of being coated or dusted with lime or ashes. When the scales are crushed by scraping, a yellowish oily liquid will appear, resulting from the crushing of the soft yellow insects beneath the scales, and this will at once indicate to one not familiar with their appearance the presence or existence of healthy living scales upon the trees. They are easily scraped off with the finger-nail, and the bark beneath them will be seen to be of a darker color, the natural color being somewhat changed, as will be seen by comparing the places with spots upon which scales do not occur. The outlines of the removed scales will be noticed upon the bark, and the circumference is frequently changed in color, becoming somewhat purplish. Where the scales do not occur too thickly they are more noticeable, and especially upon young reddish twigs, as they there appear of a light gray color. During the winter the insects remain in the half-grown to nearly full-grown condition. The young begin to hatch and crawl out from under the female scales shortly after the trees begin to leaf out, and from this time through the summer there is a constant succession of generations. The young louse is very minute and of a yellowish color. They soon settle upon a suitable place, and each begins to secrete a scale, and being so prolific and having so many generations in a single season they soon greatly injure or destroy the tree or plant upon which they are fixed. Remedies.—In many cases it would be most economical to dig out and burn the infested trees and start anew with clean stock. This scale is a sucking insect that can only be killed by being brought into contact with some such insecticides as whale-oil soap, kerosene or petroleum. Strong applications of these cannot be used during the summer, on account of injuring the foilage, but by being sufficiently diluted with water and frequently applied the scale may be kept within control. After growth has ceased in the fall and during the winter much stronger applications may be used, and from the results following recent experiments by Prof. Smith at the New Jersey Experiment Station it is believed that trees may be sprayed at any time in winter with either undiluted or a very strong solution of petroleum without injury to the trees if care is taken to prevent it coming in contact with the roots of the trees, and every scale touched by the oil is bound to give up the ghost.——The cracking of the bark on your trees may be caused by sun-scald or from a long period of extreme heat and drought, especially if the trees are not kept thrifty by cultivation. Shade trunks from midday sun to prevent sun-scald, or keep the trunks whitewashed. In the case of your trees we think it very likely that scraping off the rough bark and giving them one or two thorough scrubbings with strong soap-suds would prove beneficial. If they are growing in sod, plow shallow, dig around them and apply barn-yard manure.

BUTTERFLIES AND MOTHS

[CONTINUED FROM FIRST PAGE]

which it is viewed. Often markings of white and black are used—as artists use them—to accentuate and emphasize the brilliant colors, making them brighter by contrast.

This is very strikingly shown in the Monarch (Anosia plexippus, or Danais plexippus), commonly known as milk-weed, butterfly, at once one of the commonest and one of the most interesting of our butterflies, on which an entire volume has been written by an American naturalist. In the Monarch butterfly the ground-color of the wings is a light orange-brown, on which the veins are traced with decided strokes of black, while a broad margin of black borders each wing. This broad marginal band of black is lit up by a double row of small white spots, with a series of white dashes outlining the entire edge. The effect of this combination is very striking. The expanse of the wings is four inches.

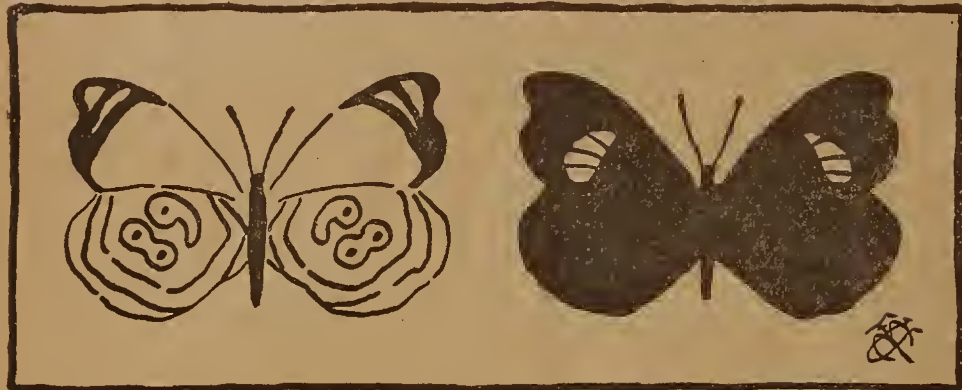
"It is found in the summer-time," says Mr. Scudder, "over almost the entire continent, certainly as far north as into the Dominion of Canada, and yet it is probable that it does not exist in the winter further north than the Gulf states. It has extraordinary powers of flight, more so than any known butterfly, and every autumn, when abundant (after first collecting in vast flocks or bevies of hundreds of thousands, changing the color of the trees or shrubs on which they alight for the night), migrates southward in streams, like our migrating birds. After passing the winter on the wing, without, so far as known, hibernating in torpidity, it leaves its winter quarters in the extreme South with the opening spring, and flies northward, not in flocks or streams, but singly. . . . North of the farthest points to which the wintering butterflies have journeyed in the spring there appears to be but one brood a year, South there are two, and in the extreme South possibly more.

"As a further proof of the transcendent powers of flight of this butterfly it may be mentioned that it has been seen at sea five hundred miles from land, and has within thirty years spread over nearly all the islands of the Pacific and even to Australia and Java. Undoubtedly carried in the first place by trading or other vessels to the Hawaiian islands, and thence to Micronesia, it has unquestionably flown from island to island many hundreds of miles apart."

Singularly, this elegant creature is imitated; not for its beauty, but for its unlovely qualities. The whole body of both sexes of this butterfly has a rank odor, so that birds commonly let it alone, as an undesirable morsel. How another butterfly should find this out, or how, after finding it out, it should be able to take advantage of it, is a mystery. But it is a fact that a butterfly of a wholly distinct group (Basilarchia archippus) very closely imitates the colors and markings of the Monarch, and so shares the latter's immunity. This imitator is very aptly named the Viceroy. The Viceroy is somewhat smaller than the Monarch, the expanse of the wings being about three inches. It differs also in some other respects, but when it meets a bird both parties are usually in a hurry, and a general resemblance is sufficient protection on a flitting view.

This affords an excellent example of that protective mimicry which is one of the most interesting studies in nature, and which is abundantly illustrated throughout the whole order of scale-winged insects (Lepidoptera), both among butterflies and moths.

South America is prolific of wonderful and beautiful butterflies. There and in Central America are found the owl-butterflies, of the genus Caligo, of which there are a number of varieties. The hues of the upper side of the wings are very rich and resplendent, combining velvety dark brown, orange and shades of blue and purple, reminding the beholder, indeed, of a great pansy in full bloom. But the under side of the wings forms a great contrast to the gorgeous hues above. This lower side is of a general brownish hue, with markings of white and yellow, while in the middle of the hind wing on each side is a large black spot, perfectly simulating the eye of an owl. Wavy lines, crossing and recrossing the wings, exactly imitate the overlapping feathers in the plumage of a bird. The front wings are so shaped as to represent the owl's pointed ears, and with two great eyes looking at you from below, a single glance says, "Here is an owl!" Snakes, lizards, toads and the smaller birds, from all of which the butterfly is so much in danger, have a well-merited fear of the owl, and are not likely to pause for more than a single glance. Instead of something to eat, they see something to fear—a marauding bird of prey! This butterfly grows to a great size, the largest specimens (of Caligo euryloches) measuring nine inches across the wings. Though the wings are held erect in resting, the protective resemblance remains even then, for half the owl-face, with one staring eye, is distinctly seen on each side, and that is quite enough to keep its enemies from investigating too closely.



"89" BUTTERFLY (Natural size)

ZEBRA SWALLOWTAIL-BUTTERFLY (Natural size)

Of a wholly different sort is the mimicry of the leaf-butterfly (Kallima inachis), a native of India. The wings on the upper side are of mingled brown and orange, together with a peculiar shade of blue blending with the brown—a beautiful pattern, though not so striking as that of the upper side of the wings of the owl-butterfly. But the under side of the wings of the leaf-butterfly is of a dull brown—the color of a withered leaf. Thus, when the butterfly rests, according to the custom of its tribe, with the wings erect, it presents the exact appearance of a sere, dead leaf. The projecting tips of the folded wings join together and just touch the supporting twig, seeming to form the stem of the leaf. More amazing still is the fact that the fungi that gather on withered leaves are painted on the imitative wings of this butterfly with such minute perfection that several species of fungi may often be detected on the wings of a single butterfly.

The hungry bird, speeding expressly after the brilliantly painted wanderer of the air, sees him suddenly vanish into space. He has gone nowhere. There is a dead leaf on yonder twig, but that is nothing. What became of that butterfly? It would seem as though the butterfly might smile when its enemy has passed by and it again unfolds its rich color to the sun.

Quite distinct from these imitative markings are some that seem to be for no special purpose, and might be termed the fantasies of nature. Of such as the "89" butterfly (Callicora clymena) of South America. The color of the wings on the upper side is blue-black, with small patches of green, seeming transparent, like stained glass. On the under side the fore wings are red, while the hind wings are gray, both marked with black. On the hind wings are black markings, making the figures 89, as seen in the illustration. On the left wing the figures are as we should write them, but on the right wing they are reversed, as if, when the fairy artist had painted one side, the thoughtless butterfly had closed its wings together and simply transferred the markings.

A distinct group, or subfamily, of butterflies is that of the swallowtails, so called because the lower ends of the hind legs are prolonged into two distinct tips. These are sometimes short, but in some are of great length. One of the finest specimens is the zebra swallowtail. The wings are black, transversely marked with broad and narrow stripes of white, as shown in the illustration. Besides these stripes there are markings of bright red and blue, which cannot be shown in the engraving. The wing expanse is from three to nearly four inches.

We do not think of butterflies as very injurious, since they practically eat nothing except the honey drawn up by the long suctorial tongue. But their larvae, or caterpillars, have hard, biting jaws, feed on leaves, and in some species are extensively destructive to vegetation. Such is the case with the cabbage-butterfly (Pieris rapae), a small, yellowish-white butterfly, with a wing expanse of about two inches. This little intruder was introduced into this country from Europe at two different places and times—at Quebec in 1860, and at New York in 1868. Gradually the two invading armies joined forces and overspread almost the entire continent. The cabbage-butterfly is very prolific, producing three broods in a season. The caterpillar is destructive to vegetation.

The moths have a greater reputation for destructiveness, largely on account of the ravages of those household pests, the clothes-moth and the carpet-moth. Yet we must not condemn all the moths for the evil example of certain ones. One of the fairest products of civilization—silk—is due wholly to a moth (Bombyx mori), the larvae of which are known as silkworms. These useful creatures are very delicate, and quite limited in their range of feeding, confining themselves in the Old World to the mulberry, though accepting in America the osage orange.

Like the butterflies, the moths afford many beautiful examples of productive mimicry. You may see a Catocala of a beautiful silky silver-gray color resting on the bark of a white birch, and resembling it so closely that when you look away and look back again you can scarcely find the insect you know is there. One of the largest moths in the world (Attacus atlas), of India, is so marked that the end of the upper wing closely resembles the head of the venomous and deadly cobra. As the moths

[CONCLUDED ON PAGE 20 OF THIS ISSUE]

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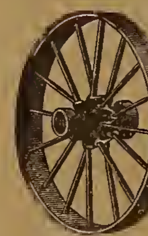

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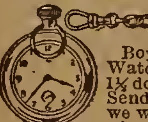

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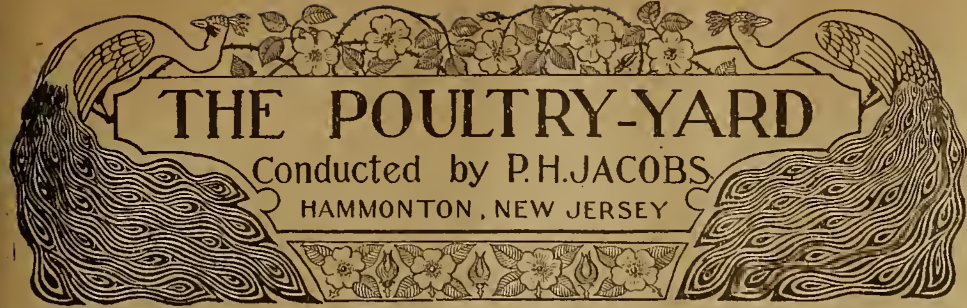

MOLTING OF FOWLS

The molting of hens is usually from June to November, sometimes extending well into the winter. The molting period is not the same with all hens, nor does a single hen begin at the same period every year, but usually a month sooner or later. For instance, a hen beginning to molt in June may not begin the next year until July, and such hens will molt later every year until their molting period reaches into the winter. The hens that begin to molt early are those that finish their molting and are ready for laying before winter commences. Having then completed their growth of feathers, they are in excellent condition for doing service; but should the process of molting extend into the winter, the hens that have not finished will probably not lay until spring, consequently the matter of molting is one which all who are interested in fowls must consider. The molting process requires three months, and as the production of feathers requires a large proportion of nitrogen and mineral elements it becomes necessary to supply the fowls with something more than grain or grass. Carbonaceous food exclusively is detrimental, as the hen is inconvenienced by the fat stored on the body rather than benefited thereby, and yet the majority of poultrymen feed liberally of grain to their molting hens, in the belief that such food is the best that can be given. The food should consist principally of ground meat, of cut green bone that has a fair proportion of adhering meat, but all fat foods should be avoided. A bran-mash composed of bran and mashed potatoes will provide an agreeable change, while ground bone, milk and a little sulphur in the food once a day will be beneficial. All hens not yet having commenced to molt will prove poor layers before Christmas, and if such hens are fat they should be disposed of. It is a well-known fact, and one that has been repeated in these columns frequently, that if a hen or pullet does not begin to lay before cold weather she will perhaps not begin to lay before early spring; but if she starts in to lay before the winter begins she will continue to lay for a long time or until she becomes broody. Pullets hatched last spring will not begin to molt until next year, as only the hens will molt in summer; but a pullet that was hatched very early—about January or February—may molt, though the chances are that she will not do so until next year. Clean, dry quarters should be provided for the hens that are molting, and lice must be kept down, as the hens that are molting will quickly succumb to lice, owing to the debilitating effects of the process. As to the males, they should have been sold off long ago, as it does not pay to keep one that is molting, unless such male possesses some characteristic that is sought, and the sooner the males are sent to market the higher the prices they will bring.

PROFITS IN POULTRY

The most important feature in poultry-raising is the cost. It is certain that properly managed poultry-raising is a paying business. In what branch of farming can we obtain greater interest on our money? The estimated value of the hen is one dollar. If she lays one hundred eggs the first year, and one hundred and twenty-five the second, the value of the eggs is at least three dollars. Allowing each hen one gill of corn a day (which is sufficient), in one year she will consume less than one and one half bushels. Rating corn at fifty cents a bushel, the whole amount of expenditures is but seventy-five cents plus the value of the hen, one dollar, or one dollar and seventy-five cents, leaving as a profit your hen and one dollar and twenty-five cents in cash. If you keep a flock of twenty hens, a good but inexpensive poultry-house with fixtures and all extras for poultry can be paid for in one year by the excess over one cent an egg, as in the winter months eggs are sometimes worth thirty cents a dozen. This is simply the egg basis. This, with the raising of young chicks, will pay all the expenses and leave a handsome profit. Great judgment must be used in selecting stock, and great attention should also be paid to breeding.

GRIT AND THRIFT

The larger the number of fowls, the greater importance it is to provide them with grit. It can be easily ascertained whether they have a sufficiency by opening the gizzards of those that die or are killed and examining the quality of the contents. If the edges of the stones are sharp it is a sign that they are well supplied. If, however, the edges are blunt and round it is a sign that the poultry requires sharp grit. Chickens are often put on a grass field where there is no sharp grit, and the owner cannot conjecture why they do not thrive better. Sharp grit is to the poultry what teeth are to the human family. Fowls that are not furnished with it sometimes have diarrhea, etc. Flint grit is the best of any that can be used, as it is harder than any kind. It is not obtainable in every district, but the best substitute must be obtained. Anything really hard and sharp will answer, such as old china or earthenware if not broken in too large pieces, and old mortar broken up is very good. Oyster-shells help the digestion, also, and are useful. When fowls have plenty of grit they are kept in good condition, because their food is better digested.

ONE BREED SUFFICIENT

If you desire to keep the pure breeds, begin with only one, and make yourself familiar with all the points of the standard relating to it, as well as the natural characteristics of the breed. You may then venture with a second one; but it must be borne in mind that it requires five times as much caution to keep two breeds as one. If only a single breed is kept there is no danger of any crossing or mixture, and the birds may run at large, providing they are not too near the neighbors'; but the introduction of a second breed necessitates good, high, close fences, confinement, and great care in properly collecting and separating the eggs. Our most successful poultrymen are those who make a specialty of one breed. They then aim to keep the best, and can easily do so, as long familiarity and experience with a flock of fowls all of one kind permit the breeder to detect at a glance all the defects, owing to the constant impression of the characteristics of his mind by frequent observation; while, if his attention was directed to several breeds, he would not so readily notice the details essential to perfection in all points.

DURABLE WHITEWASH

If the whitewash is made with skimmed milk instead of lime and water it will be more durable and last much longer. For a durable red paint a mixture of fresh bullock's blood and lime is excellent, and it will resist water. If ordinary whitewash be used, a pound of flour, two pounds of alum and a pound of salt, the two latter dissolved in hot water, the former added until a thin paste is made, and the whole mixed with five gallons of whitewash, will be very durable.

SMALL COMBS

One of the causes of the popularity of the Light Brahma is its small pea-comb, which lays so close to the head as to escape being frosted in severely cold seasons. This is a very important matter in winter laying, as frosted combs often cause a cessation of egg production. A true Light Brahma is large in size, the cocks being required by the standard to weigh twelve pounds and the hens ten. As they are well feathered over the body, and feather slowly when young, they are hardy and more easily raised than the chicks of some breeds. As a cold-climate bird they have no superior. The smaller breeds, however, are more active and mature earlier.

IMMATURE PULLETS

If early development is natural with some breeds, as with the Leghorns, it is a valuable quality; but when the pullets are forced to lay early by stimulants or highly concentrated food, it is an injury, as it taxes the vitality too early. A pullet that is forced will lay very small eggs for awhile, and when she ceases, in order to rest, she will not begin again as soon as a matured hen. She becomes prematurely old, and does not prove on the average as profitable as when she is given ample time to mature before beginning to lay.

DISEASES OF DUCKS

The duck is afflicted with but few diseases, the most prominent being vertigo and convulsions. The first comes from overfeeding, and can only be cured or prevented by keeping them on a grass diet exclusively. Convulsions are caused by dampness, poor food and filthy coops. The best remedy is to clean out the coops, make them dry, and feed on nourishing food. Ducks should always have dry quarters at night.

CORRESPONDENCE

COAL ASHES.—Please tell Mr. B. F. Terhume, of Chicago, that his hens need the lime that is in coal ashes. I give my hens broken egg-shells, and they will hardly look at them, and that at the laying season; but they get all the lime from the coal ashes that they want, and they need a great deal. My chicks four days old crave it. They need it, and I give it to them. I sift off the fine ashes and give the small bits of lime, and they eat it greedily. Chicks not used to the lime might possibly eat too much. J. N.
Port Washington, Wis.

[It is probably the gritty parts preferred, as there is no lime in coal ashes.—ED.]

INQUIRIES ANSWERED

Swelled Heads and Feet.—A. W. H., Gallman, Miss., writes: "What is the matter with my chickens? They have free range; I feed them grain. They swell on the heads and wattles, and their feet and legs swell."

REPLY:—In your climate parasites are liable to attack the fowls. Your details are too inexplicit to give a proper reply. As a preventive try an ointment of carbolized vaseline.

Parasites on Chicks.—L. S., Citronville, Fla., writes: "I have about sixty chicks from three months old down. They are Leghorns. I feed them on grits or hominy. One dies every day or two. They get droopy, stand about, and some of them go blind. Sometimes there are only about half a dozen 'jiggers' on their heads, and sometimes thirty, but those with the few 'jiggers' die, too."

REPLY:—The food is not sufficiently varied, and the parasites are assisting to destroy them. Dust three times a week with insect-powder.

Insects in Gizzard.—P. H. F., Bloomsburg, Pa., writes: "1. Will any seed, after passing through the crop and gizzard of a fowl, germinate? 2. Will the egg of an insect or worm, or the insect or worm itself, propagate by species after passing through the crop or gizzard of a fowl? 3. How does the germ or microbe or bacillus of the gapeworm get into the windpipe of the chick? 4. Are there any worms in the windpipe of the chick when they first begin to sneeze? Can a chicken sneeze anything out of its windpipe? 5. How long has it been since gapes were first known in this country?"

REPLY:—1. The gizzard usually destroys all seeds, but seeds have been distributed by birds and germinated. 2. There is a worm that lives in and attacks the gizzard itself. 3. It has not been fully determined, but is believed by picking up substances from gape-infested locations. 4. Not always; chicks have been known to discharge the worms by sneezing or coughing. 5. It is unknown; gapes are mentioned in the oldest books.

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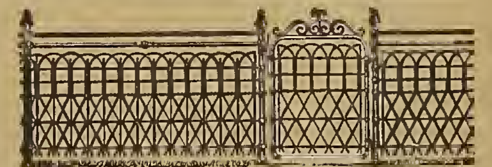

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QUERIES

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To Remove Paint from Glass.—S. E. B., Dolph, Oreg., writes: "What will take dried white paint off window-glass?"

REPLY:—Mix one part of unslaked lime and three parts of potash. Apply thickly with a stick, let it remain half an hour or more, then wash off. Sometimes a second application is necessary.

Field or Horse Sorrel.—T. J., Luther, Mich. The field-sorrel spreads both by seed and underground root-stalks. In some localities it has become very troublesome. Thorough cultivation in crops like corn and potatoes, followed by a smothering crop like clover, and a short crop rotation like corn, wheat and clover, are the best means of overcoming it. In permanent timothy meadows it will increase rapidly.

Currant Wine.—J. F. I., Belt, Mont. To one gallon of mashed currants add one quart of boiling water; let stand for twenty-four hours, then strain through a coarse bag, add three quarts of boiling water and four pounds of granulated sugar. To keep from fermenting bring the sweetened juice just to the boiling-point several times, finally bottling it when hot. If properly done it keeps sweet. If fermented wine is desired, put the juice in stone jugs, loosely corked, and keep in a cool place. Bottle in October, when fermentation ceases.

Cabbage-worm.—S. S. P., Raymond, Ill., writes: "I think I've got a 'cinch' on Mr. Cabbage-worm. As a last resort I took the hot suds out of the washing-machine and poured it liberally on the cabbage. I repeated it every wash-day, and found it a complete success. I put it on quite hot, enough to spoil an egg or a worm. I am strongly of the opinion that it is a sure remedy for the cabbage-worm, and also that it induces heading early and firm. I am sure that after this treatment I had the most solid heads of cabbage I ever raised."

Carp Questions.—E. C. S., Maple Mill, Ill., writes: "1. How long does it take fish-eggs to hatch? 2. How much should a fish weigh in one year's growth—the carp variety? 3. On what do they feed?"

REPLY:—1. Time varies with temperature; from about two to five or seven days. 2. Growth depends on supply of food. Carp hatched in May have been known to reach a length of ten inches and weigh a pound by fall, and to weigh two and one half to three pounds when one year old. 3. The natural food consists of worms, snails, insects, etc.; artificial, of animal flesh, corn, oat or wheat meal, bran, etc.

Protection Against Striped Bugs.—F. L. W., Berkshire, Ohio, writes: "In a recent issue of your excellent paper I noticed one article where a man was anxious to know how to get rid of the striped bug on melons and cucumbers. My remedy is very simple and effective: Just outside the seed put one squash-seed, which comes up about the same time the other seeds do. It is tender and larger than melon-plants, and the bugs seem to relish it. Go out in the morning before sunrise and you will find nearly every bug on the under side of the squash and can easily scoop them off. After the plants get large enough so they are out of the way of the bugs, pull up the squash and lay it beside the hill and you will find the bugs under it as long as it lasts, and you can stamp and kill them easily. I find dry wood ashes the best of anything I have ever used for ants and weevils, which eat off the plants at the surface of the ground. Now, if some one will tell me how to get rid of the large squash-bug, called stink-bug, I will be thankful."

Plaster of Paris Cement—Bordeaux Mixture.—L. L., Polk, Ohio, writes: "Please give me a receipt for a cement to mend plaster of Paris ornaments. I had the misfortune to break a beautiful statue, and would be truly thankful to know how to mend it. ——What is the Bordeaux mixture for spraying vines and fruit-trees?"

REPLY:—Soak plaster of Paris in a saturated solution of alum, bake in an oven, grind to powder, mix with water, and apply. It sets like granite, and is capable of taking a high polish.——Bordeaux mixture—Copper sulphate, six pounds; quicklime, four pounds; water, forty to fifty gallons. Dissolve the copper sulphate by putting it in a coarse bag suspended in several gallons of water in a wooden vessel. Slake the lime, mix the two, and add enough water to make forty or fifty gallons. For very tender foliage, like the peach, use six pounds of lime. The mixture will stick better if there is added to it a pound of hard soap dissolved in hot water.

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Fatal Symptoms.—A. R., Fulks Run, Va. What you describe are fatal symptoms observed in the last stages of several diseases of cattle.

Kicks When in Heat.—J. T., Dorset, Minn. If your mare kicks when in heat, to such an extent as to make her unmanageable, you may either breed her, have her spayed (a rather dangerous operation to mares even if well performed), or leave her severely alone while she is in season. It cannot be advised to drug such an animal, because the effect of the drug may prove to be more troublesome than the kicking.

Enlarged Thyroid Glands.—G. M. R., Middletown, Ohio. The two small lumps on the throat of your horse are the somewhat enlarged thyroid glands (a slight case of goiter), and are of not much significance. They may remain unchanged during the whole natural life of the animal, and may never do any real harm. Such enlarged glands can be removed by a surgical operation, but the operation is a dangerous one, and I cannot recommend it, especially as the enlargement is not apt to do any harm and is a mere eye-sore.

Sow Weak in Hind Quarters.—B. E. B., Avery, Mo. If the inability to move in the hind quarters of your sow is not already complete, if the pigs have been weaned, and thus the great drain upon material which the organism does not possess in sufficient quantities is stopped, and if you continue to keep the sow in a clover-field, or on food sufficiently rich in nitrogenous compounds, lime salts and phosphates, and not containing too much acid, your sow will have a chance to recover, or at any rate will improve. See other numerous answers to similar questions in recent issues of the FARM AND FIRESIDE.

Little Flies.—B. G. B., Dalton, Ky. It is rather difficult to protect horses and cattle against the attacks of flies when outdoors or in a pasture. The farmers in Holland endeavor to protect their cattle while in pasture by covering them with thin muslin blankets. Washing the animals repeatedly with a decoction of walnut-leaves has been recommended, but having no experience I cannot say whether the protection is a complete one or not. I am inclined to doubt it. The small flies which usually attack the eyes are probably best warded off by applying to the eyelids a little extract of gentiana.

Pyemic Arthritis.—J. J. S., Springville, Pa. What you describe appears to be a case of what may be called pyemic arthritis, an infectious and usually very dangerous disease of new-born animals. If the young animal is not too young, and every abscess is promptly opened and disinfected, a recovery may be, and often is, taking place; but it is one of those diseases to which the old adage of the ounce of prevention being better than a pound of cure may justly be applied. The infection, in most cases at least, takes place through the open umbilical cord when the colt is born, or very soon after. The prevention, therefore, consists in at once closing that cord by means of a ligature when the colt is born, and if possible even before the cord has become severed.

Legs Swelled and Stiff.—D. L. D., Selden, Kan. You ascribe the swelling and stiffness of the legs of your horses, and the inability of the latter to get up without help when they are down, to the feeding of millet hay. I must say I doubt the correctness of your assertion, at least as far as the millet itself is concerned. It may be, though, that the millet hay was spoiled, and that the spoiled condition of the same and the abundance of fungous growth it contained are at the bottom of the trouble and caused the morbid changes complained of. It is also not impossible that the infectious principle which produced the septic condition at the bottom of the morbid changes entered from without through the skin, and in that case you will find, on close examination, more or less numerous sores, cracks and pimples in the bends of the joints, but particularly on the posterior surface of the pastern and coronet joints. If you find such sores, etc., make twice a day a liberal application of a mixture composed of liquid subacetate of lead, one part, and olive-oil, three parts, to all of them; keep the horses on a perfectly clean and dry floor, keep the swelled legs clean without using any water to clean them, feed nothing but perfectly sound and clean food, free from mold or fungi and any other contamination, and keep the horses on their feet as much as you can. Whether you will succeed in effecting a cure will depend upon the extent to which the septicemia has progressed and the amount of destruction already caused by the morbid process.

Swine-plague.—P. W. A., Lower Lake, Cal. What you describe is one of the milder forms of swine-plague. Wash the eruptive spots with a two or three per cent solution of creolin, and use a solution of nitrate of silver (two grains dissolved in one ounce of distilled water) as an eye-water, to be applied twice a day. If the pigs are not too young they will probably recover.

An Abscess, a Tumor or an Enlarged Thyroid Gland.—H. S. G., Hopedale, Ill. It does not proceed from your meager description whether that "lump" on the neck of your sow is an abscess, a tumor or an enlarged thyroid gland (a case of goiter). Have it examined by somebody familiar with the anatomy of the parts involved, and if it is then found to be an abscess, make an opening at the lowest point, so that pus and other contents can freely escape, and then fill the cavity with absorbent cotton saturated with a two-per-cent solution of carbolic acid. Renew this dressing twice a day and a healing will soon be effected.

Death of a Calf.—C. K., Mount Vernon, Ohio. You are right; the symptoms observed are not sufficiently complete to enable me to base upon them a reliable diagnosis, notwithstanding that a few cases somewhat similar to yours have been reported to me from other parts of the Pacific slope. Besides this, I am not sufficiently familiar with certain conditions more or less common to northern California, Oregon and Washington, that seem to exert a peculiar influence upon the health of live stock. Only one thing is sure; namely, that your calf suffered from a severe affection of the nervous system, but particularly of the brain. Cases like yours should be made a subject for a thorough investigation by the experiment stations of all three Pacific states, which have all the necessary means at their command. It is useless to advance theories based upon mere possibilities.

Probably a Case of Pyemia.—L. P., Bristol, S. D. The multiple abscesses, one in the parotic region (perhaps in the parotic gland itself) and another one in the submaxillary region, the resemblance of the contents of the abscesses to curdled milk, and the fact that the cow has been dehorned, make it highly probable that you have to deal with a case of pyemia, and that the infection took place when the cow was dehorned. It is true an actinomycom is also apt to break, but the contents are thick and ropy or stringy, and not at all like curdled milk. The next time an abscess breaks, correct and enlarge the opening in such a way in a downward direction that all the contents can freely escape, and if it is found that the abscess has its seat in a salivary gland, or that a salivary gland has been lesioned and saliva, a transparent and somewhat sticky fluid, is flowing out as soon as the cow is masticating her food, inject some tincture of iodine into the abscess, and soon after fill up the whole cavity with absorbent cotton saturated with a two-per-cent solution of either carbolic acid or creolin, and repeat this dressing twice a day until a healing has been effected. An injection of tincture of iodine will not be required in an abscess not situated in or connected with a salivary gland, but the rest of the treatment—the dressing with the saturated absorbent cotton—must be the same. In enlarging the opening of any of the abscesses great care must be taken not to cut a large blood-vessel. If a small one should be cut the bleeding can be stopped by at once filling the whole abscess with cotton.

"Seedy" Wall.—J. A. S., Norwood, Mo. What you describe is a so-called seedy-toe, or rather seedy wall. First have the separation, or fissure, thoroughly cleaned by cutting away the separated wall as far as necessary with a sharp hoof-knife, then if you can get any one who knows how to apply it, build up all that has been cut away with Defays' artificial horn. This, however, can be successfully done only if all the surfaces are perfectly clean and after every particle of fat has been removed by carefully washing the surfaces with ether. As the artificial horn will be sufficiently hard and solid in a short time, the horse can then be shod the same day. If, for one reason or another, the artificial horn cannot be used, the separation must likewise be cleaned to the bottom and be laid free by cutting away the wall as far as separated. It must be kept in mind that loose or separated horn will never unite again, and if not removed will be an obstacle to the process of healing. This done, the empty space should be dressed with absorbent cotton saturated with a resinous tincture (tincture of aloes, one to four, will answer); then a good bar-shoe, provided the horse has a good sound frog, should be put on, but be made in such a way that there will be no bearing where the separation is and where the horn has been cut away. After the bar-shoe has been put on the empty space between the upper surface of the shoe and the wall of the hoof, where a part of the latter has been cut away, should be filled up just tight enough to make it stick, with absorbent cotton saturated with tincture of aloes. If the whole operation has been performed in a correct manner the shoe may not need a resetting in less than four weeks; but if not, the shoe must be reset and the dressing be renewed sooner.

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THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

FARMERS have reason to rejoice over the fact that through their persistent efforts the Grout bill was rescued from oblivion. The chairman of the agricultural committee, who represented an agricultural constituency, much to the surprise of the country at large, opposed the bill and prepared a substitute for it. The substitute was unsatisfactory. The original bill was demanded. Speaker Henderson insisted that some action be taken. The result is that the Grout bill is now before the House, with fair prospects of becoming a law. This is a significant victory for the farmer, and demonstrates the fact that when his demands are just, and his cause is presented and championed by able men, backed up by the persistent appeals of the farmers' organizations, he can obtain fair treatment.

* * *

"Education" quotes the following pertinent paragraph from Col. Francis W. Parker's address at Quincy, Massachusetts. We are glad to give it wider circulation in our pages: "We stand to-day at the beginning of an educational movement that means the salvation of the world; and its elements are faith, spirit, open-mindedness and work. The teachers are not responsible for what wrong ideas may exist, nor can school committees be justly blamed. The common school was born of the people, it is supported by the people, and its faults are found in the people. The people must demand, and they will receive; they must knock, and it shall be opened unto them. We are bound by tradition, by medieval ways and deeply rooted prejudice. The good that has been done is simply a foretaste of what is to come. Our ideals are low. The future demands an education into free government, a strictly American education—an education to meet the demands of these times, with their world problems that are weighing us down, and the ever-increasing duties of citizenship. I repeat, not by the guns of a Dewey, or the battalions of Roberts or Kruger, must these problems be worked out, but in the common school, where the quiet, devoted, studious, skilful teacher works out the nature and laws of life, complete living and the righteousness that is to be."

* * *

It is indeed true that the faults of our common-school system are found in the people. Observation shows that the schools of a community are such as the majority desire, else they would be changed. The schools are a very good index of the moral tone of a place, and one needs but to know the teacher to know the community. A good community—that is, a community where a healthy public sentiment prevails, and where truth and honor are held sacred, laws reverenced, and the good that is to be ardently desired—will not long tolerate a poor teacher or a corrupt school-board. The latter is so repugnant to the sense of right and justice that must prevail that the people will use the most potent weapon they possess—the ballot—to overthrow its power and secure good schools. It is senseless twaddle to say that the majority desire good schools, but cannot secure them. The common schools of a township or county write in living letters the measure of the desire.

* * *

The late Prof. Elijah Cook, Past Lecturer of Maine State Grange, in his last lecturer's report to that body, inspired them with the following words: "We must all realize that we should be seeking progress all the way from the cradle to the grave. It is not doing well that makes people happy; it is doing better. It is inspiring indeed to read the history of the early Patrons of Husbandry and see how much faith, hope and courage they put into the organization of this order. Had not Kelly's faith and courage been large enough and broad enough to reach from earth to heaven we should never have heard of the Patrons of Husbandry. Kelly seemed to see the end from the beginning, and realize that the order would become immensely strong and be a wonderful help to the farmers in many ways, and no discouragements, though they rose up sometimes mountain-high, could cause him to doubt or question for a moment the ultimate success of the grange. At one time debts were accumulating, and payment became very urgent. Kelly owned ten city lots, where he had made an investment for the benefit of his children. He gave the grange the full liberty to raise all it could by mortgage on these lots and pay off the more important debts. His wife fully consented, as neither doubted for a moment that success would crown their efforts. Another incident which showed something of the grand spirit of those noble men to whom we owe so much was when Kelly had been sent out by the national grange to enlarge the order. At the second place he visited he failed to organize a grange, and went to see his friend Mr. M. F. McDowell, of Wayne, N. Y., whom he had previously met in Washington. A hard snow-storm came on, and McDowell took care of and carefully entertained Kelly for three days, when the storm sufficiently subsided for him to go on. At the departure McDowell gave Kelly much encouragement, and showed his faith in his words by also giving him fifty dollars in money to help him on his way. Glimpses like these show the heroic character of those who labored so untiringly to establish the Order of Patrons of Husbandry.

"How much we need in every grange of the country zealous, earnest, capable men and women, who are enabled to see what is best and noblest in life, and are always ready to help the grange to a higher level. If Kelly, thirty years ago, could see the need of united effort among the farmers of a nation, it must be ten times more apparent now to every Patron of Husbandry."

* * *

Such a tribute to the dead and exhortation to the living must needs bear fruit. When we think of the trials and hardships the pioneers of the grange had to overcome their achievements appear indeed wonderful. But even they could not comprehend the vast work they were doing, not only for the agricultural class, but for the nation. We of to-day have a good deal to say of the work we are doing, and the difficulties we meet. We do not consider that the forests have been cleared, the streams spanned by these heroic souls. A few disappointments, two or three meetings without a quorum, a derelict member or two, petty jealousy of some successful brother or sister, or some other equally groundless excuse, serve to wean us from our grange, and make us declare there is no good in it. Persistently these words ring, "Sleepest thou? Couldst not thou watch one hour?" And the last call to the fainting ones, "Sleep on now, and take your rest; it is enough, the hour is come." I can but believe that those words speak the same truth to-day that they did two thousand years ago. The grange is the logical outcome of centuries of human endeavor. To be true to it is to be true to the dearest instincts of the heart, true to self, to home, to country. It is the voice of the farming class, the exponent of its rights and duties. If we cannot endure hardships for its sake, if we cannot watch a few hours, if we cannot suffer inconvenience for the good it will do us, and the good we are enabled to do others through it, then must that saddest of all confessions of human weakness, human inconstancy and neglect that has rung for ages, and will ring for all time to come, be applied to us, "Sleep on now, and take your rest; it is enough, the hour is come."

* * *

If members of the grange comprehended the meaning of the fact that hundreds of thousands of the most isolated members of the human family, who, by training, tradition and environment, are naturally averse to organization, are organized into a compact body mutually benefiting one another and contributing their quota to the development of the material and intellectual interests of the nation, there would be such a revival of enthusiasm and devotion in the grange as has never before been witnessed. The organization of the farmers into one great brotherhood is as truly a manifestation of the spirit of the nineteenth century as is the endowing of colleges, the founding of hospitals and homes, libraries and art museums, and the many, many avenues through which men and women seek to elevate the human race. The grange is no more an isolated institution than is the Drexel Institute, the Tuskegee school, the Carnegie libraries, or the magnificent churches and schools dotting our land. All are links in the chain that binds man to man, making of them brothers the world over. Each has its characteristics peculiar to its needs and desires, and suited to the people it must serve. The grange seeks to develop the best traits in mankind, and to suppress the vicious; to train its members to business methods, in order that their condition may be ameliorated. It builds club-houses in the rural districts; it furnishes music and recreation; it fosters libraries and improves schools. It is to the rural community what the club and library and school are to the town. Like all other institutions, its usefulness is conditioned by its individual members. If true to its teachings, it serves to bring not only farmers into close sympathy with one another, but seeks to fit each individual for the highest and best that all society has to offer. Manifestly, the more we give to it, the more will we and our children's children derive from it. Let us not foster prejudice and class distinctions. Let us each fit ourselves for the best, believing that whatsoever we are able to enjoy we will enjoy.

* * *

We are in receipt of the proceedings of the Department of Superintendence of the National Educational Association. Of especial interest to us are the splendid addresses of Dr. Nicholas Murray Butler and Professor Atwater. Dr. Butler in an able and scholarly manner discusses the subject of "Education at Close of Century." In a masterly way he sketches the history of the educational movement of the century, and indicates its meaning to us. He says, "As the century closes the soundest educational philosophy the world over teaches that the individual alone is nothing, but that the individual as a member of society and of a race is everything. Selfhood, which can only be attained by entering into the life-history and the experience of the race, is now put in the high place which was about to be rashly filled by selfishness. True individualism, which would enrich the life of each with the possessions of all, is well nigh supreme, and sham individualism, which would set every man's hand against his fellow, is disposed of, let us hope, forever. Education rests securely upon the continuous history of man's civilization, and looks to the nature of each individual for guidance in the best methods of conducting him to his inheritance, but not for knowledge of what that inheritance is."

To those who believe that the chief expenditure of the world is for armies and navies, the following statement is significant: "The annual expenditure of the United States for common schools is quite equal to the sum total of the expenditures of Great Britain, France and Germany combined upon their powerful navies. It is nearly four fifths of the total annual expenditures of the armed camps of France and Germany upon their huge armies. It is a sum greater by many millions than the net ordinary expenditures of the United States government in 1880. This expenditure for common schools has nearly trebled since 1870, and during that period has grown from $1.75 to $2.67 per capita of population, and from $15.20 to $18.86 for each pupil enrolled."

Dr. Butler warns us against vainglorious pride. "But pride of achievement should yield to a feeling of responsibility for the future. In the light of the nineteenth century no man dare prophesy what the twentieth century will bring forth. We only know that a democracy shielded by insight into the past, and armed with trained minds, disciplined wills and a scientific method, is as ready as man's imperfect wisdom can make it for whatever may come in the future."

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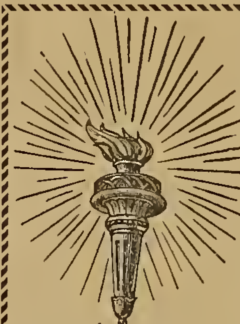

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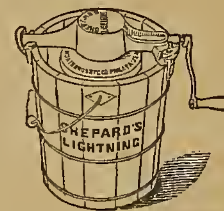

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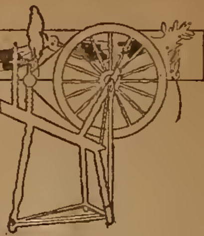

ONE FOURTH OF JULY

By Adele K. Johnson

A DAUGHTER of the American Revolution observed the Fourth of July—Independence day—by giving a Colonial dinner-party.

Did not the colonists come to America seeking liberty to worship God according to the dictates of their own consciences? And in after-years did not their descendants in the Revolutionary times fight in the same blessed cause—independence?

The guests were invited to come en costume; accordingly the courtiers appeared

"In gold and lace,
The noble fathers of our race,"

and the women with the wide skirt, snowy kerchief and cap as worn by Martha Washington. The courtly manners of the men and the dainty grace of the women were very attractive.

As usual, a genuine antique hall-clock solemnly ticked away the minutes beside the wide staircase. On this evening the drawing-room was newly arranged with old-time furniture—an old settee, chairs and tables of ancient days and the inevitable spinning-wheel—while great-grandfather's flint-lock hung over the mantel. This latter received much attention. Its original owner was one of the survivors of the historic Bunker Hill. There were old andirons, and on the mantel stood a pair of ancient candlesticks.

The modern etchings and paintings of to-day were replaced by old-time portraits—two prominent ones of the Father of His Country—and engravings of Colonial landscapes and noted buildings—Faneuil Hall, the Cradle of Liberty, etc.

Artistic and appropriate indeed were two china plaques used as wall decorations. They were delft-blue in color, with a wide border of small stars. One pictured Washington and Lafayette at Valley Forge, the other showed the spirit of 1776—three soldiers with drums and fife gloriously playing "Yankee Doodle," the standard floats high, while their indomitable courage rises still higher. An American flag is patriotically unfurled.

The flowers which were loved and tended in the days of our ancestors were selected instead of the popular favorites of the present hour. The fireplace in the drawing-room was filled with red and white peonies. Fragrant pinks, many-toned phlox, quiet primroses and thoughtful pansies were also charmingly used. For the dinner-table and in the wide window-seats the dainty white lilies which our forefathers, or rather foremothers, loved were chosen. Were not our forefathers of too stern a type of manhood to stoop to see, to love the little beauties of earth, in their busy cares? That was certainly left to the gentle mothers, God bless them!

The china was Colonial blue and white. The table was lighted by white candles. On the white menu-cards, in letters of gold, was printed the national hymn, "My Country, 'Tis of Thee." They contained also a portrait of the noble Washington, and one of Martha, his wife.

The feast was a realistic one, similar to those of the Revolutionary heroes when at home—surely not when on the march or in camp. Meats predominated to a surprising extent. A whole ham was deliciously baked, and game, fish and fowl abounded. The corn-bread of those men of old was served; the gingerbread of the "minute-men" was included in the list, and the famous "election cake," that delectable old receipt, was served in all its toothsomeness, for the pleasure of the young generation. Strong, fragrant tea was also liberally dispensed.

At the close of the dinner the famous toast of Washington, our greatest hero in the struggle for independence, was reverently given by the host:

"May stars forever shine
On thee and all of thine,
God bless our land!"

In memory of the Pilgrims the guests sang "Nearer, My God, to Thee;" then "The Landing of the Pilgrims" was eloquently recited. The song of the Revolution, "Yankee Doodle," was also given with a will.

The stately minuet, the cotillion and Virginia reel were enjoyable. The majority of the guests now arranged themselves to form a tableau, after the painting of the renowned "Peace Ball." A few were honored by being chosen to represent the audience.

Dainty little books, "Colonial Verses," by Ruth Lawrence, in dark blue and white covers, containing quaint, sweet-scented verses on "Mount Vernon," "The Garden," "Washington's Room," etc., were chosen for souvenirs.

Here "the lantern-slide man appeared," as one flippant youth remarked. The slides were excellent, illustrating vividly Revolutionary times and portraits of the heroes of '76—the men who won our liberty and whom we honor this glorious Fourth. When the slide exhibiting "Washington's Tomb" was shown Professor Crichton reverently recited a short descriptive poem:

"Thou dost not sleep in sound of city's toil;
The din of traffic, the murmur of the mart,
Are far away; within thy native soil
We leave you, heart of honor, Honor's heart;
Not in cathedral's gorgeous sculptured gloom,
But beneath thy much-beloved stars, a fitter tomb."

The spirit of the hour was upon us; it seemed as though we had visited that peaceful resting-place on the quiet Potomac. We fervently sang "America:"

"Our father's God, to thee,
Author of liberty,
To thee we sing;
Long may our land be bright
With freedom's holy light,
Protect us by thy might,
Great God, our King!"

WARM DAYS AND WARM TEMPERS

The latter appears to be the natural accompaniment of the former; not that it is necessarily so, but because we allow it to be so. We think our children obstinate and cross, and no doubt they are, but unless we guard ourselves well we may feel somewhat peevish this warm weather, and this certainly will not help us to manage our little ones aright.

I was forcibly struck with a sentence which a friend wrote in one of her letters a short time ago. It was, "When we are all worn out, and cannot appreciate anything, but make some kind of an appearance before our friends, we let the collapse come before those we love the most, and say things that we did not mean and over which the hurt lingers for months and years." We can triumph over a wrong done to us by forgiving it, but it is hard, oh, so hard, to forgive ourselves for hurting one we love. "The Greatest Thing in the World" should be read by us over and over; for surely there is nothing but unselfish love in our hearts, that will make us the wife and mother we desire to be.

Children may be naughty in our eyes when they in their innocence do not realize the fact. We will have greater patience with our loved ones when we realize that our Heavenly Father must needs have patience with our childishness. And yet what a precious thought it is, that the best is within the reach of all. God will enable us to be grown women, not children.

"Consecrated tact" we should all possess. It is not always the best to give an arbitrary command or prohibition to our children. Our authority will not be compromised if we tell the reason such and such a thing will be harmful. Children are full of curiosity—are not we older ones as well?—and it will surely do no harm to tell them why the prescribed course is best. By doing this curiosity is stilled and reason is satisfied, and only in rare instances will a child rebel. To give the reasons after a child has shown a desire to disobey is not always a wise plan. Let the reasons be given with the prohibition.

We should not palliate for an instant the unfilial spirit of contradiction which prevails among some families of children. The parents of such children have evidently allowed them to argue from their standpoint, until a fatal injury has been done them. They fail to see that parental love, in its greatness and tenderness, has only the good of their children at heart, and they should so trust their parents that they will not demand a reason for all that they must do or leave undone. From the beginning the child must be taught to reverence the opinions of his parents, and he should never be allowed to question the strength of a command.

A discontented mother is one who invariably has a "warm" temper. It does not pay us to be discontented. No matter how much we own, if the mind is not at rest we cannot enjoy our possessions; and no matter how little of this world's goods we have, if we are contented we may be happy and rear delightful children. Real contentment can only come from God, and consists in making the best of what comes, or doesn't come, and looking on the bright side of everything. The woman who can control herself under the most trying circumstances is the woman who holds the strongest power in the home; and amiability is not only power, it is mental progression, and should be earnestly sought after even in the summer-time.

ELLA BARTLETT SIMMONS.

HINTS FROM MY NEIGHBORS

Whether one has the washing and ironing to do, as well as all the housework, or has help to do the work of the household, they ought to save all the work they can. One of my neighbors does this by wearing sleeve-protectors, as well as big aprons, when working in the kitchen, feeding her chickens, etc. She says she can wear a dress twice as long with these before it will need washing as she could without them. She makes the sleeves long enough to reach a little above the elbow, gathered into a band to button around the wrist, and at the top pins them to her dress-sleeves with small safety-pins.

My neighbor who moved out from the city this spring brought her pale, delicate-looking baby boy about two years old. A few days ago I saw the little fellow, and instead of the pale, languid, quiet baby he had become a merry, rosy, rollicking boy. I spoke of the change country air had made in him, and his mother laughingly answered, "It is dirt as much as fresh air that has made the change. Until we came to the country he had never worn any but white dresses, and I thought they must be kept spotless. I was worried about his delicate appearance, and consulted a physician. His prescription was, 'Take him to the country, put denim overalls on him, and turn him loose out of doors. When it gets warm let him go barefooted, and don't be afraid of a little dirt. Cleanliness may be next to godliness, but it is only "clean dirt" children get by close contact with Mother Earth.' I am a thorough convert to the 'dirt system' of treatment for puny babies."

My little neighbor across the way came in a few mornings ago and said, "I have been having the most fun."

"Why, what have you been doing?" I asked.

"I have been varnishing all my old furniture with varnish-stain."

I was interested at once, and by her invitation went over to see her handiwork. She had used the walnut-stain on a bedroom set, and it looked like new. She said there were several kinds of stains—walnut, oak, cherry, mahogany, rosewood, etc.—and that the process of applying it was perfectly simple. I went home fully determined to try my skill at renovating. I had a cherry bedroom set that by long use and several movings had become much defaced. As soon as possible I invested fifteen cents in a can of cherry-stain varnish, and twenty cents in a brush. I washed the articles well with soap and warm water, removed all the pulls from the drawers, and then gave each piece one coat of the varnish, bought new brass pulls for the drawers, and the work was complete. I am much more proud of them than I would have been of a new set, and the work was very easily and quickly done. Since then I have varnished a bookcase and screen-frame with walnut-stain, and a writing-desk with mahogany. I had enameled a screen-frame white before that, but the varnish-stains are much easier to use, as they need only one application, while I was obliged to put four coats of enamel on the frame before it looked well. One of my neighbors enameled a bureau, wash-stand and small table to put in a room with a white iron bedstead. They looked beautiful, but took more work than I had the time to do. Furniture renovating has been epidemic in my neighborhood this spring, and I don't know where it will end. One of my neighbors asserts that he expects every day that his wife will begin to stain the plows and harrows rosewood or mahogany, and enamel the mower and reaper.

MAIDA MCL.

TABLE-CENTERS

For use upon small tables one likes a center of linen. They wear better and are always more attractive to the eye than those of wool or velvet.

TABLE-CENTER NO. 1

No. 1 is of gray linen worked in colors. The flowers are first stamped on the material in indelible tapestry-dyes, and are then carried out in the color scheme of the flower or leaf in heavy silk floss—the leaves in greens, the flowers in shades of purples, old blues and subdued brown-yellows. The edge is a very unique piece of work in buttonhole-stitch carried out in pale green silk the color of new leaves. Black and white fails to give a correct idea of its beauty, which well repays one for the labor spent upon it.

No. 2 is worked upon heavy white linen in coarse white nun's-cotton outlined with dark blue nun's-cotton in easy stitches of long-and-short work; but the heavy cotton makes the pattern stand out in a very prominent manner. It is a piece of work calculated to stand constant wear, and will launder well until it is worn out.

It is better to put time upon a large, serviceable piece of work than upon a small one which does not show for the time spent upon it.

B. K.

TO MOURNERS

Alone—alone—aye, terribly alone,
Alone with aching heart and bitter grief,
Yearning in vain for loved ones who are gone,
Seeking in vain for comfort and relief.

Alone—alone—in its most bitter need
Each human soul is fearfully alone;
The depths of others' sorrow who can read?
Or who can probe the anguish of our own?

Alone—in the black abyss of pain and sorrow,
Striving and fighting 'neath its bitter sway,
Ever alone, and finding each to-morrow
But a renewal of the sad to-day.

Alone—aye, so in very truth it seems
To hearts bereft of those they hold most dear,
In whose sad skies no ray of sunlight gleams,
Yet surely there is One abiding near.

O Lord! in pity bow thine ear and hearken,
Open the eyes of those who cannot see,
Of those whose vision clouds of sorrow darken,
And in thy mercy draw them close to thee.

—B. I. Duff.

"CHERRIES ARE RIPE"

Once more the season of fresh fruit relieves the housekeeper from the preparation of made desserts. Yet there is one thing which has to be considered, and that is the rapidity with which each kind of fruit comes to perfection, so that if you grow the small fruits you often have to prepare the surplus in some way so that it shall not go to waste. To my own mind a dish of the ripe fruit, arranged with some green leaves about it, is a most delightful accompaniment to every meal. At breakfast let it come as a first course; at dinner it makes a healthful dessert. The slight acidity of cherries makes them particularly grateful, and there are numberless ways of preparing them. For lunch the following receipt is good:

Fresh Cherry Marmalade.—Remove the stalks from a pound of cherries, and put them in a stew-pan with half a pound of sugar. Let them cook a few minutes, and then add half a pound of currants. Stew them all together until they become thick and pulpy. Set them away, and serve cold.

If you wish to have a very nice dessert without cooking the fruit the following is nice:

Cherry Salad.—Pit two pounds of cherries, and put them in a dish with two tablespoonfuls of sugar and a pinch of powdered cinnamon. Stir them well together, and add a glassful of sherry wine. This, too, should be served very cold. It is best to prepare it just before serving, as after pitting the fruit is apt to turn brown.

Cherry Jelly.—This jelly is quickly and easily made. Fill little cups or molds half full of pitted cherries, then fill up the rest of the cup with milk in which an ounce of gelatin has been thoroughly dissolved and sweetened to taste. Set on ice until hard, and serve with whipped cream.

Fresh Cherry Cream.—Take one cupful of currants and three cupfuls of fresh pitted cherries and three fourths of a pound of sugar. Boil quickly and skim often for about twenty minutes. Then press the fruit through a sieve and stir into the syrup a pint of sweet cream, beating it until it is thick. Serve in glass cups. This should be made about two hours before you wish to serve it, and kept in a cool place.

A dish which looks very pretty and is easily made is arranged as follows:

Sugared Cherries.—Boil a scant cupful of water with half a pound of granulated sugar until it becomes a thick syrup. Put into the syrup one and one half cupfuls of pitted cherries, and let them come to a boil. Take from the fire, and let stand until cool, then put on again and gently bring to a boil. Remove the fruit with a skimmer and place in the dish in which you intend to serve it. Into the syrup put a tablespoonful of lemon-juice or a tablespoonful of currant jelly, and boil until thick, then pour over the fruit. Serve cold. It is very rich and particularly nice with sponge-cake.

Many people are fond of tapioca, and cherries are sometimes prepared with it as follows:

Tapioca Cherries.—About four tablespoonfuls of the tapioca should be allowed to soak all night in a pint of water. In the morning add a pint of pitted cherries and a pint of water, and boil with the tapioca for a few moments. Stir in enough sugar to make it sweet, and let it simmer for fifteen minutes. Keep on ice until ready to serve. Either sweet or whipped cream is a great improvement.

Even in cherry-time come cold, rainy days, and on such an occasion a hot, hearty pudding will not come amiss.

Cherry Bread-pudding.—Line a fairly deep pudding-dish with slices of buttered bread. Fill this with layers of pitted cherries and granulated sugar. Squeeze over the whole the juice of a lemon, and cover the top with slices of bread buttered on both sides. Put a plate over the top, and bake for one and one half hours, putting the dish in a pan of hot water. At the end of this time take the dish from the oven and spread over the top a meringue made of the white of egg beaten lightly with sugar, one tablespoonful to one egg, and return it to the oven just long enough to brown. This may be eaten with the addition of a hard sauce, but is very nice without it.

Cherry Cabinet.—Take a well-buttered mold, and on the bottom lay about six stoned raisins. Cover them with slices of any kind of cake you happen to have, then add a layer of cherries, not pitted, and arrange them as evenly as you can, then a layer of cake, then more cherries, etc. Make a custard of a pint of milk, the yolks of three eggs and three tablespoonfuls of sugar, and without cooking it pour it slowly into the mold, so that the cake will be thoroughly soaked, and set it in a pan of water. Bake in a slow oven for an hour, or until the custard is well set. Turn out of the mold, and serve with either hard or soft sauce.

Nannie Moore.

LETTER-WRITING

In our forefathers' day, when there was more attention paid to education and less to fads in the schools, any advice on the subject of letter-writing would have been superfluous. Then every man and woman was a complete letter-writer in themselves; but now, when the exigencies of the higher education leave children no time to learn how to read, write and spell, a few words on the subject may not be amiss.

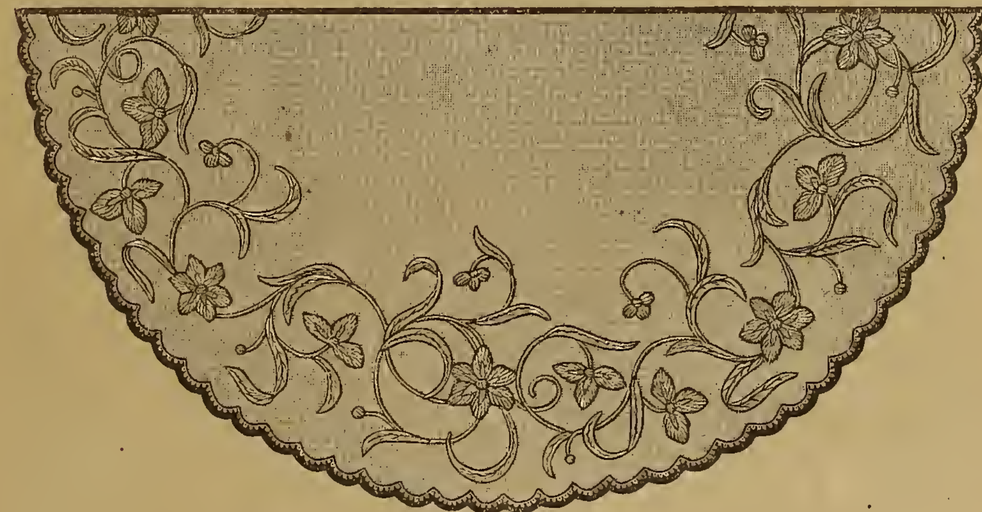

Table-center No. 2

In the first place, the one who aspires to grace and excellence in this accomplishment is warned against a return to the old-fashioned consecutive way of writing a letter. The present hop, skip and jump method, where, when you finish one page, you have to go on a still hunt for the next, adds all the interest of a Chinese puzzle to a letter, and makes what might be a very commonplace epistle bristle with mystery. The fact that many people do not think the game worth the candle, and never take the time to find out just how the different parts of the letter fitted into each other, is no reason for giving up a custom that is distinctly smart and fashionable. If you are a woman, and are writing a business letter, be sure to sign your name "Mrs. Mary Smith" in one place, and "Mrs. John Smith" in another. A busy merchant has nothing to do but to trace down your identity. In writing to solicit employment for yourself be sure to make a long personal explanation, giving a full history of all your troubles. Employers run elemossynary institutions, and always hire a man or woman on account of their needs, instead of with reference to what they can do.

Never date a letter. It adds piquancy to guess where and when it was written. Never hesitate about giving strangers letters of introduction and recommendation to your friends. They may borrow money on the strength of them, and get your friends into uncomfortable positions; but other people will be sure to do you that way, and that's the only way you can get even.

In answering a letter, never answer any of the questions that were asked in it. This would indicate an interest in your correspondent that is highly bourgeois. Always put off answering a letter as long as possible, and then take up three fourths of your reply in explaining that you have been so busy. There is a pleasing novelty about such expression that cannot fail to charm.

When your friends meet with a misfortune, do not trouble to sit down and write them a few lines of sympathy. They will know how you feel without your saying so. Never answer invitations promptly. It shows at once that you are not used to society, and besides your hostess will enjoy the uncertainty of not knowing whether she is to order refreshments for five people or fifty.

When you are angry with a person, write and express your opinion of them before you have time to cool off. You can get a lot of ginger in a letter that way that you would miss if you waited until the next day. If you are a gushing girl, don't hesitate to write sentimental epistles to any young man with whom you happen to get acquainted at a summer resort. He will enjoy reading them. So will the other men he shows them to. It is also highly proper for a girl to write two or three letters to a man's one. It flatters his vanity to think she is chasing him down, and besides shows a commendable spirit on her part not to let a good thing escape.

For the girl who desires to make a fool of herself no other field offers such unlimited opportunities as letter-writing, and her especial attention is called to it. Married men in writing to their absent spouses during the summer should always begin by saying that the world is a desert since their dear——— (fill in the blank) went away, and that they will live only in the hope of her return. That will please her, and besides she is not a clairvoyant, and doesn't know about the little suppers at the lake.

Finally, never hesitate to be indiscreet in letters. You have the best of precedents in politicians and others who wrote incriminating letters and satisfied their prudential scruples by writing "burn this" at the end. Nobody ever does, for those are the letters that are the most valuable and interesting in breach-of-promise cases and criminal prosecutions. By following these few points any person of average intelligence may attain a proficiency in letter-writing that will make them the envy of their less educated friends.—New Orleans Picayune.

CAMPING LIFE AND OUTFITS

What is needed for a pleasant summer in the woods must be very closely considered if one would take comfort in the outing. But first of all—after the question of the camping party has been decided—is the selection of a place. Shall it be the mountains, with shooting and fishing in the mountain brooks, or shall it be the seaside or an island in the sea, with sailing, rowing and deep-sea fishing? Or shall it be mere woods or lake-shore? These are queries which will probably cause heart-burnings and discord before they are settled, and which can be decided only by a canvass of the entire party.

The next question is whether tents or lodges shall be the dwelling in the vast wilderness to which the party proposes to adjourn. Lodges are less romantic, perhaps, but they are a trifle drier in wet weather—and it always rains when camping-days come—and they have other advantages. In most regions where camping is popular the thrifty natives have built lodges, which the crowd that proposes to live close to Nature's heart may hire at reasonable rates. They are frequently equipped with the necessary apparatus for living.

There are islands off the New England coast where the shrewd owners have built camping-lodges that they let for $8 or $10 a week. These consist of one large living-room, which also serves as a dining-room, a "lean-to" kitchen, and a loft provided with partitions and bunks. The kitchen contains a cooking-stove and a very limited set of cooking-utensils, a set of heavy dishes, and pewter spoons and knives and forks. In the living-room there are chairs, a closet and a long table. By ladder-like stairs the campers climb to the sleeping-apartments, which consist of two divisions, each fitted with bunks. These are provided with mattresses filled with fresh straw. Pillows are also furnished, but campers bring the rest of the bedding. Similar lodges are for rent in almost all camping regions. If the campers scorn anything so closely resembling a home, however, tents may be taken and pitched wherever the party pleases. Large tents are the favorites for camping. They may be rented at prices ranging from $1.50 to $6.50 a week, according to size. The same sizes purchased outright cost from $9.50 to $35 or $40. Three tents are necessary for the ordinary party—one for the living-room, and the other two for sleeping-apartments.

Ordinary cooking-utensils are useless in tent-life. There are numerous outfits on the market which are designed for the camper's benefit. They cost about $10, and consist of the necessary cooking-vessels, vegetable-knives, forks, spoons, cups and plates enough for half a dozen persons who do not expect meals served in courses. The cooking-utensils are boilers, frying and baking pans, broiler and toaster, coffee-pot, ladles, cake-turner, basting-spoon, flesh-fork, pot-cleaner, flour-dredge, can-opener and salt and pepper boxes. It is far wiser to buy the set complete than to economize with old dishes, because the outfits designed for campers are made to fit into the smallest possible space, which is an important consideration to tent existence.

The average camping party hires the cooking-utensils, as well as a guide to the mountain retreat nearest the spot chosen for their camping-ground, and the guide is usually very willing to help in the "getting settled," with numerous suggestions in regard to the adjustment of the various utensils. But the experienced camper usually takes along his entire outfit—buying it outright instead of hiring—having it packed and sent by express from the city, or, cheaper still, by freight if it takes up much bulk and the railway-station is not too far from the camping-grounds for convenient cartage.

Even in the most charming and "back-woodsy" of camp-life the woman camper will not lose all thought of care of her complexion. She does not intend to face the suns and heats of camp-life without her beloved creams and salves to fall back upon, and she considers these among the most important of the "extras." Then, even the most timid of the campers does not forget her rifle and her fishing-rod; and even if she does not have much opportunity to practise with the former, the fact that it is included in the extras of her camping paraphernalia will give her a feeling of importance, giving the camp-life an additional charm.

P. W. Humphreys.

FOR TO-DAY

Build a little fence of trust around to-day,
Fill the space with loving work, and therein stay;
Look not through the sheltering bars upon to-morrow,
God will help thee bear what comes of joy or sorrow.

—Mary F. Butts.

[HOUSEHOLD CONCLUDED ON PAGE 17]

A FAIR FIGHT

By Mattie Dyer Britts

CHAPTER IX.

On the ninth day of September Mr. Van Gillen found Harry Ford hanging around near the desk when he came in from dinner.

"Anything to say, Harry?" he asked, beginning to arrange his papers.

"Yes, sir," answered Harry, in a low tone, with a glance at Miss Keely, the little book-keeper.

"Come this way," said Mr. Van Gillen.

Mr. Van Gillen entered his private office, which was separated from the main room by a cedar railing with a fancy wire top. But it would have been easy for any one outside to hear what was said in the office if they had lingered close by. No one ventured to do that, though several of the clerks cast dissatisfied looks in that direction. But it happened that Frank Armstrong was marking a case of fall goods right back of the railing, and he did hear distinctly when Harry, in answer to Mr. Van Gillen's short "Well, sir?" said, "There'll be a sale Saturday, Mr. Van Gillen; summer goods and remnants, going very low."

"All right. That will do."

Harry left the office, and Frank, behind it, dropped his pencil in sheer surprise.

"Well, I've caught on to the old man's scheme now!" thought he. "I wouldn't have believed it if any one had told me. I'll never respect him again as I have done. As for that rascal Ford, I'd like to lick him out of the store! If he ever gives me the least chance I'll do it, too!"

Frank did not dare tell just what he had heard, for fear of losing his own situation; but he did whisper among the rest that Ford was nothing better than a spy on the new folks, and it was soon noticeable how plainly Ford was given the cold shoulder, until his place was not a very pleasant one, to put it mildly.

Thursday night Mr. Van Gillen set his force to work marking down summer goods and light remnants. Not one of them was surprised when, on Friday morning, the bill appeared in Begole's window for the same things, though a number of the employees openly said they were ashamed to carry on business like that.

No bill was put up in Van Gillen's, but there were the windows to speak for themselves, crowded with fleecy and dainty summer wear, with prices marked down to almost nothing. Notices of both sales appeared in the evening papers, and thus Virgie and Miss Maggie learned about it. They knew better than to say a word, but Miss Maggie said to Virgie, "I do wish Jason would stop that sort of work! He'll get a lesson he won't forget if he don't!"

"Oh, Aunt Maggie, you don't think Mr. Begole will do anything to injure papa?"

"No, I don't; but I wouldn't blame him if he did; your pa's done all he could to injure him. No, you wait and see, and mark my words. I believe in providential punishment, I do!"

Virgie did not sleep Friday night, her mind was so full of worried thoughts. The weather, too, was very oppressive, hot and sultry, with a peculiar sigh in the air now and then, which the Nebraska people had learned to fear. It means a storm, if not something very terrible indeed. But Saturday morning dawned clear and bright, as if to cast their fears to the winds, which anybody who has ever been out there knows can carry things a good long distance.

Virgie was obliged to go to the store for some material for a dress she was having made, so she decided to go down very early and avoid both the heat and the Saturday rush. It was not yet eight o'clock when she entered the store. As she did so she chanced to look up and across the street. Mr. Begole stood on the steps of his own store. He lifted his hat, and bowed, and Virgie returned his greeting with a fast-beating heart. At that very instant she heard again that queer sigh in the air. "What is that?" she thought, and glanced at the clouds. They were slightly shadowed, and one little streak of black showed in the west. "I wish it would rain and cool things off," she said; "but it is not very likely."

She went at once to the counter where she would find what she wanted. Her father came over and told her he would like her to stop and see some pretty new things just brought in the day before.

"I don't think I will have time this morning, papa," said Virgie. "I want to get home before it gets too hot, and I have to go to Miss Reed's with my lace. I'll come down Monday, perhaps."

As she spoke there was a sudden darkening of the store, then light again, and the next moment, to the surprise of all, Mr. Begole came hastily into the store and walked straight up to Mr. Van Gillen. Virgie and every clerk within sight caught a sudden breath. Was there going to be trouble?

Mr. Van Gillen drew himself up very stiffly, as if ready to meet anything.

"Mr. Van Gillen," spoke Mr. Begole, in quick tones, "pardon me, but I came to tell you that you had better send your daughter home as speedily as possible. There is a sand-storm approaching. There is a cab at the corner. Shall I send it to you?"

"A sand-storm! Oh, mercy!"

The clerks began to flock toward the door, and at that very moment a puff of wind shrieked through the building with terrific force, throwing down the goods near the door, while they all heard the peculiar whistle which tells the people of that region what is coming.

"I thank you; but I'm afraid it is too late already," said Mr. Van Gillen. "Will you try it, Virgie?"

"Oh, yes, papa; quick!" she answered. "I couldn't bear to stay here all day! Be quick, please, Mr. Begole; call the cab!"

But the young man was already out, and the cab at the door.

"He can get her home if he will drive fast," said Mr. Begole, putting Virgie into the cab with as much coolness as if he was used to doing it every day, while her father stood absolutely speechless with astonishment, and the clerks were doing their best not to smile at that daring fellow. "Quick, now, man," Begole added to the driver; "get the lady in before the storm comes!"

"Aye, aye, sir!" The man touched his cap, the cab rattled away at a furious speed. Herbert bowed to Mr. Van Gillen, and was on his own side of the street directly, giving orders to close the store before the storm struck them.

"Well, the cheek of that man!" the clerks heard their chief mutter; then he was himself again, issuing his own orders in firm, short tones, "Close the doors! Quick, boys! Shut up every crack, and throw the covers over the goods! There will be no trade while this lasts! We can thank the Lord if we get off with our necks!"

While they were busy he hastened to the telephone, sent some orders to his grocer, then called his home, and asked if Virgie was there safe. Back came the reply in her own voice, "Yes, papa, all safe!"

It was remarkable that about the same minute the telephone rang again, and when Virgie answered, the question came, "Is that you, Miss Virgie?"

"Yes, it is I. Who is this?"

"Herbert Begole. You are at home all right?"

"All right, thank you!" Aunt Maggie was not in the room, so Virgie added, "Oh, please take care of yourself to-day!"

"Yes, I will; and you, too!"

"Seems to me you are always taking care of me."

"That's what I mean to do. All right!"

"Good-by!"

She rang the bell, and sat down in a chair and laughed softly, her eyes sparkling, her cheeks glowing.

"Such a fellow! I never saw his match! To walk right in on papa like that; wasn't it rich? Oh, I hope they won't have an awful time to-day!"

There were no lives lost in the sand-storm, but it was one long remembered in the region about Ashland. The wind was almost a hurricane in velocity, and it carried on its stinging wings so heavy a shower of sharp, hot sand that the sky was darkened for several hours, gardens and fields buried almost out of sight, and everything in its way covered with a blanket of sand. No business could be done. No human being or even horses were out, unless forcibly obliged to be so, and these sought shelter as speedily as might be. The clerks in the stores sat around on stools and boxes, and they did not wait on customers that day, for none came in. Mr. Van Gillen did not attempt to go home to dinner, but sent them word by the telephone, so they were not alarmed. Until nearly four o'clock that afternoon the storm raged, not so furiously as at first, but making it very unpleasant, if not dangerous, to be outdoors. The temperature fell to a very low degree, and in the evening there came, as a finish, a terrific hail-storm to complete the ruin the sand had begun.

"VIRGIE SAW HIM EMERGE FROM THE FRONT DOOR, HIS ARMS FULL OF THE HEAVY BOOKS"

When Mr. Van Gillen came to supper, tired out with the worry and disappointment of the day, Virgie was too wise to say a word, but Miss Maggie gave him her opinion very promptly.

"Now, Jason, you see how it is—you did not gain one thing by trying to beat down that young man to-day. I hope it will be a lesson to you, for as sure as it isn't, something awful will come upon you, just in retribution."

"Nonsense, Mag; you talk just like a woman!" was his reply, with a frown.

"Oh, well, I don't care what you say; I'm right, and if you don't mend your ways, Jason Van Gillen, you will live to see that I am."

"It seems to me your rule don't work well," he rejoined, sarcastically; "if I didn't make anything to-day, neither did that other fellow; his sale was stopped as well as mine, so your philosophy won't hold good."

"Yes, it will. The innocent always suffer with the guilty." Then, as if fearing she had gone a trifle too far, Miss Maggie adroitly turned the conversation to the tempting supper she had prepared for him, and his good-nature was measurably restored.

CHAPTER X.

It was impossible to continue the sales over until Monday, for in spite of all care the fine, sharp sand sifted through cracks and crannies upon the goods displayed in the windows, and it became necessary to take everything out and shake and cleanse it thoroughly. Mr. Van Gillen was very much out of humor for several days, and Aunt Maggie and Virgie were rather relieved when he told them, about the middle of the next week, that he was going away on business.

"I've only got to run over to Lincoln about that land affair," he said, alluding, as they knew, to a piece of property with which he had some trouble, which lay just outside the city of Lincoln; "but it will likely take me two or three days, maybe longer. I'm going to do something with it this time, if I have to give it away."

"A few days' rest won't hurt you, papa," said Virgie. "I am glad you are going."

"All right, daughter; thank you. If anything requires me before I am ready to come, send me word."

"Of course, papa; we will."

But not one of them dreamed of the events which would make Mr. Van Gillen's presence at home imperative in less than twenty-four hours. It came into Virgie's head that evening to drop Mr. Begole the slight hint which she knew would be sufficient, and allow him to call on her. But the next moment she banished the thought.

"No, I cannot do it when papa is at home; I won't do it while he is gone. Herbert would tell me to wait until he can call with the same liberty that any other gentleman would have. But I do wish I could see him to-night. I feel so lonely and somehow as if something was going to happen. I don't know what has come over me, but I want to see him more than I ever did before. Dear me! what makes a girl so silly when she likes a fellow, I wonder?"

Which was a very plain admission on Miss Virgie's part, though she would not have made it if any one had been there to hear her. Neither did she fancy that her desire to see Herbert would be a little more than gratified before they slept that night.

She sat out on the veranda awhile, then went into the parlor, where Aunt Maggie was reading, sat down to the piano and played for an hour or more. Then she got up from the stool, drew a sleepy sigh, and said, "Aunt Maggie, it isn't ten yet, but I believe I am sleepy, and if you won't mind I'll go to bed."

Aunt Maggie glanced up from her novel. "Certainly I don't mind, child; go if you like. I'll come up as soon as I finish my book. Are you afraid while your pa is gone, Virgie?"

"Oh, no; not at all. There are three of us, you know—yourself, Jane and I—to say nothing of old Ponto. Oh, no; I'm not afraid. Are you?"

"Not a mite. I only thought you might be, and if you were, we could have Joe sleep in the house instead of over at the barn."

"And let some one steal papa's horse while Joe was off duty? Oh, no, Aunt Mag; we're all right. There! Hark! Wasn't that the fire-bell?"

"I didn't hear anything, child."

But they both listened, and again the sound came—ding, ding! dong, dong, dong!—and Miss Maggie sprang to her feet.

"Twenty-three, Virgie! It must be near the store! That's the box right on their corner!"

"Oh, my goodness!" cried Virgie, and they both flew out to the veranda. Oh, horror! a dull red light, every instant growing broader and brighter, loomed up in the sky in the direction of her father's store. People were already running in crowds through the street, and they heard one boy yell to another, "Come on, fellers! I'll bet it's old Van's store!"

"Get a shawl, Aunt Mag, and let us run, too!" said Virgie, excitedly.

"Oh, my gracious, child, I am that scared I don't believe I can walk a square!" panted Miss Maggie, trembling from head to foot. "Jason gone, and the store on fire! What in the world shall we do?"

"We are not sure it is the store yet! Those boys may have been mistaken, but we'll go and see!"

Virgie flew into the hall, snatched a couple of light wraps from the rack, threw one around Aunt Maggie's shoulders and put the other on herself; then they ran hurriedly out, and pressed through the ever-increasing throng to the business square.

Yes, it was only too true! The building was on fire, all the back part of it blazing furiously, while there was little chance that the firemen, already bravely at work, could save even any of the stock.

Aunt Maggie began to wring her hands and cry, and Virgie felt her own strength giving way with fright.

"Oh, if papa was only here, and could just save his books, if nothing more!" she wailed, as Aunt Maggie clung to her, weeping and almost falling in spite of Virgie's efforts to hold her up. "Can nobody do anything? Oh, what an awful—"

But she stopped suddenly, for a clear, strong young voice rang out on the night air, above the hoarse cries of the firemen and the rattle of the engines, "Break the door down if you can't get the key! Here, all of you! Will you let a man's property burn, and not try to save it? Stand out of the way there! Now, boys! Steady! S-t-e-a-d-y!"

"By George, it's that young fellow Begole!" cried a man near by (though Virgie knew who it was the first word). "He is going to break the door in, and try to save the old man's books, as sure as I live! Lord, but he's a bold one, to go into that blazing hell!"

Virgie threw one arm about Aunt Maggie, and stood still, absolutely holding her breath for what came next.

"Open my store and carry everything you can get over there!" rung out the clear tones. "Come on, lads! Come on! I'll go first of all!"

He dashed into the building, followed by ten or a dozen brave young men who were stimulated by his example to do their utmost, amid the cheers of the crowd outside and the yells of the firemen. A minute of deathly suspense, then the group inside were seen rolling something toward the broken-in door.

"It's the safe! By Harry, they have got the safe! Here, fellows, let's help!" was the cry from the street, and willing hands lent their aid, while the heavy safe was rolled out of the doomed building, wheeled over the street, and pushed into Mr. Begole's store, over the front of which one engine kept a stream of water playing, in order that it might not catch from the falling debris and sparks.

"Now come, boys, save what you can!" cried Begole. "I'm going back after the books! Miss Van Gillen, you here? Oh, don't stay! Go home, and let us do this work! Do go!"

"No, no!" cried Virgie, dropping her hold of Aunt Maggie and stretching out her hands to him pleadingly. "I will not go! Oh, please, please don't go back there! You risk your life! The books—they must be in the safe!"

"No. Here's the book-keeper; she says three or four were not put in to-night. I must get them, dear girl! Let me go!"

"No, no! Do not risk your life! Oh, do not go! See! the fire has reached the front now! Oh, let everything burn, but save yourself!"

"In one moment!" He pressed her hands, dropped them, and ran back into the blazing building, while the vast crowd stood breathless with fear and suspense.

"He will be terribly burned, if he gets out alive," said a bystander. Virgie heard the words. She gave one shriek, and was almost in a swoon, when she saw him emerge from the front door and stagger across the street, his arms full of the heavy books.

"Virgie! Virgie! Come back! Don't leave me!" was Aunt Maggie's cry, as the girl darted from her; but Virgie paid no heed to her now. She flew over the way, through the surging throng, and into the open door, where Mr. Begole was just trying to give the books to one of his own men. As he reeled back she caught him with her soft young arms, and supported him in his fall against a pile of woolen goods.

"No, no; let me alone!" she cried to those who pressed forward to the help of both of them. "He did it for us; don't keep me away from him! Oh, Herbert, Herbert, you are hurt, you are burned, and it was all for us!" And right there, in sight of the curious lookers-on, she bent suddenly down and kissed him on the cheek.

"My dear girl, it is nothing!" he tried to say; but his exertions had been too much even for his young strength on that hot night, and for a moment he fell back quite unconscious.

"Call a cab, and take him straight to our house!" ordered Virgie. "Find Aunt Maggie, and send a telegram to my father, quick!"

"Yes'm, Miss Van Gillen! Where shall we send the word?" asked one of the clerks. Virgie gave the address of her father's hotel in Lincoln as he had given it to them. "What time is it?" she asked.

"Half-past ten, miss."

"Then if he gets the message at once he can come home on the twelve-thirty train. Oh, I hope he'll get it! Ask for an answer, please, and send it to our house for collection. Oh, do hurry with that cab! Do hurry!"

"Cab's coming, miss."

"Is the fire going down?"

"Seems to be under control. Yes, I think they will save the front of the building, but the stock is gone for good."

"No matter, since no one is hurt. My father has insurance. Is the cab here?"

"Yes, miss, here it is."

Virgie knew that she had committed herself by her action, and that the people of Ashland would not be slow to guess how it stood between Mr. Begole and herself; but she did not care now. Her blood was up. He had done enough for her and hers, and come what would, she meant to stand by him.

"Herbert! Herbert!" she said, bending over him, "do you know me? Can you speak to me?"

"Yes; I'm all right now," he answered, lifting his head from its rest on her soft shoulder. "Don't worry, dear girl!"

"I won't. But you must come home with me, and we will doctor you up. Here is Aunt Mag. We are all ready. No, no!" as he would have resisted her light touch, "it is my turn to-night! I will be obeyed. Come! Oh, Aunt Mag, do send for Dr. Mitchell! Tell him to come to the house as quick as he can!"

"Yes, I will," said Aunt Maggie, understanding everything. "Go on, Virgie; I'll come with the doctor. Go on, please!"

"You had better ride with us!"

"No, go on; don't keep him waiting. I won't be two minutes behind you."

Virgie fairly drew Mr. Begole with her to the cab, and they were seated in it, driving rapidly homeward in another moment.

The girl's courage gave way when she found herself alone with him, and she burst into tears and sobbed pitifully. He put his arms about her, saying, tenderly, "Don't, sweet; don't give way when you have been so brave! We are both safe now, you know!"

"Yes, thank heaven! Herbert, if you had been killed in there I could not have lived over it!" And she fairly dropped on his bosom, while he said, in deep, tremulous tones, "Do you care so much, darling? Then we will not be parted again!"

"No, no, we will not! I shall tell papa everything as soon as he comes. You can't stop me now, Herbert; you must not, for my own sake, if not for yours! I could not be to you as I have been, and I will tell now!"

"Well, my darling, I don't know but it will be best, after what has happened."

"Yes, we must, you see. Why, I kissed you right there before the crowd, and I don't care one bit, either! But there, I may hurt your poor, burned hands. Oh, forgive me! Won't we fix you up good, though, when we get you home?"

"Virgie, what will your father say to find me in his house?"

"Only you wait and see, sir; that's all. Jason Van Gillen has his faults, but ingratitude is not one of them. You wait and see! Oh, Herbert, you have won at last! You have made him your friend this night, and when I tell him all he will be heart-broken over the way he has treated you."

Mr. Van Gillen was in his room at the hotel when the dispatch came, so no time was lost, and he arrived in Ashland at half-past two o'clock that night. He was driven first to his store, to look at the ruins, and there heard something of the story, and was a little prepared for what was to meet him at home.

Miss Maggie and the doctor had dressed Herbert's hand, for only one was badly burned, and he was able to use the other a little. He held it out to Mr. Van Gillen when Virgie, who had run to the door to meet him and tell him the wonderful news, came in with him.

"Mr. Van Gillen, it isn't my fault that you find me here. But I trust we can be friends now, sir?"

"Friends!" Mr. Van Gillen put aside the hand, fearful of hurting it, and taking both the young man's arms, he bent his proud head almost to the strong young shoulders, and answered, in trembling tones, "I am not worthy to be called friend by you, Mr. Begole! Can you ever forgive me for the wrong I have done you?"

"That's it, papa! 'Fess up like a man while you are about it!" cried Virgie, with dancing eyes.

Begole lightly shook his head at her, and said, in a manly way, "There is nothing to forgive, Mr. Van Gillen. I could not do less than I tried to do to-night, but I shall be proud to know that you no longer hate me."

"Papa, what he did down there is not all you owe him!" put in Virgie. "No, keep still, Herbert; I will tell every word now! Papa, it was this young man who saved me on the wreck of the steamer! It was, Aunt Maggie, and I knew him all the time!"

Mr. Van Gillen actually turned deathly pale and made a gesture of distress.

"Virgie, daughter! You knew, and you did not tell me?"

"Papa, the silly fellow would not let me. He made me promise solemnly not to, because he would not take any advantage over you. Come, I'll tell you just how it was."

She went down on her knees beside her father's chair, and while he leaned his head on his hand and kept his face concealed, she told the little story, and ended up with, "Now you see, papa, what a brave, noble, dear fellow he is; and you must love him all your life, and give him anything he wants!"

Mr. Van Gillen laid his hand on Herbert's shoulder, and could but just make out to say, "Begole, the loss by the fire is nothing to me beside the humiliation I feel in your presence this night! I can never make amends for the way I have treated you!"

"Don't speak like that, please!" urged Herbert. "It is all forgotten, if there was anything to forget! If you wish to do anything for my happiness, give me this!"

He took up Virgie's little hand, and she let it nestle in his clasp, while she looked up, and said, saucily, "You may as well, papa, for I kissed him right down there in the crowd to-night!"

A few minutes later, while Miss Maggie was preparing the rooms, that they might rest the short time left until morning, Herbert and Virgie were for a brief space alone. Then he drew something from his pocket with his well hand, and said, "My darling, give me that little hand again." She placed it in his, and he slipped a small ring over her finger, saying, with a smile, "I don't believe I ever heard of a girl getting engaged with her own ring outside a comic paper; but put it back to-night, sweet, and I'll get you a new one to-morrow. It has brought you to me, and will always be the most precious bit of gold in the world to me!"

"To me, too!" answered Virgie. "I am glad to get the dear little thing back, but I was sure it was safe with you, Herbert. Won't they all be surprised to learn that it was never lost in the river?"

"They," meaning Aunt Maggie, Mr. Van Gillen, Sue and Mrs. Pearson (who were written to at once), certainly were surprised; but Joanna, when she heard the wonderful news, refused to be surprised at all.

"I just knowed, the first day I ever saw that man, that he was just the very one for Virgie," she declared. "It's the best match in the world, and don't you forget that I'm to come up and help with the wedding fixings."

Joanna did come to help, and Sue and Mrs. Pearson were there as guests. Strange to say, as soon as the fire insurance was adjusted, Mr. Van Gillen did not go back into his old place. He took what goods were uninjured over the street, and two or three months before the wedding a new sign was over that door, bearing in blue and gold letters the words "Begole & Van Gillen," and the trade which went to that store was enormous.

Virgie and Herbert received many choice wedding gifts, but the greatest one of them all was from Mrs. Pearson, a check for ten thousand dollars to each of "her children," as she loved to call them. She further said that having no near kin to whom to leave her wealth, she would make a few bequests, leave a portion to charity, and Virgie would be her heiress to the remainder, which amounted to a very snug fortune.

THE END

MIDSUMMER

I watch the mowers as they go;
Through the tall grass, a white-sleeved row;
With even stroke their scythes they swing,
In tune their merry whetstones ring.
Behind, the nimble youngsters run
And toss the thick swaths in the sun.
The cattle graze, while, warm and still,
Slopes the broad pasture, basks the hill,
And bright, where summer breezes break,
The green wheat crinkles like a lake.
The butterfly and bumblebee
Come to the pleasant woods with me;
Quickly before me runs the quail,
Her chickens skulk behind the rail;
High up the lone wood-pigeon sits,
And the woodpecker pecks and flits;
Sweet woodland music sinks and swells,
The brooklet rings its tinkling bells,
The swarming insects drone and hum,
The partridge beats his throbbing drum.
The squirrel leaps among the boughs,
And chatters in his leafy house,
The oriole flashes by, and, look!
Into the mirror of the brook,
Where the vain bluebird trims his coat,
Two tiny feathers fall and float.

—John T. Trowbridge.

A CASE OF LONG STANDING

BY HELEN HICKS

A puff of wind caught up the chaff under Jake Horton's feet and whirled it giddily across the barn floor. The north doors stood open, and as he raised his eyes he saw advancing down the gravel road a procession of dead leaves in a fierce volume of eddying dust. Above the crest of Little Pelior great battalions of ink-black clouds were shouldering themselves forward, and there was a low but distinct sound of thunder in the freshened air.

"Goin' to be a blow," he commented, mentally, as he thrust his arms into his blue-drill overshirt, fastened the barn doors and swung down the path toward the house.

Half way down the hill, in the middle of the path, stood the small, erect figure of a child. The little fellow was balancing himself carefully on a pair of stout, sunburned legs; his fists were planted on his hips, and a look of large, pleased observance sat on the dirty face.

"Hello!" cried Jake, his jaw dropping, "who be you?"

The young stranger's only reply was to meet his interlocutor's regard steadily, and to expand his countenance into a broad grin wherein several snaggly little teeth played a conspicuous part.

Jake knew all the children within a mile of his place, but this was not one of them. The big man stood looking down at the little man in solemn perplexity. He was not quick at coming to conclusions, and there was a look of hopeless dismay on his great face, with its straggling mustache and black, heavily marked brows. "Who be you, sonny?" he asked again.

The youngster only opened his eyes wider and rubbed one bare foot meditatively over the other. Jake lifted up his own eyes to the hills, as if in search of information there, and saw a sight that startled him. The clouds were rapidly massing together overhead; the air was murky and thick with dust, and on a sudden he saw the summits of the maples in the sugar-bush lashed into fury and the corn on the slope bowed to the earth. Catching the small man up on his shoulder he made a dash for the house.

It was only a short run down hill and on a well-worn path, and they had reached the porch with the young estray's sticky hands clasped about Jake's neck just as the first crack of thunder burst overhead and the first heavy raindrops rushed against the earth. It was not too soon. The storm broke furiously. Peal after peal of thunder shook the house; an elm in the front yard snapped midway and lurched awkwardly forward before the violence of the wind, and in the garden, through the slanting lines of rain and the cloud mists which seemed to sweep along the ground, Jake could see all his stout vegetables harried and ragged and beaten flat.

"I want to go home! I want to go home!" wailed his guest, suddenly finding his small voice, between two claps of thunder.

Jake sprang to his feet. "Now, see here, sonny. You hold on till we git a fire and scratch up suthin' to eat," he said, appealingly, while he dashed off the lids of the cooking-stove and forced in paper and kindling-wood in wild haste.

The fire sprang up merrily. He filled a kettle with water and set it over the blaze. "Don't you cry, now, old man," he said, as he worked. "Just you wait an' git your supper, an' then we'll see what we kin do fur you. We'll git you home to your maw, sure enough."

The young adventurer's lower lip was protruded alarmingly, and two tears stood on his round, flushed cheeks; but at the mention of supper he raised his head with attention.

"An' what 'u'd be good fur you, now, I wonder," Jake went on, as he spread the board, looking dubiously at the full-grown fork and wicked knife he was obliged to place for his charge. "A cup o' tea? Naw! Tea ain't fur leetle folks like us, is it? A soft-b'iled egg an' a bowl o' sweet milk with bread crumbled into it, I guess, 'u'd be more like the thing. An' now, sir, you just stand around an' watch me like a man till I git it ready; an' then you an' me'll set down together. Here's the bread, an' here's the milk, an' here's this here little blue bowl what I used to drink out of when I was a leetle feller myself!"

The "leetle feller" followed his host's tall figure to and fro with tireless persistency, submitted to having his face washed without blinking, and finally, on a chair heightened with old coats and pillows, sat solemnly at meat, his mouth besmeared with yellow egg.

When the meal was over Jake drew his chair before the blazing fire and lifted the child up on his knee. He pressed the tousled head against his breast with his huge brown hand, and after a moment's wary scrutiny the little one lay back contentedly, regarding the fire and his own small feet as they stuck straight out before him. Presently his breathing grew measured, heavier—he was asleep.

Jake Horton sat on in a strained, unnatural position. The rain fell monotonously on the shingles, the eave-troughs discharged their contents with a hoarse gurgle, and the fire after blazing out its enthusiasm subsided into a gray and dismal ash.

"I wonder if I could just git out my pipe an' tobacco without wakin' him," Jake thought, guardingly putting his hand back in the direction of his hip-pocket.

A restless turn of the sleeper's head and a sigh longer drawn than usual restrained him. Then with a sudden access of courage, which made him tremble as he responded to it, Jake rose and laid the little fellow tenderly in a corner of the old haircloth sofa. "There, now, old man, you'll feel easier like," he whispered, as he covered the plump limbs with his coat.

He straightened himself and went to throw open the door. The rain was over, and a broad band of orange light lay along the western sky. The air was full of the smell of soaking earth, and from every direction came a gentle sound of dripping, as from thousands of tiny leaves. He leaned against the door-post and lit his pipe. He had no hopeful thoughts with which to face the evening hour; neither had the past given him content, nor did the future hold any cheerful prospect. He saw himself a middle-aged man, alone and growing older. The small head against his breast had left a miserable loneliness and dissatisfaction there. Away across the river and half way up the slope of the opposite hill he could see a spot of white, which he knew was Liz Garrett's house. He never saw her now; no, he had never set eyes on her since the day, five years ago, when she married Tom Garrett and went to live on the hill. Yes, it was five years now. He had taken care not to meet her, but he knew perfectly what her life had been. He knew she had chosen badly, that she had a drunken husband who neglected his wife and wasted his substance. Yet after Tom Garrett died he had never thought of putting forward his own suit again. Once he had spoken, and Liz had answered. It had never entered his simple, honest heart to conceive that there could ever after be any but the one answer possible to give. She was living on alone with her child in that little house on the hill, and there was all the distance of years and separate experience between them.

Yet he knew himself to be unchanged. He was not one to change lightly. All his mother's little belongings still stood in their accustomed places—her chair by the window, her work-basket, with the interrupted patchwork neatly folded, as she had left it, though she had been dead three years. He had never openly bemoaned the loss of her, but he missed her every day. And it was so with his remembrance of Liz—it was hopeless, but it was there, and he would not pluck it out.

The images which passed before his mind's eye were so vivid that for an instant he was not sure that the woman's figure hurrying up the wet path toward him did not belong to them. A certain impetuous grace of movement, some half-recognized outline of form,

as she advanced against the sunset light, seemed to mark her as something dear and familiar. Then he saw that it was Liz. She was hurrying now; she was running, bareheaded, with her lips parted for breath and her face flushed with crying. Jake started forward, then paused, motionless, expectant.

She reached out her hands toward him. "Hev you seen my boy, Jake; my baby! They told me he come this way. I ben huntin' for him—all through the storm!"

He stepped back, and Liz's quick eye detected the little recumbent figure on the sofa. She sprang forward and gathered the child up in her arms, burying her face in the short curls. Then she raised her eyes to Jake. He laid his hand on her wet shoulder.

"Is he yours, Liz?" he said. "I might 'a' knowed he was yours—I loved him so!"

PORTO RICO MANUFACTURES

General Davis says in one of his reports: "Industry in Porto Rico has not reached the degree of development enjoyed by other countries, owing not only to the lack of active private enterprise, but to the absence of the requisite protection on the part of former Spanish governments." He adds to this an emphatic assertion that, bad as conditions have been, "the future is full of promise."

Porto Rico is essentially a mountainous country, which has been likened to "a soldier's campaign-hat, the crown being the uplifted center and the rim the coast plains." While this is in a general way true, the steeply sloping sides of the central height are deeply corrugated by the innumerable small streams, which, in their swift seaward course, cut deep ravines in the red clay soil.

There is a wide difference of opinion as to the practicability of utilizing for mechanical purposes the water of these streams. Lieutenant Eames expresses a decided opinion that in the Ponce district there is no available water-power, principally because of the variable amount of water in the streams. He says: "At times this water rushes with such a sudden and violent force and in such an increased volume that no machinery could stand against it, and masonry provision against this increase would cost so much as to make it prohibitive." To give additional force to his assertion, the officer in question cites the case of the Rio Portuguese, which, when "up," swept a two-hundred-foot steel wagon-bridge from its abutments and deposited it some two hundred feet down stream, although the bed of the bridge was twenty feet from the mean height of water, and was strongly anchored to the masonry abutments. This wrecked bridge, which may be seen by any visitor to La Playa, bears mute testimony to the great force of the rapid island rivers. But another officer, Lieutenant Blunt, puts a different phase upon the matter. He says of the rivers Loiza, Bayamon, Plata and Negro, in the San Juan district: "All have plenty of fall, and with dams plenty of water to afford great power," adding the assertion that freshets would make strong and expensive dams necessary, but concludes with: "The absence of coal renders this form of power so necessary that the increased expense would be a small consideration." Major Thomas evidently was of the same opinion, his testimony being: "The water-power is most excellent all over the island. By a system of dams and reservoirs, easily constructed, the water could be utilized in a dozen different ways—for sugar-mills, coffee-mills, electric-lights, electric roads, all kinds of manufacturing." As yet this latent power has not been applied to mechanical uses to any extent. The officer in charge of Aguadilla district, one third of which is wooded, says: "I have not seen a lumber or saw mill of any kind in the district, and lumber is manufactured by hand."

That being the case, it is a foregone conclusion that comparatively little is done with the rare and valuable cabinet-woods which we were long ago taught abounded in the West Indies.

Although the island is so densely populated, and so large a proportion is under cultivation, that I found the forest area much smaller than I had supposed, there are still many fine specimens of mahogany, ebony, lignum-vitae, cedar, ausubo and tachuelo, the two latter being considered valuable; but until hand-work has been succeeded by power in some form tachuelo will be little used. It is heavier than ebony, has something the appearance of mahogany, but is stronger, harder and most difficult to work, it being next to impossible to drive a nail into it.

At Cabo Robo, in the southwestern corner of the island, all the native woods can be seen at a small manufactory, where, by slow hand process, they are converted into walking-sticks. While there are other factories, this is the center of the walking-cane industry. Already the place is well known to tourists, few of whom think of leaving Porto Rico without an assortment of these sticks, which can be found in laurel, cocoanut, maguey, ausubo, capa, orange, mahogany and many other varieties, some extremely hard and brittle, others soft and easily worked. It is considered that the handling of native woods for building purposes would not be profitable, and a great proportion of the timber used is imported from Norway at more than twice the price the same wood would bring in the United States. Examination of the few houses in which native woods were used show that, to all appearances, they are as solid as when built, a half century ago.

It is predicted that hat-making, in which the women excel, will shortly assume, commercially, a more important place than ever before. Already the fine quality and durability of Porto Rican straws have attracted the attention of prominent dealers in the United States.

Another source of income has been the exportation of hides, more than seventy thousand pesos' worth having been marketed in continental Europe and Cuba in the year 1897.

For bricks, flagging and tile-making there is found plenty of material, and, although the fittings are crude and the machinery in use very primitive, almost every town of any size has its brick-kiln. The bricks manufactured are longer, wider and thinner than those in use in the United States. Usually rather friable and sandy, the quality doubtless could be improved by more careful selection, manipulation and firing. These bricks are used for sidewalks and for houses, but in the latter case are nearly always superficially stuccoed.

The only potteries seen upon the island confine their productions to rough red jars and water-coolers, although there is little doubt but that the quality of the output could be immensely improved by more careful manipulation.

Several small factories, lately established, extract oil from the cocoanut and starch from the yucca. The cocoanut industry—yet in its infancy—is capable of a great increase. In addition to the demand for oil and copra (the dried nut), it is said that so much desiccated cocoanut is used by confectioners in the United States that the supply is quite unequal to the demand. There are a few places where chocolates are manufactured, and matches are produced in limited quantities. Mayaguez is credited with two foundries; the Standard Oil Company has, at Bayamon, a small refinery; a few ice-plants are in operation at San Juan, Ponce, Mayaguez and Guayama; San Juan boasts an establishment where a cheap variety of traveling-cases are manufactured, and most of the towns have shoemakers, silversmiths, broom-makers and tailors.

The industries connected with coffee and tobacco have been noted in a previous letter. Aside from these and sugar-making it will be seen that there is almost nothing to which one ought to apply the term manufactures; that in general all attention is confined to the few industries which supply the simplest domestic needs.—Boston Transcript.

A CURIOUS EXPERIMENT

"A curious experiment which any one can perform at the cost of a few cents is herewith explained," says the "Scientific American." "Buy one ounce of liquid sodium amalgam, a sheet of aluminum costing a few cents, and about six inches of stout copper wire. With a file sharpen one end of the copper wire, so as to give it the shape of a pencil. Rub off the surface of the aluminum plate with a knife just before beginning the experiment. Dip the pointed end of the wire into the amalgam, and after removing it, covering with the liquid alloy, write or draw on the aluminum plate. Dip your wire into the amalgam from time to time, just as if you were writing with pen and ink. Never mind the fact that your ink is a metal and that your pen seems to write nothing but scratches; finish your work and then watch to see what happens.

"The lines just traced by your pen will suddenly assume a dull whitish tint, contrasting with the brightness of the metal. Then they will rise above the metallic surface at the rate of about one inch an hour. In less than five minutes your drawing will be in strong relief. You may wipe out the white substance which has thus sprung from the same metal; it will develop again with the same vigor as would some kind of mushroom gifted with the rather abnormal property of thriving on metallic ground.

"These white formations consist principally of alumina. The cause of their growth is the formation of an amalgam of aluminum, in which that metal is in a molecular state altogether different from that in which it exists in its coherent form. Although mercury has less affinity for oxygen than aluminum, as soon as an alloy of the two metals is made aluminum loses its previous chemical inertia, and undergoes a slow combustion, the product of which is alumina. Sodium plays no direct part in the reaction, yet without it I found it difficult to get the mercury to adhere to the aluminum. Sodium facilitates also the adhesion of mercury to the copper wire. The best results are obtained in damp weather. If the air is dry at the moment of the experiment, results just as good will be obtained by breathing gently from time to time on the drawing, so as to slightly moisten the amalgam of aluminum."

An article in "Scientific Siftings" makes out that women as a rule are more beautiful between the ages of thirty and fifty years than during any other period of their lives. If this be true, why should a woman of forty be reluctant to admit that she has passed her twenty-fifth birthday anniversary.

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OUR SUNDAY AFTERNOON

TO PRIZE LIFE'S HARDNESS

BY JAMES H. WEST

To prize life's hardness—find delight in ways
That scale the hill-crest and the loftier air;
To rouse some bird-song in the desolate days,
When winter holds the forest frozen and bare;
To wear the cypress as though laurel-wreathed;
To lure a smile from brows that darkly frown;
To say to traits of evil, age-bequeathed,
"Ye may be blotted out!"—and fight them down;
To take what Heaven or Circumstance has sent
And bend it to the making of a man!—
This is the aim whereto my days are bent,
My fond endeavor, waking vision, plan.
O life! O earth! I prize ye for your smart,
And for your rudeness I am glad at heart.
—Selected.

HOW TO REACH EIGHTY

BY WILLIAM MATHEWS, LL.D.

IS LONG life a blessing? The Bible assumes that it is. As a man is occupied till twenty in getting ready to live, he who dies at fifty instead of at eighty has had but half a life. He leaves the world when he should be at the meridian of his power—freest from care, freest from illusions and fullest of experience.

But what is the secret of longevity? We answer: The surest guarantee is a genius for it—a bodily and mental predisposition to a long life. There are persons who are "prefigured unto a long duration." Those who have this gift, which is inherited from long-lived ancestors, will generally reach old age, even though they trample on the laws of health, because, although they draw more largely on their vitality than careful livers, they begin life with a vast capital.

For the man of ordinary stamina the chief conditions, that are not involuntary, of long life are constant occupation in an honorable calling, regular hours, bodily exercise, plenty of sleep, a temperate gratification of all the natural appetites, a sunny disposition and a clear conscience. The deadliest foes to longevity are excitement, hurry and worry. The law is universal, that intensity and duration of action are inversely proportional, and it holds as rigorously true of the human machine as of any other. Every man is born with a certain stock of vitality, which may be husbanded or squandered, as he deems best. Within certain limits he may live slow or fast—extensively or intensively. He may spread his little stock of life over a large surface, or condense it into a narrow one; but when his stock is exhausted he can count on no more. He who lives extensively, who avoids all unhealthy stimulants, takes light and agreeable exercise, avoids overtasking himself, has no exhausting passions or debilitating pleasures, abstains from worry, and "keeps his accounts with God and man squared up daily," is sure, if he has an average natural constitution, to spin out his life, barring accidents, to a long limit. On the other hand, he who lives intensely, who feeds on highly seasoned food, material and mental, subjects his body or brain to excessive labor, lives in continual excitement, keeps late hours, frets and fumes at every trouble, is burning the candle at both ends, and will almost inevitably be short-lived.

Strictly speaking, it is not overwork—that is, in the aggregate—that kills; it is too much work done in too little time that causes so many breakdowns to-day. Mental and bodily labor within reasonable limits tends rather to prolong life than to cut short or fray its thread. Even overwork of the brain may do less injury than underwork. It is the pace that kills—straining the strength, and worrying the will—to catch up with work long neglected, or with a train. It should be deeply impressed on the mind that all such acts as running up-stairs, or to catch up with an electric-car or ferry-boat, are extremely injurious to every age, sex and condition in life. It ought to be only the most pressing necessity that impels a person over fifty years old to run more than twelve or fifteen yards.

Far deadlier in its effects on health and life than excessive work is worry, which is sapping the vitality of so many strong men to-day. Nothing did more to prolong the life of Gladstone amid his herculean toils than his ability, when he entered his study or bedroom, to leave politics and business cares outside. Worry springs mainly from nervous exhaustion. As one grows old, cares which sat lightly on the spirit in youth become an intolerable burden. The best antidote to this is an abundance of sleep, which knits up the unraveled sleeve of care and reinvigorates the wasted nerves. Men whose callings subject them to a heavy nervous strain ought occasionally to spend a day or two in bed. Even an afternoon nap is a tonic, and may do much to lessen the wear and tear of nervous, anxious days. One of the ablest statesmen of modern times, when once reproached in early life for indolence, retorted, "I am storing energy."

We close with two minor secrets of longevity—one of which is talk, which is a wonderfully cheering and invigorating exercise, from the glow in which it keeps body and mind. The old man who talks, and thus keeps in sympathy with his fellow-beings, is far more likely to reach fourscore than he who, like the "dull weed that rots itself in ease on Lethe's wharf," dozes away his last days in the chimney-corner. The other secret is keeping a hobby, which as a means of prolonging life is to be commended.—Christian Endeavor World.

CHARACTER AND EFFICIENCY

You cannot paint or sing yourselves into being good men; you must be good men before you can either paint or sing.

The day's work of a man like Mantegna or Paul Veronese consists of an unfaltering, uninterrupted succession of movements of the hand more precise than those of the finest fencer; the pencil leaving one point and arriving at another, not only with unerring precision at the extremity of the line, but with unerring and yet varied course, sometimes over spaces a foot or more in extent, yet a course so determined everywhere that either of these men could, and Veronese often does, draw a finished profile, or any other portion of the contour of a face, with one line not afterward changed. Try first to realize to yourselves the muscular precision of that action, and the intellectual strain of it; for the movement of the fencer is perfect in practised monotony, but the movement of the hand of a great painter is at every instant governed by direct and new intention. Then imagine that muscular firmness and subtlety and the instantaneously selective and ordinant energy of the brain sustained all day long, and not only without fatigue, but with a visible joy in the exertion, like that which an eagle seems to take in the wave of his wings; and this all lifelong, and through long life, not only without failure of power, but with visible increase of it, until the actually organic changes of old age. And then consider, so far as you know anything of physiology, what sort of an ethical state of body and mind that means—ethics through ages past!—what fineness of race there must be to get it; what exquisite balance and symmetry of the vital powers! And then, finally, determine for yourselves whether a manhood like that is consistent with any viciousness of soul, with any mean anxiety, any gnawing lust, any wretchedness of spite or remorse, any consciousness of rebellion against the law of God or man, or any actual, though unconscious, violation of even the least law to which obedience is essential for the glory of life and the pleasing of its giver.—Ruskin.

A PRAYER

BY E. B. PUSEY

O God, my God, give me a heart to thank Thee. Lift up my heart above myself, to Thee and Thine eternal throne. Let it not linger here among the toils and turmoils of this lower world. Let it not be oppressed by any earth-born clouds of care or anxiety or fear or suspicion, but bind it wholly to Thee and to Thy love. Give me eyes to see Thy love in all things, and Thy grace in all around me. Make me to thank Thee for Thy love and Thy grace to all and in all. Give me wings of love, that I may soar up to Thee, and cling to Thee, and adore Thee, and praise Thee more and more, until I be fitted to enter into the joys of Thine everlasting love, everlastingly to love Thee and Thy grace, whereby Thou didst make me such as Thou couldst love, such as could love Thee, O God, my God! Amen!

AN OVERLOOKED LESSON

These hurrying days, these busy times of ours, are wasted when they take our hearts away from patient gentleness, and give us fame for love and gold for kisses. Some day, when our hungry souls will seek for bread, our selfish god will give us a stone. Life is not a deep, profound, perplexing problem. It is a simple, easy lesson, such as any child may read. You cannot find its solutions in the ponderous tomes of the old fathers, the philosophers, the theorists. It is not on your bookshelves; but in the warmest corner of the most unlettered heart it glows in letters that the blindest may read—a sweet, plain, simple, easy, loving lesson.—R. J. Burdette.

THE ENTRANCE OF GOD'S WORD

Like children, we are all often crying because of the darkness, crying for the light. We seek light everywhere—the faint glimmer from Nature, the dim candle of men's reasoning. Yet we have close at hand the lamp God has furnished to guide our feet. Do we doubt which is the right path, or whether we are following it? Are we wrapped in shadows of distrust? Does sorrow cover us with its pall of midnight blackness? Has fierce temptation or grievous sin shut us up in Egyptian darkness? There is no gloom so thick that God's word cannot pierce it and show to us the safe road. The rays of Christ's love will brighten any spot on which we may stand, and the beams of promise will light the way.—Exchange.

COURAGE FROM DOING

BY GEORGE S. MERRIAM

The soul learns to draw courage, trust, joy and hope from its resolute encounter with realities without leaning on any explanation. It is the onlooker only who despairs. Literature, so much the work of onlookers, exaggerates the depression. Men of action, toilers, helpers, fathers, mothers, saints—these do not despair. The world as a whole, and the best part of the world, lives a life of action, feeling, exercise of every faculty—which generates courage, strength, tenderness. Under all the confusion and wrong there are still the deep springs of that same experience, that "peace of God," which always feeds the higher life.

THE INVISIBLE

BY ADOLPH MONOD

My friends, the invisible things of God, the things of the last chapter of the Revelations! We shall soon appear before God. None of us can be sure that he will live until the evening. Now, while you have the free use of all your faculties, now is the time to put yourself in communication with the invisible things by means of the Word of God and by prayer. Seek the invisible things. Seek God himself, enthroned in the midst of the invisible world, through Jesus Christ, who has opened it for us by the veil—that is to say, his broken body—and whose love and whose sufferings for us form the measure of the joy which he has prepared for us. "Though it tarry, wait for it; behold, it will surely come and will not tarry."

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SMILES

AT THE 'PHONE

Maud Muller, on a summer's day,
Called "Number, please?" to earn her pay.

Before her, numbers, printed small,
Fell down when any one would call.

The judge took down his office 'phone,
And made to Maud his wishes known.

Said he, "I'll ask you just once more
For four-eleven-forty-four."

Said Maud, as mild as summer seas,
"What number did you ask for, please?"

Said he, "I told you twice before;
It's four-eleven-forty-four."

Said Maud, and you could hear her smile,
"Just hold the 'phone a little while."

A weary interval ensued,
The wires hummed an interlude,

And broken bits of talk came o'er
The 'phone, and made the waiter sore.

The wishbone-shaped receiver-hook
He seized upon, and wildly shook,

Till Maudie's voice he heard once more,
"What number are you waiting for?"

The judge responded, with a roar,
"It's four-eleven-forty-four!"

Serenely Maud made answer then,
"That line is busy; call again."

The judge had business late that day,
And so he merely walked away.

But as he walked he shook his head,
And this is what he sadly said,

"Of all the words of tongue or pen,
The d—dest are 'Busy; call again.' "
—Portland Oregonian.

RHYMED REASON

"To kiss," said he, "is rapturous bliss."
"To kiss," quoth she, "necessitates a miss."
"To kiss a miss," protested he,
"Is an aggravation."
"To miss a kiss," responded she,
"Is poor navigation."
—Selected.

NOT A BENE

'Tis strange to note how things inanimate
Will sometimes prove contrary;
Paper, ink, quills decrease at such a rate,
Yet all are stationery.
—Judge.

WHY DAVID B. HILL WEARS A SILK HAT

There are probably no two men in Albany so nearly alike and so much unlike as ex-Governor David B. Hill and Governor Theodore Roosevelt. Both men are fighters, although their methods differ. Both are brave and eloquent, and each received his office from a political party with which he in many respects differed. The two governors often meet, and there is usually a little quiet fun between them when they come together. Both men have the gift of saying sharp things. Not long ago the New York state newspaper men gave a banquet at Stanwix Hall, in Albany, and among the guests of honor were the two governors. Colonel Roosevelt came first. He wore an evening suit and his famous brown sombrero, made famous by the Rough Riders. It was a combination costume at once original and picturesque. Among the last of the guests to arrive was Mr. Hill, who was conventionally attired, even to his silk hat.

"Ah!" exclaimed Colonel Roosevelt, in his peculiar staccato manner, as he grasped Mr. Hill's hand, "now we have with us a real Albany swell. Governor Hill is the only man here to-night with a silk hat."

"I've got a slouch hat myself," returned Mr. Hill, softly, "but I left it at home. I've given up wearing it since I went out of the advertising business."

Then dinner was announced and the remainder of the evening passed pleasantly.—The Saturday Evening Post.

A DEVOTED COUPLE

The captain had not been long married when he was ordered into camp. To be sure, the camp was in plain sight of the captain's residence, but then it was still a separation; and to enlighten this terrible condition it was arranged that the bereaved husband and wife should signal to each other often with handkerchiefs. It was on the second day that the young wife was seated on the porch reading.

"Tell me, Jane," she said, "is Arthur still signaling?"

"Yes, ma'am," answered the maid.

"Then keep waving your handkerchief. I want to finish this novel."

At the same moment in camp an officer from an adjoining company stepped up to the captain.

"I say, old man," he asked, "why do you keep that man out there all day waving a handkerchief?"

"Oh, it's merely a bit of signal-code practice for him."—Selected.

A RADICAL CURE

A South-African farmer who had lost some cows by the cattle-plague was fully persuaded that he had himself been attacked by the epidemic. Forthwith he hurried off and consulted his medical man, who tried to laugh him out of the absurd notion, but to no purpose.

The farmer then went to an old, well-known practitioner, who, being a bit of a wag and seeing how matters stood, entered minutely into the details of the case, expressed his concurrence with the patient's views, and told him he could cure him.

The doctor thereupon wrote a prescription, sealed it up, and told the farmer to go to a druggist in the next town.

The farmer lost no time in going with the prescription, but was somewhat startled when the druggist showed him the formula, which ran thus:

"This man has the cattle-plague. Take him into the back yard and shoot him, according to law."

That cured him.—Exchange.

A CHOATE RETORT

The wit of the Choates is a family trait. The bonmots of Rufus circulated in his day as Joseph's do in ours. By overwork Rufus had shattered his health. Edward Everett expostulated with him on one occasion, saying, "My dear friend, if you are not more self-considerate you will ruin your constitution."

"Oh," replied the legal wag, "the constitution was destroyed long ago. I'm living on the by-laws!"—Green Bag.

HER COOKING

"I suppose you want a piece of pie?" said the young housekeeper.

"No, lady, I don't," replied the tramp; "but I'd be t'ankful fer a 'ole suit 'o black clo'es, if yer got 'em. De poor feller wot yer gev a piece o' pie ter yestid'y wuz a brudder o' mine—he's dead."—Spare Moments.

A TIMELY WORD

Summer resorts are not to be judged by the adjectives they use.—The Saturday Evening Post.

HIS SCHEME

"Would you advise me to read 'Richard Carvel?' " the fair young girl looked up and asked him.

"Not yet," he gravely replied. "Always wait until a book has been on the market for a full year and a half before you read it." A little later he murmured softly to himself, "By that time I may be able to get her a copy for fifteen cents."

THE RESULT

A teacher in a North of England boarding-school was recently examining a class of small boys in mental arithmetic.

She said, "If your father gave your mother thirty shillings to-day and two pounds to-morrow, what would she have?"

And a small boy near the bottom of the class replied, "She would have a fit."—Spare Moments.

THE KICKING AGRICULTURIST

Silas—"What be yew grumblin' about? Yew've got a good crop, an' ther prices is good, too."

Hiram—"I know that; but if I sell my crop now ther prices is boun' to go up, an' if I hold on an' wait fer higher prices they will surely git lower. Either way I can't help but lose."—New York Journal.

THE DECLINE OF ANOTHER GOOD THING

"Umph!" reflectively remarked the man with whiskers.

"Yes?" interrogatively murmured a by-stander.

"It seems to me," continued his whiskers, "that horse-sense is going the way of the horse."—Kansas City Independent.

CHARITY

Mrs. Brown—"A lady called to-day to solicit broken and discarded toys for the poor little orphans. Wouldn't you like to give them some of yours?"

Bobby Brown—"Why, certainly, mama! I'll get right to work and break up a big batch of 'em!"—Puck.

APTLY PUT

The Englishman—"Don't forget, sir, that the Boers have one great advantage—they are on their own ground."

The other man—"Then what are you fighting them for?"

BITS OF WISDOM

Broken hearts hab sometimes bin repaired so dey last a good while longer.

Don't jedge a man by the tales ob his enemies; his fren's will admit his faults.

Dar ah lots ob love-matches said to be made in heaben dat end in de uddah place.

Dar 'ould be a great deal less mischief done in de world ef mo' people stuttered.—Arkansaw Thomas Cat.

DISTURBED REST

Mr. Langshan—"You seem to be very much worried and distressed this morning, Mr. Shanghai. What seems to be the trouble?"

Mr. Shanghai—"Well, you see I don't roost very well at night."

Mr. Langshan—"How do you account for it?"

Mr. Shanghai—"Oh, that's easy. A preacher has just come to board at our house."—Selected.

EYESIGHT RESTORED.

Failing Eyesight, Cataracts or Blindness Cured Without the Use of the Knife.

DR. COFFEE, of Des Moines, Ia., cured 13,000 blind and deaf people last year with his new medicines. He cures cataracts, white spots on the eyes, and all diseases and weak eyes and deafness and head noises, with mild medicines.

Patients can cure themselves at home without going to Des Moines.

W. OAKLEY COFFEE, M. D.

Write him for 80-page book telling all about his discoveries sent free. E. C. WOODS, Crescent, Oklahoma, says his son was cured of cataract and inflammation of eyes by Dr. Coffee's remedies by mail. THOS. GORMAN, Auburn, Sac Co., Iowa, says: "I had been growing deaf for 12 years; had head noises and catarrh. Dr. Coffee's home treatment cured me. Write me." Mrs. LUCY HAMMOND, Aurora, Neb., says: "Had cataract on both eyes and Dr. Coffee's remedies restored my sight perfect. Am 77 years old." M. W. LOGAN, Des Moines, Iowa, was cured of deafness and son of asthma by Dr. Coffee. Write to

DR. W. O. COFFEE, 333 Good Block, Des Moines, Ia.

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$75.00 a Month AND EXPENSES to parties with rigs, to introduce our standard quick-selling specialties, and appoint agents. Write quick. Enclose stamp. THE H. M. SHEER CO., QUINCY, ILL.

No. 342 Sizes 4, 5, 6, 7, 8, 9, 10
No. 343 Sizes 4, 5, 6, 7, 8, 9, 10

Solid Gold Rings Free

ALL of these rings are warranted solid gold. All of the settings are open on the back, so they can be easily cleaned. These same rings sell for $2.50 and upward. No. 345, if bought in a city jewelry-store, would be considered cheap at $3.00. Warranted to be solid gold and to give full satisfaction or money refunded. The stones set in the rings are only imitations, yet are so perfect that none but good judges can tell the difference.

No. 344 Sizes 4, 5, 6, 7, 8, 9, 10
No. 345 Sizes 5, 6, 7, 8, 9, 10, 11

No. 342.—A solitaire imitation Diamond in Tiffany setting.
No. 343.—An Emerald (green)—a very popular ring.
No. 344.—Has three Garnets (red)—one large and two small ones.
No. 345.—Fine, large Amethyst (purple)—a great favorite.

NOTE that all of the above-named stones are imitations, and not real diamonds, garnets, emeralds, etc.

We Will Send the Farm and Fireside One Year and Any One of the Rings for $1.25

(When this offer is accepted the club-raiser may have either the regular cash commission or the name may be counted in a club)

FREE Any ONE of these solid gold Rings given Free for a club of SIX yearly subscriptions to the Farm and Fireside.

A
1
2
3
4
5
6
7
8
9
10
11
12

To find the size of the ring you wear, take a narrow strip of stiff paper that just meets around the finger you want to fit; lay this strip on measure shown here, one end at A; the other end shows the size to order. Each ring is made in seven sizes only. Always give the size you want.

ADDRESS
FARM AND FIRESIDE,
Springfield, Ohio

HOUSEHOLD

[CONTINUED FROM PAGE 11]

GIVE ME MY DREAMS

Give me my dreams. All else is naught,
At price of pain success is bought;
We struggle upward but to fall,
The prize we grasp but holds us thrall;
The lips that cheer us through the years
Some day smile not for all our tears;
We build awhile, we know not what,
And the toiler is forgot.
Give me my dreams.

Give me my dreams. A child am I
Who stands in darkness but to sigh
Until a hand doth backward roll
The gray, damp mists about my soul;
And then, oh, dream of dreams that cheers!
They come, the loved of other years,
And voices whisper, soft and low,
The loving words of long ago.
Give me my dreams.

Give me my dreams. Oh, little maid
With whom of old I laughed and played,
They say the ivy loves to creep
Above the grave where now you sleep;
They say the robin's song no more
Can wake you as it did of yore!
What matter? Still in dreams you creep
Unto my side a tryst to keep.
Give me my dreams.

Give me my dreams. All else is dross,
But still I count it little loss,
For yet in dreams the bright stars burn
As in the years to which I turn,
White hands reach to me through the mist,
By lips I loved my lips are kissed,
And all life's fields are love aglow
As they were once, oh, long ago!
Give me my dreams.

—A. J. Waterhouse, in Los Angeles Herald.

HOW TO DRESS FOR CAMPING

Durability and necessary warmth without weight must be considered in selecting the outfit of camping-clothes. It is claimed on good authority that the points which follow are decidedly the best regarding forms of dress for women campers. They are the result of many experiences, from that of the veteran to the camper of a single season. As to the first, all agree that the underwear should be woolen and the union suit, winter weight being none too heavy for the Northern camp. As to hose there is a division of opinion, a few declaring in favor of woolen, but the majority preferring heavy cotton. The present form of bicycle hose with linen feet is probably best of all. A shirt-waist of flannel or a man's flannel shirt comes next, the latter being as comfortable; over it the short skirt is to be buttoned. No underskirts are to be worn, but instead knickerbockers of canvas, buckling about six inches below the knee. A short skirt of the same canvas, fitting close above, but full at the bottom, and a coat of the same material complete the costume. The most serviceable coat is made like a boy's box-coat—double-breasted. It must be something to button up to the throat when needed. A canvas cap with double vizor finishes the suit.

Why canvas rather than wool? Because wool tears and rubs and does not bear exposure in the same fashion. The canvas in question is the tested material for sportsmen, its "dead-grass color" having been chosen as the least conspicuous thing for the hunter. The eight or ten ounce weight is generally used, and it is almost imperishable, coming out after a washing as good as new. The entire suit, except the skirt, can be had ready-made of dealers in camp supplies, and as the material is practically waterproof it does away with the need of a mackintosh.

Foot-wear is the next consideration, and for this there is nothing better than the hunter's boot made of oil-tanned horsehide lacing nearly to the knee with a bellows tongue. These boots may be soaked all day in water, and yet after drying by the camp-fire all night come out next morning as soft and pliable as if never wet. Shoes and leggings can be worn, but these boots combine the two, and are also a protection against insect-bites. A pair of soft canvas shoes should be taken, to wear for a change. There is nothing to be feared from wet feet. A rub and toasting before the open fire will ward off any cold, and one soon ceases to even think of the matter. No wraps are necessary, unless you are to stay very late in the autumn, for an extra flannel shirt slipped on will give all warmth needed.

Gloves should be heavy and long-wristed and a size or two larger than those worn at home. With the packing of these matters in small space comes the providing of toilet articles, and for these a small canvas bag is best, made of heavy brown duck, some ten by twelve inches, with a draw-string, and stitched through the center, to make two divisions. In one keep the toilet articles for daily need, and in the other the little mending-bag made of chamois or of the wrist of an old mosquetaire glove, which must hold thread, needles, darning-cotton, buttons, etc. A little bottle of pennyroyal-oil, to protect against mosquitoes, is necessary, and you will want vaseline and maybe a little cold cream for severe sunburn. Veils are of little use, as they catch on everything, and the head-net is needed only when the black fly is especially numerous. For mosquitoes and midges pennyroyal-oil proves sufficient, and if especially bad a "smudge" can always be built.

THE BEST TENTS AND BEDDING

Only the experienced campers realize the necessity of great care in the choice of a tent. Campers of widest knowledge declare against the "wall" and the "A" tent—those most generally used—having found that any closed tent is bad, because it retains the dampness. A tent entirely open on one side, so that the camp-fire at night and the sun by day can light and warm every recess, is the best, and a tent is now made with an awning, which is practically house and piazza, and which can be closed if necessary. Such a tent has front curtains hung by snaps and rings, and though not as common as the others, it can be found.

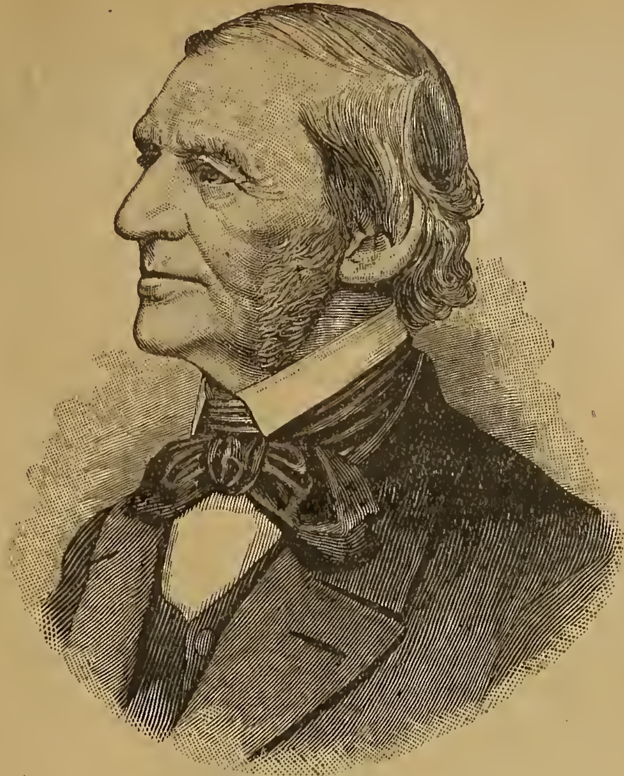
Blankets are of even more importance; and the very best should be bought, dark gray in color and about eight pounds to the pair. Where people camp in pairs three double blankets are enough; if singly, two each will be needed. Add to these a rubber blanket about six by four, costing about $1.50, and one of the most useful of camp possessions.

If a permanent camp is to be made, camp-chairs and beds can be taken where transfer-wagons can come; otherwise reject them. A pillow may be allowed, but it should be simply a case made of thickest ticking, to be filled after arrival. Make buttonholes at the end, so that it can be buttoned together. Take also some yards of close-woven mosquito-netting. A hammock may be added as a luxury if you can spare space. The pillow is to be filled with "spruce browse," of which your bed will also be made, this "browse" being only the tips of the sprays, and never by any chance pieces of the branches. Pile it as thick as possible—to have it thick means a good, springy, soft and breathing balm and tonic. A short, crotched stick is to be driven at each end, standing a foot higher than the bed. Across this place a light ridge-pole, and over it hang the mosquito-netting, under which you may sleep in peace.

P. W. HUMPHREYS.

MY LADY'S COLOR

A Parisian authority upon the subject of dress has just given a list of colors suited to different complexions. For brunettes with a creamy skin and black or brown hair the list comprises ivory-white, orange, very pale pink veiled with white lace or gauze, bright red and brilliant black in combination with white or a color. Women with a warm color, brown hair and a brownish complexion are allotted bright pinks, very pale turquoise-blue, pinkish lilac, cream, and especially such combinations of color as mastic and red-gray and pink, brown and blue, and, generally speaking, striped effects. For the golden-brown locks, with a fair, pale skin, there are black, pinkish gray, periwinkle-blue, navy-blue, dark red, milk-white and very dark greens. Rosy blondes should wear golden brown, beige, mastic ruby, bright violet, all white, canary-yellow and white. Pale blondes are permitted dull black, dark red, all violet, sapphire-blue, bright turquoise-blue and very pale pink.



RALPH WALDO EMERSON
(One of the portraits from "Gems From the Poets")

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THIS work contains a discriminating collection of what may be considered the Gems from all the poets. Only representative productions are used, and as a result we have the very highest class of literature. It contains choice poems for all moods, all occasions, and will surely please every one. It is the *only* low-priced collection of poems *fully* illustrated. In fact, it is more completely illustrated than any similar work ever issued, either high-priced or low-priced; each page has one or more illustrations. The designing and engraving of the illustrations alone cost at least $20,000. The pages are large—7¾ by 10 inches—and the book is large in proportion. In addition to the large list of poems by the masters of literature and their superb illustrations the work contains a very interesting collection of **portraits and biographies of popular poets.**

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We feel free in saying that no better value has ever been offered in a premium by any paper than this great work.

Given as a reward for a club of TWO yearly subscriptions to the Farm and Fireside. Postage paid by us. Order by Premium No. 26.

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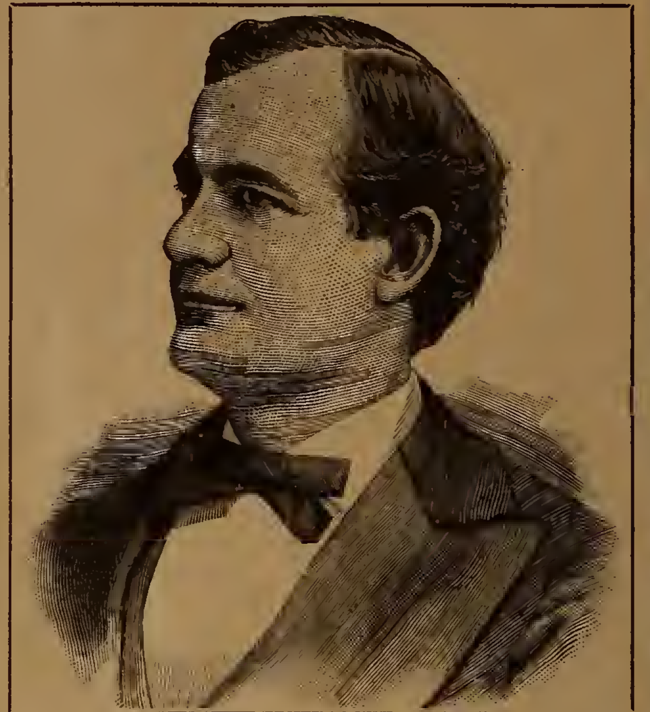

THESE PICTURES are reproduced from late photographs for which the candidates specially sat at the request of the publishers. The pictures are **14 by 21 inches** in size, printed on heavy plate-paper in a form suitable for framing. They are in no sense cheap chromos, but examples of the **very highest style of illuminated printing**, and either of them will be an ornament to any library or drawing-room. The pictures are in the natural colors, and at a short distance give the effect of **GENUINE OIL-PAINTINGS.** We are furnishing them cheaply enough to be hung in a window, and yet they are good enough to be framed and preserved for time to come. The photographs from which the pictures are made having been taken for that purpose and approved by the respective candidates, are remarkably good likenesses of them as they appear at the present time. **They are the most popular campaign art souvenirs.** Every American, Republican or Democrat, should have in his home the picture of his party's chosen leader.

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This Cook Book contains thousands of the most valuable recipes and desirable formulas by noted experts and over two hundred practical housekeepers. It covers every branch of cookery, with special directions for serving at table; also preserving, pickling, candy-making, etc., and ten more chapters of helps.

Plain and Fancy Cooking in Great Variety

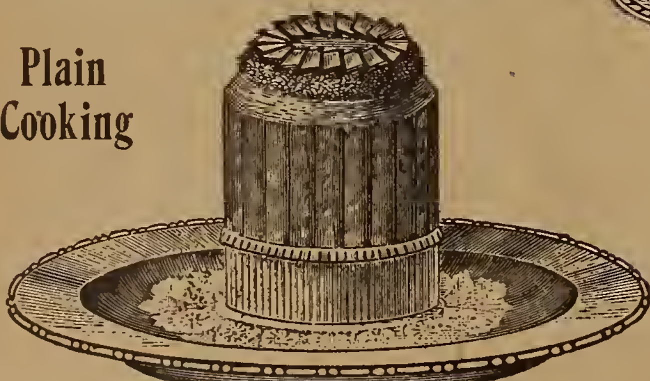
ATTENTION is called to the unequaled variety characterizing the recipes in this Cook Book. Practical housekeepers consider this one of the very strongest features of this new work, adapting it to universal use, and suiting every occasion, from a simple and inexpensive home meal to an elaborately prepared entertainment for company.

FRUIT ON CAKES

This is the Cook Book You Want

BECAUSE its plan includes the valuable and useful points of other cook books, and IN ADDITION it has inestimable features of its own entirely new. For REGULAR USE it will give you the best of satisfaction as a clear, safe, reliable, economical kitchen guide, with an abundance of good things to choose from. **It far surpasses all others.**

Plain Cooking



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MAKING clear at a glance important processes in plain and fancy cooking. To show HOW a thing should be done amounts to far more practically than any mere bidding do it. Once accustomed to the pictorial object-teaching methods of this THOROUGH and COMPREHENSIVE work, no lady will be willing to go back to the unsatisfactory directions of other cook books. This Cook Book has a complete index.

This Book Given FREE for a Club of TWO Yearly Subscriptions to the Farm and Fireside.

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40 Cent Patterns for 10 Cents

We Will Send Any TWO PATTERNS, and This Paper One Year, for 40 CENTS

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These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only ***10 Cents Each.***

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, *with a picture of the garment to go by.* These patterns are complete in every particular, there being a *separate* pattern for *every single piece* of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

To get BUST and BREAST measure, put the tape-measure ALL of the way around the body, over the dress, close under the arms.

Special price of each pattern 10 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

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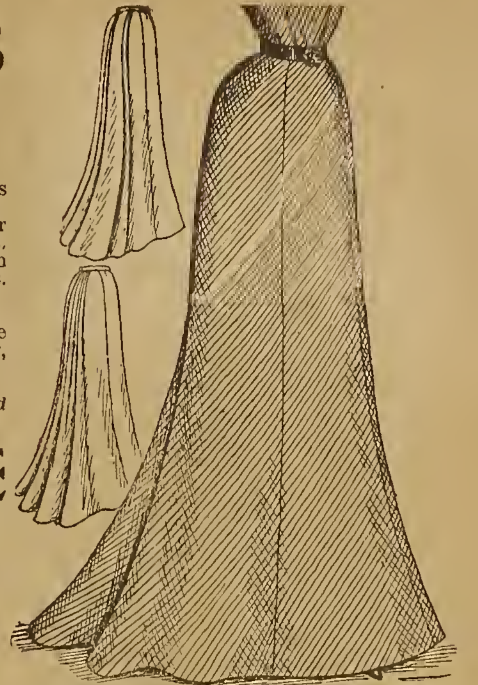

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No. 7993.—Misses' Collarless Eton. 10 cents. Sizes, 12, 14 and 16 years.

No. 7939.—Misses' Skirt. 11 cents. Sizes, 12, 14 and 16 years.

No. 8005.—Misses' Fancy Waist. 10c. Sizes, 12, 14 and 16 years.

No. 8007.—Misses' Three-piece Skirt. 11 cents. Sizes, 12, 14 and 16 years.

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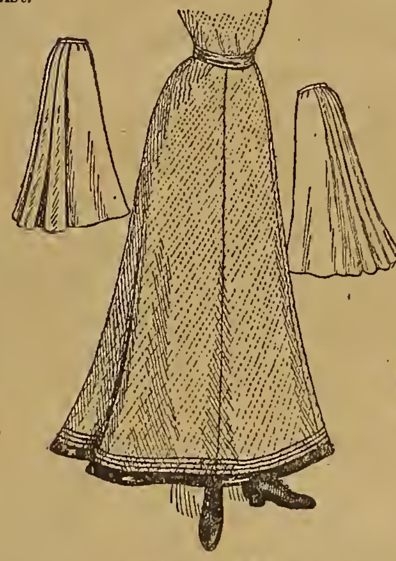
No. 7626.—Child's Dress. 10c. Sizes, 6 months, 1, 2 and 4 years.



No. 8007.—Misses' Three-piece Skirt. 11 cents. Sizes, 12, 14 and 16 years.

No. 7874.—Ladies' and Misses' Fancy Shirt-waist. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust, and 12, 14 and 16 years.

No. 8008.—Girls' Eton Suit. 10c. Sizes, 6, 8, 10 and 12 years.

No. 7998.—Girls' Shirt-waist. 10c. Sizes, 6, 8, 10 and 12 years.

No. 7886.—Boys' Blouse. 10 cents. Sizes, 2, 4 and 6 years.

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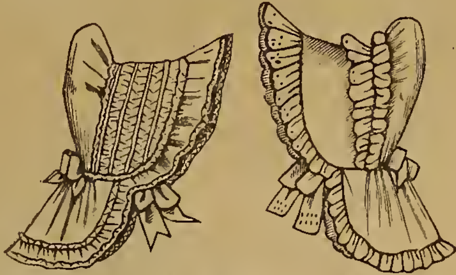

No. 7980.—Ladies', Misses' and Children's Sunbonnets. The three patterns for 10 cents.

No. 7815.—Ladies' Morning-jacket. 10 cents. Sizes, 32, 34, 36, 38, 40, 42 and 44 inches bust.

No. 7999.—Ladies' Waist with Scalloped Yoke. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.

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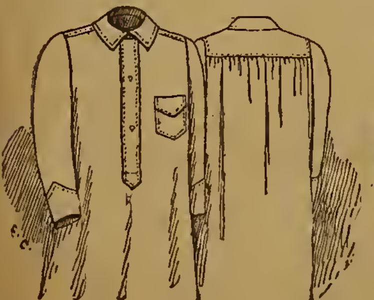

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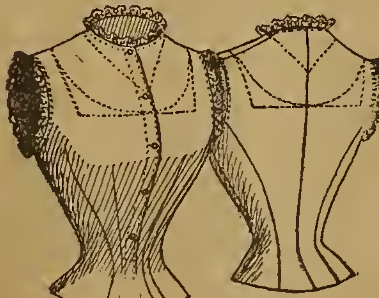
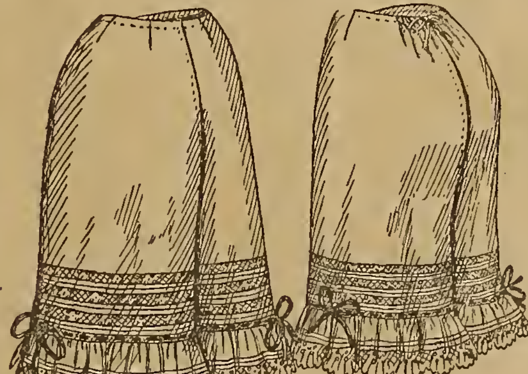
No. 6250.—Same—Boys' Size. 10 cents. Sizes, 10, 12, 14 and 16 years.



No. 7921.—Ladies' Corset-cover. 10c. Sizes, 32, 34, 36, 38, 40, 42 and 44 inches bust.

No. 7936.—Ladies' Shirt-waist. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.



No. 7918.—Ladies' Dart-fitted Drawers. 10 cents. Sizes, 22, 24, 26, 28, 30 and 32 inches waist.

BUTTERFLIES AND MOTHS

[CONTINUED FROM PAGE 6]

rest with the wings outspread they have their protective coloring on the upper side of the wings, while butterflies, that rest with wings erect, bear their defensive colors on the under side—the side visible when they rest. Thus nature seems to provide that in flight they shall take their chance, but that when they rest they shall be safe and undisturbed.

Like the butterflies, the moths have also their fantastic markings, serving no purpose we yet can trace. Such is the death's-head moth, bearing on the upper side of the thorax a perfect picture of a human skull, while the cross-bones of old-time tombstones are painted on the wings.

Great interest attaches just now to a single moth, which has made itself prominent as a destroyer of vegetation. It is called the gipsy-moth (Ocneria dispar), and has taxed all the energies of the state of Massachusetts for its extermination, which is not yet accomplished. This moth is a native of Europe and Asia, being found all the way from Spain to Japan. In size and color it is rather insignificant. The male moth is about one and one half inches across, the wings brownish yellow in color, with dark-brown markings. The female (shown in the illustration) is larger, measuring two inches across the wings, and is of a pale yellowish-white color and very sluggish.

The gipsy-moth was introduced into Massachusetts in 1868, the same year that brought the cabbage-butterfly to New York. M. Trouvelot, a French naturalist, brought over a few of the little creatures to Medford, Massachusetts, for purposes of experiment. By accident some of them escaped, and he

GIPSY-MOTH (Natural size)

warned the neighbors to hunt them down—with the usual success that attends such warnings. Unchecked in this new land by the hereditary enemies that held it in restraint in the Old World, the new race rapidly multiplied and spread. In 1889, twenty-one years after their introduction, the gipsies had become so numerous that the state arose to combat them, and appropriated $25,000 for their extermination. It was soon found that this was but a beginning. The gipsy-caterpillars are very voracious, will eat indiscriminately anything vegetable, and grow fat on Paris green. They seem to have a special immunity from most insect poisons—at least from such as can be used without destroying vegetation. The chief hope of their extermination is in the destruction of their eggs, which, fortunately, are laid in conspicuous clusters in exposed situations on twigs and elsewhere. Up to 1898 Massachusetts had expended $725,000 in fighting this little insect. The appropriation for the year 1898 was $190,000, and three hundred men were kept in constant employment. There are now but four townships where these moths are at all common. Yet it is known that if the warfare is once relaxed, those four townships are enough to populate the continent.

FARM WAGON ONLY $21.95

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold for only $21.95.

This wagon is made of the best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

FLORIDA CLOVER

The wise use of this plant in summer and winter vetch or something similar in winter, building up the land the year round, will one day make Florida land as valuable an acre as that of Kentucky. I mean, of course, fairly good first-class pine or flat woods, not sand-hills.

It comes up in the corn-fields, after the crop receives its last working, as thick as grain in a well-sown field. About the time the corn-blades are stripped, or the "fodder is pulled," as it is termed by our farmers, the Florida clover or beggar-weed is about knee-high. It is now that the summer rains set in regularly, and the summer sun gets squarely down to business, and under their combined influence the growth of the clover beggars description. By the end of August it stands about six feet high, as an average, all over the cultivated fields. The foliage is very dense, being quite different in that respect from the hateful Northern beggar-lice, and completely shades the ground during the long summer. With a suitable plow this crop, heavy as it is, can be completely plowed under.

If turned under green in August another crop springs up immediately, for a sufficient quantity has by that time matured to seed the ground. This second crop can again go under in October. Compare the returns made by these two crops with the toll taken from the land by the corn crop, and determine on which side the balance stands. But the plowing down of a heavy green crop in August involves heavy work on a team in a hot time, besides making it necessary that the matured crop of corn shall first be removed, which is also a very warm occupation for August. For these reasons it is the exception rather than the rule for this crop of clover to be turned under at that time. It is left to die where it stands, and after shading the land all summer—itself no mean equivalent for manuring—it throws down, late in the fall, a coat of leaves that quite covers the earth. After the first frost the stems, which average the size of a walking-cane or a man's finger where the plants stood wide apart, become exceedingly brittle and fracture readily under the headway of a team and the roll of the earth from the mold-board. The ease with which they are turned under would astonish one not accustomed to it.

Whenever the summer sun is gone, the land turned over with this heavy crop of weed-stems, which pulverize and very soon rot, is not injured by this heat. During the succeeding months of November and December it grows as mellow as an ash-heap, and begins the feeding of a crop in January with three times as much plant-food at its disposal as at the January preceding. This gives the Florida farmer the advantage of growing his market crop and his fertilizing crop on the same ground during the same year, with no additional cost of handling, no outlay for seed and no loss for the use of the land. That this Florida clover is superior to red clover or pea-vines as a renovator of the land is the conviction of every intelligent farmer who has had an opportunity of comparing them. It has a long tap-root, which goes into the subsoil and brings up the mineral salts, and it yields far more bulk of foliage to be plowed under than either of the above-named plants. It is also a most excellent and nutritious feed for stock. Everything eats it, even the poultry. Horses turned into a corn-field before the crop is gathered will greedily devour the beggar-weed and grow fat, and leave the ears of corn unmolested, unless they are very bright and free from moldiness.

The presence of this plant in middle Florida has saved her lands from utter ruin under the shiftless and exhausting system of farming to which they have been subjected since the war. Despite the drawbacks that anywhere else would have resulted in utter impoverishment, lands in that section that have been continuously under bungling African cultivation for thirty or forty years have really increased in fertility; and some of them to-day produce as abundant crops as when covered with virgin soil immediately after being cleared.—R. J. W., in Farmer and Fruit-Grower.

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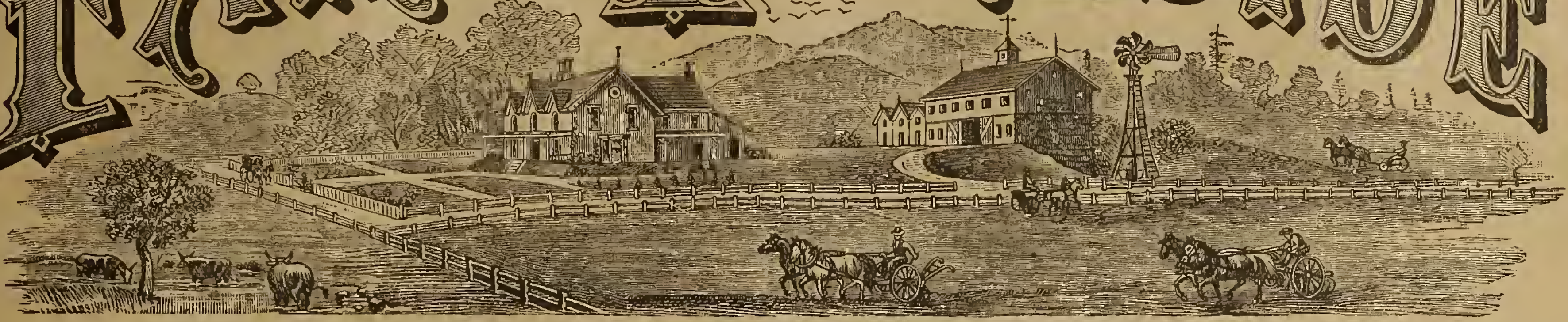

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HERMIT LIFE IN COLORADO

BY H. A. CRAFTS

Human nature in Colorado presents many types and varieties. Among her men individuality is strongly marked. Whether the native-born Coloradoan will evince similar traits of character is yet to be proven, for the first generation of that product is just coming on the scene. Doubtless heredity and association will have much to do in marking the first generation or two, and then society will mold itself into a more homogeneous mass. But this peculiar cast of character can be easily accounted for. Peculiar conditions attract a peculiar class of people. Wild and remote, it attracted in the early days an even more marked type of men than it does to-day, when the advent of numerous railroads has brought the state within the pale of advanced civilization. Its pioneers have made a place in history, unique if not chivalrous. They were actuated in their migrations almost wholly by a spirit of adventure. They were made of that tough kind of metal that steels one to sever the ties of home and kindred and brave unknown dangers in a new and strange country. Although the old-time dangers and hardships have been largely eliminated from Western life, the entrance to many walks in Colorado to-day is not devoid of the elements of adventure. There still exist within the boundaries of the state vast solitudes of both mountain and plain beset with dangers for the lonely adventurer; bleak and lofty steeps, where the unwary traveler may be buried by an untimely snow-storm or crushed to death by a sudden avalanche. There are vast forests that may hide one from the outer world and bewilder one with their dark and interminable shades. There are deep canons where the wayfarer may be overwhelmed by the mountain torrents or attacked by bands of outlaws or hungry packs of wild animals. And it was not so many years that the untutored Indian was a menace to the white man who ventured too far from the protecting arm of either civil or military authority; but now, thanks to a long system of repression, this element of danger has been removed, the remnants of a once powerful race being mewed up in narrow reservations, calmly awaiting the destiny that fate very apparently has in store for them.

Not by the slow but steady influx of a pastoral people, or the multiplication of increasing generations, has Colorado's population been built up; but rather by the erratic influence of popular excitement. The magic lodestone that has probably attracted the larger crowd is the glittering promise of mineral wealth; and so potent has been the golden promise that Colorado has erected upon a pedestal underlaid with broken hopes, broken bodies and broken fortunes the proud monument of mineral supremacy in the nation.

Another hope Colorado holds out to the world—the healing of the sick by the benign influence of her climate; and she is peopled to-day by thousands undergoing self-imposed exile in search of health and strength. These stricken ones haunt her towns and hamlets, farms and ranches, mountains and plains, hoping to be made well by her pure air and abundant sunshine. And these conditions, together with others of minor importance, have imposed upon her social system what might be denominated bachelor life, and which admits of a further subdivision, evolving a sort of hermit life. In many cases this life is merely temporary; in others it becomes established. Ofttimes the husband and father leaves his family in the East and delves alone and single-handed in the mines or upon his piece of government land until such time as he shall be able to send for his little flock and give them a comfortable home in the land of his adoption. Thousands of young men bid farewell to their sweethearts and come to Colorado to carve out their fortunes before marrying and settling down. You will find their bachelor quarters on the farm, the sheep-ranch, the cattle-ranch and in the mining-camps. No end of hard work and manifold privations do these pioneers endure in their efforts to make homes for those they love. But I am of the opinion that the majority of them triumph in the end, and get their heart's desire, for stout purposes, coupled with great opportunities, are bound to win.

A GOLD-HUNTER

But I can readily conceive how Colorado should be a favorite resort for those who seek solitude for solitude's sake; for with all her wealth and activity there yet remains thousands of retreats where the face of man is seldom seen—mountain fastnesses where there is naught to disturb save the voice of the elements; vast tracts of treeless plains, where naught is heard save the chatter of the prairie-dogs and the whisper of the winds through the bunch-grass. Congenial abiding-places are these for those who are stricken in spirit and look with aversion upon the faces of their fellow-men; those, perchance, born beneath an unlucky star, and the current and tenor of whose lives have somehow been turned awry. How prone are these exiles to live alone with Nature!

It is no wonder that this class of individuals should turn their faces toward Colorado, where they find the widest plains, the tallest mountains, the purest air and the brightest sunshine. They pitch their tents upon the plains, and rear their log cabins among the pine-clad hills of the Rockies. They wend their way from place to place, as if the whole earth were theirs and they had but to command entertainment among their innumerable vassals. A horse or a donkey or a dog may be their sole companion, and upon the back of one of the afore-mentioned animals the substance and sum total of their earthly possessions may be packed in one bundle. A pair of blankets and a square of canvas suffice for bed and roof, even in inclement weather. For victuals, a sack of flour, a side of bacon and a pound of coffee are sufficient for the day thereof, for are not there fish in the streams, and fowl in the air, and wild plums by the country-side or far up in the mountain glens, that do very well by way of varying the bill of fare? Wherever hunger or fatigue or night may overtake them, there is their halt and resting-place. To be sure, water is something essential—for ablutions, for the brewing of a pot of coffee and the watering of the dumb companions. The tiniest camp-fire sends up its column of smoke, and if it be in the dusk of evening, a flame hardly larger than that of a glow-worm burns a pin-hole in the dark canopy of night. Here we see a modern type of the primitive man. But you must not deceive yourself with the idea that he is an untutored savage. Let him but open his mouth, as no doubt he will if you cultivate him judiciously, and ten to one he speaks in the classics, and can tell you all the jaw-breaking names of the thousand bright-colored wild flowers that spangle the plains or mountain slopes, and of all the minerals that form such a large part of the hills.

Be it remembered that these lives are not of pure vagabondage. Nearly every one of these children of Nature have some semblance of an occupation. One may be on the hunt for a gold, a silver or a copper mine; another herds sheep off and on, as he needs a wage, for some of the range-men; a third may hold down a government claim, whereof the chief products are jack-rabbits and cactus-beds. Then others cut timber for the sawmills, or ties for the railroad contractors; cut fence-posts and poles for the grangers; burn charcoal for the blacksmiths and braziers in town; cultivate a patch of potatoes in some small, alluvial mountain valley, or follow a dozen other desultory occupations that suffice for food and raiment and the poor man's boon of pipe and tobacco.

A COLORADO PHILOSOPHER AT HOME

FARM AND FIRESIDE

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Dr. H. H. Lowry, an American who has lived many years in China, and who is president of the Peking University, in a recent press interview said:

"Just before leaving China I had a talk with the American minister to China, Edwin H. Conger. He told me that the representatives of the powers had considered the matter in all its various phases, and had reached the conclusion that a partition of China would be most undesirable, for it could not be done without the inevitable and long-expected general war. You see, every nation is anxious to obtain the yolk of the egg. Every nation wants to obtain more than its competitors. Russia, which is the strongest power in the East to-day, is said to be behind the sudden reactionary movement, and I believe this to be true. At the same time Russia can do nothing, even with the aid of France, so long as America, Great Britain and Japan act together.

"The Chinese are essentially a commercial and agricultural race. The general conception that they are all akin to the laundryman so common in our country is absurd. China has a high civilization, with a fine literature, and while Chinese methods may seem antiquated and ridiculous from our view-point, yet there is much to be said in favor of the Confucian civilization. For instance, there is not one line in all the Chinese sacred books, upon which civilization rests and which prescribe etiquette and morals, which could not be read aloud before children. This is more than can be said of the sacred books of some other nationalities and races. But to return to the individual Chinese. He is not dense; on the contrary, he is an intellectual marvel in many respects. The greatest Occidental diplomats are helpless when face to face with the diplomats of China. A Chinese diplomat will sit opposite to you and will lie most palpably and openly, and yet, knowing that every word he has uttered is a lie, you can do nothing. That is why diplomacy moves so slowly in Peking.

"Time and again the foreign representatives in Peking have thought they had the Chinese government cornered, without a loophole for escape. Nevertheless, when the crucial moment has arrived, Chinese 'diplomacy' has enabled the government to turn a mental somersault and to wiggle out of any and all promises made."

Answering the question "Is China worth the trouble she is giving?" Dr. Lowry said:

"Most assuredly. It is no secret that China is one of the richest mineral countries in the world. Valuable minerals and precious stones can be found in many parts of the vast empire. As yet little mining has been done—that is, what we consider mining—but the minerals are there awaiting the call of man. China's lands are fertile, and were they tilled according to modern methods would yield handsome returns, especially if properly fertilized. Even as it is, many, if not most, of the farms in China, though they have been under cultivation continuously for more than a thousand years, still yield good crops. This speaks well for Chinese soil, if not for the farmer.

"Yet China's future is not as perplexing as might seem at first glance. The solution which, to my way of thinking, must come, is to have the empire governed by a home government, sanctioned and controlled by the nations. In that way alone will China ever make a lasting advance. I had sincerely hoped and expected that to Japan might fall the lot of modernizing China, but international jealousies made this impossible. As it is, we must all hope that the nations may not so far lose their heads as to plunge into war on account of China. It would be terrible, and would be of no benefit to China. Rightly governed, and with her resources properly and judiciously developed, China will prove a tremendous factor in the world's affairs—commercially and otherwise."

Reviewing the prospects for the 1900 wheat crop the "Cincinnati Price Current" says:

"The later information concerning disaster to the wheat crop of the Northwest, notably with reference to North Dakota, confirms the apprehensions previously entertained, and dissipates the hopes of relief from needful moisture. The three states are not likely to produce more than 100,000,000 bushels, or about half what they probably harvested last year, and possibly may result even more unfavorably. This means that the present indication for the entire spring-wheat crop is not over 200,000,000 bushels.

The winter-wheat harvest, if not disturbed by unfavorable weather conditions, may be expected to reach 350,000,000 bushels. There is no good ground for a lower estimate at this time. This means about eighty-two per cent for condition with reference to yield of winter wheat, as the general average for the area standing.

"The present situation with reference to other countries is far from discouraging. European production in the aggregate can be expected to equal last year. All other foreign countries, exclusive of South America, point to an aggregate equal to last year. South American production the past year has been reported as 112,000,000 bushels for Argentina, Chile and Uruguay. If 75,000,000 for the coming harvest in those countries be counted on, the world's wheat crop for 1900 should reach 2,750,000,000 bushels. This compares with about 2,775,000,000 as estimated for 1899—practically equal quantities. The world's wheat production the past five years has averaged 2,620,000,000 bushels, compared with which the outlook for 1900 indicates an excess of five per cent.

"Wheat supplies are abundant in this country and abroad, so that the coming year begins with large reserves. This country will have 75,000,000 to 100,000,000 bushels of marketable wheat on July 1st of production previous to this season. Foreign countries appear to have as much wheat as a year ago, and in fact more when the unmarketed supplies in Argentina are taken into account.

"The year now before us should be expected to be one of ample supplies of breadstuffs, and of healthy trade, if not too seriously deranged by undue speculation."

"Is Russia to Control All of Asia?" is the title of a notable article by Mr. Alexander Hume Ford, in the "Cosmopolitan" for July. The author presents a clear view of Russia's military dispositions and diplomatic advantages, and describes the workings of the Czar's stupendous drag-net, which, in the closing year of the nineteenth century, may yet add more territory and people to Russia's domain than has any full century in her history."

The article concludes as follows:

"With Russian influence paramount at Teheran, Herat and Peking, the Eastern question seems nearing a solution. Lord Charles Beresford foretold that the annexation of Manchuria would but precede the successful invasion of India by the Slavonic people, and how farsighted was this statesman may be judged from the fact that Russian influence is now so far paramount at Peking that all concessions given out seem to find their way eventually into the custody of the Russo-Chinese bank. One by one the Chinese provinces, each with a separate army and language of its own, is being gathered into Russia's on-sweeping drag-net. In another decade, at most, French and Russian military lines will bound India; then, when Russia wills, must come the end, and France will have to give her ally Russia a remarkable excuse to be allowed to retain for long her possessions in Asia.

"America is now the unknown quantity in the Far East. By leaps and bounds her trade is increasing, while that of England is declining. Active American business men are penetrating to the farthermost corners of China and Siberia. Russia is extending a welcoming hand, for, as I have said, we make her forever independent of Europe. As yet Russia is not a manufacturing country. But the time will come when she will be able to supply the people of her own conquests with all they need, and then will come the real conflict. The open-door policy is far more welcome to Russia now than the 'Sphere of Influence,' which would mean her exclusion from parts of Asia. Once Russia has brought the people of China under her sway she will have a standing army greater than all the other combined forces of the world, and with but one vast cohesive country, without a single detached colony to defend. This is the stake Russia is playing for. Confident that the Anglo-Saxon race has seen the apex of its glory, the Slav believes he is to rise to the position of world-power with the twentieth century. He admits but one rival, the nation whose friendship he has courted from its inception—America.

"The American demand for an open door in China for all time has not, however, as yet met with enthusiastic support of the Russian government. It has come at an inopportune time, for the Czar is truly desirous of peace, on the biblical ground that 'blessed are the peace-makers, for they shall inherit the earth.' Just now England seems willing to compromise, granting Russian sovereignty full recognition in Persia if she will withdraw her troops from northwest Afghanistan; and it is said that this is just the result the Czar has worked for and looked forward to, as the labor of absorbing Persia and assimilating her people will occupy all Russia's energies in southern Asia for the better part of the coming decade.

"In the Far East a similar concession to a peaceful solution is already whispered. Russia expresses a willingness to keep her army out of Peking for the present if her dominion over Manchuria and northern China is duly acknowledged, and she seems determined to bring this recognition about before she finally commits herself to the open-door policy in China.

"If the Czar is successful in this, his pet scheme, the closing year of the nineteenth century promises to bring about the greatest peaceful victory Russia has ever known. But there is many a slip 'twixt the cup and the lip, and little Japan is tiptoeing to reach up and dash the raised goblet from the strong hand of Russia before it is too late. . . .

"The framework of Russia's military advance into Asia is thorough and complete, for her navy in the Far East is practically at the mercy of her enemies. Russia's naval squadron on the Pacific numbers some of the most magnificent war-vessels ever built, battleships each of which if divided amidships would make two thoroughly equipped war-vessels with engines complete. Yet Japan is in no way behind Russia; her navy is being constantly augmented, and many believe that in a brush in Eastern waters it is questionable which side would do the most damage.

"But England enters the situation. Her naval strength in the Far East is usually equal to the representation of all other nations combined.

"Japan and England would probably have the preponderance of naval power on the Pacific, even if the French and German war-vessels in the Far East could be counted as Russia's allies; and what effect the entrance of our Philippine fleet of American war-ships upon the scene is to have on the future, who can say?

"All the naval nations are well represented by war-ships in the Far East to-day. Just how they will pair off in case of war no one can foretell with any degree of certainty, but that war this summer is more than a bare possibility no one doubts, though it is generally believed that, with the military land-backing the Czar can give to his demands, and England's perhaps fortunate (for the peace of the world) imbroglio in South Africa, white-winged Peace will continue to hover over Asia for another year at least, to the inestimable advantage of Russia's military advance."

Opposition in Congress at this late day to the maintenance and extension of the rural free delivery system," says the New York "Mail and Express," "is explainable only on the ground of gross stupidity or intolerable narrowness of vision. Yet such opposition—happily not formidable—has been developed in the House debate on the post-office appropriation bill. And it rests upon the plea that rural free delivery has not been made to 'pay its way.'

"Almost as well argue that we should not maintain or extend our navy unless we are prepared to show that it can pay its way. Value must be gaged by the indirect and ultimate, not the direct and immediate, fruits of any federal policy. Gaged thus, either abandonment or neglect of rural free delivery would be nothing short of criminal deterioration.

"As First Assistant Postmaster-General Heath has pointed out, since March 4, 1897, nearly 100,000 rural homes in all parts of the country have been brought into close touch with the rest of the world by a daily visit of the rural postman, the average route including 750 persons. Who that is not a demagogue or a fossil cares whether the government income parallels the outgo?

"The system is a material factor in building up communities which will in time supply a paying business by the increased interest in the outer world thus engendered. It represents the meeting of a just claim by those whose energies furnish the very keel upon which the ship of state rides—the agriculturists. It is, in its very essence, the truest economy, in that it becomes an agency for raising the average of intelligence throughout the country."

Dogs and Dog-tax At present I am not so fortunate (or otherwise) as to possess a dog. I had one—a fairly good one, too, as dogs go. He was a large, fine specimen of a Newfoundland, good-natured and harmless; yet his appearance was sufficient to keep the tramps off the premises. For this reason he was rather useful, and perhaps paid for his keep, although it costs about as much to board a large dog as to board a man. But he had one fault, and this fault cost him his life. He would frequently wander off at night, going a-courting, I suppose, and not return until broad daylight next morning. Night seems to be the time of temptation for dogs as well as for young and even some older people. This habit of skylarking around all night leads many to rack and ruin. Thus it happened with my noble dog. I have a good friend living within half a mile or so. He keeps a dog himself, and I suppose pays the regulation dog-tax of one dollar a year. But he feels sorry for the other people who have to pay dog-tax, and so he tries to relieve them of the necessity of paying it. A charge of shot with plenty of powder behind it is sufficient for each case if rightly directed from a near point. It settled the case of my dog, and the one dollar I paid last winter will probably be the last regular and lawful dog-tax I shall be called on to pay for some time. I feel that I ought to thank my neighbor for his kind consideration; but I fear that, should I do so, he might take it for sarcasm.

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But whether I own a dog or not, I have to pay dog-tax on a number of them. Some of my neighbors keep them. They go into my corn and potato fields and dig patches of half a rod in diameter completely over, rooting out potatoes and corn, whether simply in play or in burying and uncovering bones, I do not know. This spoils the looks of an otherwise nicely kept field, and it spoils a portion of the crop. So I am forced to pay a pretty good dog-tax on pretty worthless curs. Some of the owners tried hard enough to get out of paying the one dollar a dog; and it was only when the town board (of which I happen to be a member) forced the collector to either collect the tax or shoot the dogs that a large number of dog-owners came down with the cash. A good watch-dog is in its right place on an isolated farm home. People who live in villages and cities do not need dogs for protection, and not for any other purpose that I can think of. But most of them keep dogs anyway. It is said that a poor man keeps one dog, and if very poor he keeps two. I am quite sure that it would not be a loss to the world at large if three out of every four dogs now kept in our cities and villages (and some on our farms, too) were served in the way my dog was served. I would be willing to furnish the powder and shot for that kind neighbor of mine if he wants to relieve me of the dogs that dig up my crops. The town-dog tax is all right, too. A dog that is not worth the one dollar tax is not worth keeping. If all were killed that are not worth the tax we would have just enough dogs left for all reasonable purposes.

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Stray Horses The tax spoken of is not the only one I have to pay on other people's animals. Some neighbor keeps a horse. The village lot, which is the only land he occupies, is not fenced in. The horse is usually tied to a stake or tree with a wash-line. When he gets real hungry he simply pulls on the line till that breaks, and then he wanders off into my orchards, meadows or oat-fields to get his fill. You know, we keep no, or few, road or line fences in this immediate vicinity. Nobody makes a practice of pasturing stock except by tethering. I would not complain very much if I simply had to feed this animal. But I have all sorts of vegetable-patches scattered all over the vicinity. One day that horse went into my patch of Prizetaker onions and was just going to roll in the best part of it when seen and driven out. In short, I am never sure where and what he will get into next, and all protests seem to be of little avail. Well, what can any one do in a case like that? Continue to pay the tax, I suppose.

* * *

Borrowing and Lending I have a great notion to put up a sign on the place with this inscription: "We neither borrow nor lend!" I feel that I cannot afford to continue paying one of the heaviest of all avoidable taxes, that on the borrowing and lending nuisance. I am hardly prepared to state how much this tax costs me a year. I know it is a considerable sum in the aggregate. A pity that no statistics are being taken about this thing in our present census. Of course, somebody reaps the benefit from my losses. Last year, for instance, I bought an extra wheel-hoe. I want to have plenty of such tools, so that I need not change them from a drill to a cultivator or wheel-hoe, or even from any of these to a marker, during the season, when each form is used every day or two. It takes time to make the changes, and time at that season is precious. But the new tool is gone. Somebody came to borrow it late last season, when I had not much use for it, and had my other implements fixed for hoeing, and forgot to return it. He now has a good wheel-hoe, and had the fun of paying for it. In the same way I have lost a step-ladder, a number of common ladders, any amount of spades, shovels, hoes, etc. I try to keep a full assortment of all the best tools needed on the farm and in a market-garden. It is cheaper and far more satisfactory than to have to run to a neighbor to borrow a tool when you need it. For that reason I do not make a practice of borrowing. In the few instances that I borrowed wagons I usually paid heavily for the privilege by making needed repairs. When others come to borrow my wagons or buggy, and they break anything by accident or carelessness, they are liable to bring the article back in a damaged condition, and I have the fun of paying for the repairs. I have my boat in the creek a few rods from the house, and try to keep it in readiness for going out on the Niagara river for a spin or fishing trip whenever the fit takes me. Neighbors' boys come and ask for the use of it for an hour or two, and I have rarely refused it. They take a clean boat, go out fishing, and when they bring the boat back and leave it tied to the dock it is a mass of nastiness. Dead fish, worms, crabs—all half decayed and stinking to heaven—that is what I find all over the inside of the boat, and a lot of mud, weeds, sticks and rubbish and refuse of all sorts besides. So I have put my foot down, and when the boys come again to ask for the boat I say no, with a big N. "Neither a borrower nor a lender be" is indeed a good rule, and I shall try to live up to it a little more closely than I ever did before. The only safe way to do this business is to keep a regular book account, and charge your neighbor the full value of every article he borrows. When he brings it back give him due credit likewise.

* * *

Mildew on Gooseberries A lady wishes to know how to keep gooseberries free from mildew, which always makes the berries unfit for use. Most authorities recommend spraying either with Bordeaux mixture, or, what may be better, with a solution of liver of sulphur. She says that her bushes stand in a rather sunny place. I would try to give them a location on the north side of a fence or building, or in any place where they can have partial shade. Heavy mulching with litter of any kind is always advisable, and is usually effective in keeping the mildew off.

T. Greiner.

SALIENT FARM NOTES

Fuel Under the broad, rich farming lands of central Illinois lie millions of tons of coal, and the actual cost of mining it is but a few cents a bushel, yet through the joint action of miners' unions and operators' combines the price to farmers and small consumers has been raised about four cents a bushel within the past year, with indications of a still further advance in the near future. The operators declare that in acceding to the demand of the miners for shorter hours and larger pay the cost of mining has been so increased that they are compelled to raise the price. On the other hand, the miners contend that the operators were not paying them a fair proportion of the profits, hence their demand for higher wages. And the farmer pays for it all!

In view of the increased price of coal and the probability that it will go still higher, with no corresponding advance in the price of farm products, quite a large number of farmers are seriously considering the planting of the rougher portions of their land to forest-trees, and growing their fuel. As one farmer said recently, "We are never sure of a supply of coal, even at the exorbitant prices the combine sees fit to charge, for whenever the market appears to be weakening the miners strike or the operators order a shut-down until prices stiffen. When there is a strike in our locality we cannot obtain a supply of coal from other mining districts, because the unions will not permit coal to be shipped in. In fact, we are completely at the mercy of a combination that is worse than any trust, and between the upper and the nether millstones we are likely to be ground to abject poverty. But we can beat these cormorants; we can grow our fuel, and that we will do."

* * *

Belgian-hare Fad I want to warn my farmer friends from being "worked" by the Belgian-hare boomers. These gentlemen are pushing this fad at a lively rate just now, and many people will be led into buying breeding stock at large prices, only to lose every penny invested. The workers of this fad tell us in their circulars and other printed matter that the flesh of the Belgian hare is far superior to that of young chicken, and finds ready sale in all leading markets at fifteen to thirty cents a pound, and that thousands of pounds would be taken at those prices if it could be obtained. They say, further, that the skins are worth fifty cents to a dollar each, and are used largely for making robes and clothing. There is not a word of truth in it. The flesh of the Belgian hare is very similar to that of our common rabbit, and there is no greater demand for the former than there is for the latter, as anybody can soon learn if he will ask the marketmen. As to the hides, there is no market for them to speak of. They will not bring enough to pay for caring for them. The whole thing is a fake and should be let alone.

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The Cow-pea is moving northward at a rapid rate. Five years ago it was not known where there are now acres on acres growing. Those who plant it on properly prepared soil, harvest it at the right time, and give it the same care that clover should have, will be pleased with it, provided they plant the variety adapted to their latitude. The tall-growing late varieties are all right for the South, but in latitude thirty-nine and northward I am satisfied that the dwarfer and earlier varieties like the Black are most suitable and will give the best satisfaction. Those who grow cow-peas for hay should keep in mind that they are at their best for hay when the first or lower pods are ripening. After these pods are ripe the lower leaves begin to come off and the stalk becomes hard and tough. Cut as soon as ready, and thereafter handle like clover, and the hay will be first-class. If one has no barn or shed for storing it, a rain-proof covering of some sort should be put on the stack. I have seen farmers try to keep it without such protection, and in every case from one fourth to three fourths was spoiled before midwinter.

Catch Crops Several questions about sowing rape, cow-peas, rye and clover among corn are asked by farmers living in different parts of the country. The success of any "catch crop" sown among corn wholly depends on the amount of moisture the soil contains at the time of seeding and up to the time the growth of the corn ceases. Growing corn requires a great deal of water, and it pumps it out of the soil rapidly. If the rainfall is sufficient to keep the soil fairly moist during the latter half of summer any of the catch crops mentioned will do well if the corn is not so thick as to shade the ground too heavily. It is a waste of seed to sow these things among corn in a dry season. I have seen clover sown in a field of early maturing corn about the middle of July and a most excellent stand secured. The soil was damp at the time the seeding was done, and as the corn ceased to draw on it for moisture soon afterward the clover-plant had every advantage. Those who desire to sow any of these catch crops must be governed by the condition of the soil at the time the seed must be sown. If it contains sufficient moisture to mature the corn crop and leave something for the catch crop, sow. If not, keep the seed.

* * *

Growing Wood-pulp A few days ago I cut a silver poplar which had been planted for ornamental purposes in the spring of 1889, and which had grown nearly eighteen inches in diameter a foot above the ground, and probably contains a cord of wood. The tree became a nuisance where it stood, and so it had to come down. But it made me think of the possibilities of growing such trees for commercial purposes. Poplar is being much used for paper-making. How many years will it take at the present rate of using the native poplars for this purpose alone before the natural supply will be exhausted? Possibly we may be able to find other materials for paper-making, such as corn-stalks, etc., but I would feel pretty safe to predict a ready sale of all poplar wood that one could grow for the next one hundred years. I do not know what price paper-makers have to pay a cord for the wood they use. But think how quickly one could produce a big lot of poplar wood. The tree grows marvelously fast. In ten years from planting you would have quite a good forest, and even before that time much of the wood could be utilized for various purposes, as the trees could be set quite thickly at the start and gradually thinned out. Trees can be cheaply procured, too. I only offer this as a suggestion.

* * *

Keeping Things Tidy It makes one feel good to have everything about the place in neat, tidy "shipshape" all the time; but when there are dozens of things demanding attention and immediate action it is impossible to keep them so. Not long ago the "field correspondent" of an agricultural journal dropped in to see me and look over my surroundings, and he found me up to the neck in work and a hundred jobs needing immediate attention. Of course, I was sorry to have him see so many weeds in the garden, and so many prunings scattered about the orchard, and so many things out of place, but I was doing all possible to keep abreast of the season. As I work about the place I aim to take one thing going and bring another coming, and if one does this his hands will rarely be empty; but for all that, many things will get scattered about, and many jobs will have to wait much longer than we like to have them.

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Flowers Not long ago I overheard one lady ask another how she managed to have so many beautiful flowers on and about her lawn. "Well, I don't know," she replied. "I pick off the dead blossoms, and cut lots of bouquets from them, but to tell the truth, I really don't know much about attending to the plants. Jim [her husband] is constantly tinkering about them. Every evening he is out there hoeing and raking and clipping until dark. He's a great man for flowers, Jim is, and he seems to understand how to manage them nicely."

Fred Grundy.

OUR FARM

FARM THEORY AND PRACTICE

Concerning Dogs.—An immense army of dogs is supported by the country-folk of this country. Town and city people own another army of dogs, but the most of the animals are under control and do not interest us directly. There is continued discussion to determine the rights and value of our country dogs. The latter is an unknown quantity, and it should not be a prominent factor in the agitation, anyway. A man has a legal right to keep a dog that appears to others to be entirely worthless. The dog may seem to its owner to pay its way in companionship, and so long as the owner maintains him and keeps him upon his own property the value of the animal is not a matter concerning which the public has any right to interest itself. It is a private matter entirely. The economist may discuss the results of feeding an army of animals that do not earn their food, but the individual has a right to provide for his enjoyment any luxuries that he is able to pay for. The question should be about the control of dogs, not about their value. Each individual may decide for himself whether he wants to labor to maintain a dog or not, and whether his dog pays for his board and care in work or affection, but the public has a right to demand that the dog have no greater degree of freedom on the highway or on a neighbor's land than any other kind of live stock belonging to the dog's owner. The question is wholly one of restraint.

* * *

Restraint of Live Stock.—Public sentiment in favor of closer restraint of stock of any kind is a thing of slow growth. It is cheaper and easier to let stock get their own living upon the commons than in fenced fields belonging to the owner. It is only when population increases to the point of crowding and the commons become limited in area that public sentiment compels the owner to keep his cattle and hogs upon his own land. Usually he accepts the new conditions under protest. Poultry and dogs are the last to come under any form of restraint that is due to public sentiment created by increase of population. Where farms are small and crops are valuable poultry is now kept upon its owner's property, while in sections having large farms given much to grazing the sentiment of the neighborhood still permits to this class of stock its liberty. The dog is last to come under restraint, both on account of the affection of its owner and the dog's presumed usefulness when it has its liberty on the place. But it cannot be an exception to the rule governing all forms of live property. In densely populated districts it no longer is a lawless wanderer, but travels with its owner or stays at home. Where there are dogs there is always danger to people and to stock. The owner of a dog should be required to see to it that his dog has absolutely no chance to bite a child or run a sheep that is not on the owner's land. That means the same constant control that is exercised over all other farm stock. If the dog is vicious, of course there should be even closer restraint; but in no case has a dog a right to his freedom on property that does not belong to his owner. If a man permits it, there should be law, officer and public sentiment to correct such abuse of the public's rights, as there is in the case of other stock.

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Hessian Fly.—The loss from attacks of this insect is enormous this year. Evidences of damage have grown greater as harvest approached. The most discouraging feature of it all is that much late-seeded wheat has fared as badly as the early seeded. Our scientists have believed that the ravages of the fly could be escaped by seeding after the dates named by them, observation having shown that the brood of flies lives only a few days after its appearance, and if there is no young wheat-plants in sight no deposition of eggs can be made where the young can live. And so we waited for the safe date, having the ground in fine condition, so that the wheat-plants could get as well rooted as possible before winter. But matters have gone wrong. It now appears that Nature provides for its insect world in a more wonderful manner than many can realize. When the autumn is dry, so that wheat in an ordinary way would not sprout, the same dry weather that would prevent wheat growth retards the coming of the fly. The plan of our scientists is all right for an ordinary season, it is believed. In a seasonable year the fly would appear on time, and if the farmer has held off from seeding all works well; but in a dry fall the fly is as late as the wheat, and the mischief is done. Many farmers will be discouraged by this year's failure to escape the fly by late seeding, but they would do well to stick to this plan another year. Ordinarily the fly comes at the time named by our experiment stations, and ordinarily we may hope to save the most of our wheat from it by waiting. This year we have failed, and the cause assigned seems reasonable. But one failure should not drive us back to early seeding, as that is nearly sure to be caught by the fly.

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Perennial Weeds.—It is the perennial weeds that discourage the owner of permanent pasture-land. He knows that if he keeps the annual or biennial from seeding he is master of the situation, but the weeds that grow from the same root-stock year after year, or from underground stems, seem invincible. But considerable experience teaches that persistent fighting will kill out the most of our perennials—not all of them in some soils, but in the great majority of cases. This is eminently true of the bushes, briers, thistles and other large stuff that make unsightly half the area devoted to pasture on the mountain-sides and hillsides west of the Alleghenies. A few years of conscientious work with the hoe and scythe will give the mastery. Some plants will continue to appear, but they are controlled with little expense after the first few years. If land is worth fencing for pasture it is worth keeping clean of bushes, briers and such large stuff. And in the case of common perennial weeds there is a degree of control to be obtained in most cases. Take the steel-weed, for example. It is one of the worst, sending out branches from the stub left by the scythe, and making seed profusely. But two mowings a year tells upon it. Vitality is lost, the sod encroaches upon it, and in time one sees that the growth diminishes. Cutting off the top and crowding with blue-grass dwarfs most kinds of weeds, and the only course for the owner of permanent pasture-land is to keep up the fight with scythe and hoe, regardless of the reputation of the weed. A few kinds of weeds will withstand all attacks, but the great majority will finally give up the struggle.

David.

A WORD ABOUT WEEDS

We have been assured by some of the professors of agricultural experiment stations that weeds are a blessing in disguise. But most farmers regard weeds more seriously. They wish they could exterminate them, root and branches; yet one may not infrequently see a yard full of burdocks, wild carrots and other equally undesirable friends. To say the least, there is no use in having these weeds encroach upon our territory.

If we wish to make war upon them successfully, first of all things we ought to learn their nature, just the same as though we wanted to grow them. Many weeds which we dread are biennials. The first season, coming from the seed, they only make a fair-sized plant without going to seed. The following season they send up seed-stalks, bloom, ripen the seed and then die. The majority of these plants form carrot-shaped roots and cannot produce a new plant from a part of the root. Burdock, yellow dock, wild parsnip and carrot, blue thistle and others belong to this class. To kill them it is but necessary to cut off the upper portion of the root about two inches below the surface of the ground.

A good way to deal with these weeds is to visit the places infested with them about this time of the year, right after a rain, when the ground is soft, and with a sharp little pickax or a mattock cut them off below the surface. On examination of the cut-off portion one can quickly see whether the plant has been cut off low enough. It may be necessary to go over the same ground year after year, for some of the seed lies in and on top of the ground for years before germinating; but at last we will succeed in clearing our land and the fence-corners of these obnoxious weeds.

There are sections of the United States where the blue thistle seems to have taken possession of the meadows and pastures in a frightful manner. Where this is the case, cutting the plants off with a burdock-hoe is out of the question. A sensible short rotation will soon rid such fields. The wild carrot is regarded hereabouts as the worst pest, but even this cannot get a lasting footing where a short rotation is practised. In addition to this, the grass must be cut early and twice, or oftener if necessary. Fields left in grass for years, till they scarcely cut half a ton of hay to the acre, should not be expected to be free from weeds. When the grass does not occupy the land Nature provides that something else will.

By far the worst weeds we have to contend with are those increasing from the root as well as the seed. The Canada thistle is one of them. Plowing badly infested fields while the thistle is in full bloom, plowing under every fragment of the plants, and sowing buckwheat after will effectually subdue the worst field. I have cleared fields by one plowing at the right time. Merely cutting the thistles while in bloom amounts to nothing, as far as killing the mother-plant is concerned.

The milkweed is the most tenacious weed I know of, and I have not discovered any practical method to subdue it. The quack-grass, increasing from the seed and by the root, a plant also known under many other names in different sections of the country, yields to plowing and constant irritation with a sharp cultivator. I have rid fields completely in one season by this course. Weeds springing from the seed annually and perfecting seeds the same season will have to be subdued by timely cultivation.

F. Greiner.

THE MEADOW AFTER HAYING

The period between haying and the annual fall rains is one of crisis for the meadow. The protecting grass has been removed and the sun beats down upon the naked roots with all the heat of late summer. Now, if ever, they will be weakened and lose their vitality to resist the frosts of winter. What shall we do to prevent this deterioration?

Here is the result of an experiment of my own. The season of 1899 with us in south-central New York was very dry. For several weeks no rain whatever fell. Our meadows lay in the boiling-hot sun, burning up. The leaves of the plants were shriveled and brown. It seemed to me they must be nearly all killed by the heat if something was not done to save them. It so happened that I had under my barn-shed quite a pile of barn-yard fertilizer which I had not needed on my plowed crops the previous spring. This I now drew out and scattered over my meadows. Part of the manure was from the horse-stables, and contained considerable straw. It was a question whether this would be rotted before the next year's hay crop came on, or whether it would be raked in with the grass. But I took the chances of this and scattered it on with the rest. I am now convinced that the straw had great value as a source of protection to the grass-roots.

I was very sure that I could see good effects from my work before winter set in last fall. When I would raise the flakes of straw from the ground I would find the tufts of grass fresh and green, affording a marked contrast to the places which did not happen to have been covered when the manure was drawn out.

No cattle are ever allowed to run on my meadows at any season of the year. I feel sure that the practice of many farmers in this respect is more or less disastrous, according to the nature of the soil and other conditions. The after-feed has no doubt a good value, and there is a strong temptation to take advantage of it. But what is gained in increased flow of milk this year will undoubtedly be more than lost in hay another year. The aftermath falling back over the roots shades them and affords a natural protection from frosts in winter.

But if the result of my experiment was noticeable last fall, it has been much more so this summer. Most of the farmers of this section have been complaining that their meadows were almost ruined by the drought of last summer and the following open winter. The cut of grass could not help being light. But my meadows have been fully as good as in average years in the past. The manure spread last fall is yet bringing good returns. I believe I shall see beneficial results from this top-dressing for several years to come.

As to the time of applying top-dressing I would say that in ordinary years better returns may be gained by applying the fertilizer late in the fall. Then not nearly so much will be dissolved by the elements and be lost in the air. It is no doubt true that the sun and rain destroy a large part of the goodness of the manure spread earlier in the season. But when there is a severe dry spell, such as I have described, I think it is best to apply whatever manure we have early after haying.

E. L. Vincent.

THE WASHING OF THE SOIL

The wasting of the richness of the soil by dissolving and washing away is no small matter to the farmer, and on every farm should be considered. In a season of many washing rains the soil carried away in some portions of a field is limited only by the depth to which it has been cultivated. Corn ground is probably the worst of all fields, as the soil is kept loose for three months in the year, and there is no soil-binding roots to prevent erosion during the remainder of the season.

This is a problem that is claiming some attention, and will claim the attention of the progressive farmer of the future. Few farms can stand the constant drain of years without materially lessening their productiveness. The richest portion of the soil is the portion carried away, and the application of fertilizers can hardly keep up the loss.

In a field where corn or other such cultivated crop is grown some soil-binding grass or grain can be sown after the field has been cultivated over the last time. Rye is a good crop, as it will furnish an excellent fall and winter pasture after the corn crop has been gathered. It was to protect the soil from the fall and winter and spring rains. Even if the grain is not left to mature the next season the pasturage will pay for the expense of putting in.

In side-hill fields it is the best policy to raise some crop that will act as a soil-binder. This item is of enough importance to be given thoughtful attention by every farmer.

J. L. Irwin.

DOG-VISITING

The owner of a beautiful homestead complains of the habit many people have of taking dogs with them when they make calls. If there is anything I hate it is to see a neighbor coming in with a great untrained dog at his heels. The creature is at once a nuisance—running everywhere, dashing into flower-beds, and smashing something that I have worked over all summer. Dog-visiting is an outrage. I would as soon one would bring a loose cow or a flock of geese. If possible, I get the dog promptly shut up; if not, the visit of both man and beast is shortened as much as I am able to bring about—and I generally do it. This is not a matter of light import, however it may seem to the man who owns the dog. A person who is not sensitive enough to comprehend it deserves to be treated with very little consideration.

E. P. Powell.

NOTES FROM GARDEN AND FIELD

THE WINTER MELON.—Last year I got from some source seed of the so-called winter melon, but I did not succeed in raising the fruit of it. I forgot what the trouble was. In fact, I had little faith in the thing, and therefore did not take proper care of it. From the description I have read of it since, and especially from some station reports, I was more anxious this year to give it a trial, and therefore glad when I received a package of seed from the Department of Agriculture in Washington. In fact, it was the only seed-packet in the lot which I valued at all. It was planted in good style, and I will say that the seed germinated promptly and the plants appeared to have much greater vigor and thrift than those of any other kind in the patch. But how the bugs went for them! I have had very few cucumber-beetles on any of my vines this year so far. All the more I was astonished to find, when I visited my few hills of winter melons, that every plant was riddled and most of them entirely killed to the ground. The prompt application of a good lot of tobacco-dust saved one of the already damaged plants, and I am in hopes to keep it alive and raise fruit from it.

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THE CUCUMBER-BEETLE.—It seems strange to me how these dreaded beetles come and go. One time I travel all over the patch without finding even a trace of one. Then a few hours afterward, coming through the patch again, the beetles are found there in swarms, infesting every hill and almost every plant in every hill. That means getting the skates on. A lot of tobacco-dust is thrown on the hills and well shaken through the vines, so as to cover them all over, above and underneath, and when I make another trip through the patch soon after not a beetle may be there, even on a hill that had been accidentally left untreated. Where these pests go to all at once I am at a loss to understand. If there were lots of snakes or toads around I would believe them to be the cause of the beetles' disappearance. But this year I seldom see either snake or toad. In general it must be said that we have fewer insect enemies this year than have been troubling us in previous years. There seems to be but few potato-bugs, few cabbage-maggots, few caterpillars. I gladly get along very well without them. Their absence will not be seriously felt.

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THE ONION-MAGGOT.—Almost every year a few maggots have been found in my onion-patches, but I have never had to report a serious loss from this source. This year I moved the onions to an entirely new patch, hundreds of rods away from where I had them for the past ten years, and they are doing very much better in their new location than for some years, and no sign of maggot is to be found on them. A few rows only were planted in the old patch, merely to have them as near as possible to the kitchen door, as they were intended for home consumption only. But here the maggots have concentrated on them and actually ruined three fourths of the plants. In some of the bulbs I find half a dozen or more of the great fat grubs. Of course, there is no way of saving the onions once attacked that I know of. The only thing I can do (and I should do) is to pull up every onion that by its yellow color or dying down gives indications of being infested with maggots, and carry it out of the patch to a convenient place where it can be burned up or sprayed with kerosene, or handed over to little chicks. That will reduce the brood for another season, anyway. But the experience shows me the benefits from occasional change of locations of the onion-patch, and likewise, perhaps, of cabbages, etc.

* * *

VEGETABLES IN FISH-POND.—A reader tells me that he has an old fish-pond which has been under water for ten or more years. The mud in the bottom is about two feet deep. Now he proposes to draw the water out and plant the bottom with celery. There is a never-failing spring just above it, affording a fine chance for irrigation. I know that in some parts of Germany and Hungary, where the culture of carp in artificial ponds is quite an industry, these ponds in some instances are so constructed that the water, carp and all can be drawn off into other ponds, and the bottom of the drained pond planted in carrots, beets or other root crops, these crops to be left for the fish to feed on after the water has been again brought back or the pond is allowed to fill up again. The little Cayuga creek, which passes within a few rods from where I write this, seems to be alive with carp, some of them weighing fifteen or twenty pounds apiece, although the first of them only made their appearance in this creek (probably escaped from some pond) not more than five or six years ago. They are sometimes caught with hook and line, more frequently perhaps dipped up with scoop-nets or caught in hoop-nets, and in cold weather I have eaten an occasional mess of them. Some people around here are glad enough to get these fish for their table at any time of the year. But if other folks did not think more of the carp as a food fish than I do I believe they would consider it more profitable to drain their ponds, and raise garden stuff in the ground thus laid dry, than to grow German carp. I should surely try celery on a well-drained pond bottom, especially if a never-failing spring above it gives such splendid opportunity for irrigation. Our friend wants to know how soon the ground will be fit for planting after the water is drained off. I should have tried to let the water off in the fall, and to expose the soil of the bottom to the action of frost. But as that has not been done, I believe that the land can be used and will produce fine crops under good treatment just as soon as the soil can be worked and brought in the same mechanical condition as any garden land should be in. In other words, it is ready for planting when the surface, eight or more inches in depth, has been thoroughly pulverized. I cannot tell whether it is rich enough to produce a crop without additional applications. The only safe way is to use plant-foods, especially rotted stable manure, quite freely. Concentrated fertilizers alone may do it. Wood ashes, leached or unleached, but in larger quantities if leached, will most likely give good results in such cases. I would also expect good crops of other garden vegetables, especially onions, cabbage, cauliflower, radishes, roots, etc.

T. GREINER.

INQUIRIES ANSWERED

BY T. GREINER

Planting Raspberries.—M. J., Grantville, Kan., asks when raspberries should be set out. Spring is perhaps as good a time as any in which to set them out, although fall will do fairly well enough.

Sale for Belgian-hare Skins.—J. A. L., San Jose, Cal., writes: "Please tell me where I can find sale for Belgian-hare pelts in the United States."

REPLY:—Who can tell?

Truffles.—G. H. B., Ralls county, Mo., asks if any reader of the FARM AND FIRESIDE can tell how to find truffles, the choice edible fungus which grows under the surface of the ground. The professional truffle-hunters of Europe used to employ trained pigs or dogs to locate these choice fungi. I do not know whether truffles are found here or not. Who can tell us about it?

Coffee-berry—Lice on Carnations.—R. E. S., Royalton, Vt., writes: "Please give directions for the culture of the new coffee-berry, or soy-bean.——What will kill lice on carnations?"

REPLY:—Some information on soy-beans has already been given in an earlier issue. For fodder sow broadcast or in drills with a grain-drill. To grow the beans, plant them as you would any bean.——For lice on plants, fumigate with tobacco-smoke or syringe with strong tobacco-tea.

Elevating a Rhubarb Plantation.—M. L., Woodside, Md., wants to know if he can elevate rhubarb-plants that have been set too low. I think they will have a tendency to come up nearer to the surface, anyway. But there is nothing to prevent you from taking up the plants and setting them the way they should stand. The land must be thoroughly drained for this crop.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

Apple-twig Borer.—F. E. R., Nepesta, Col., writes: "I send you under separate cover a box containing five specimens of a bug that is found in the canes of grape-vines. The bugs enter at the bud and burrow along the stem. They seem to kill the vines. The bugs seem to stay in the vines summer and winter. I saw the bugs last spring for the first time. Can you tell me what they are? Are they likely to destroy the vines? Do you know of any remedy? If so, what is it, and the time to apply it?"

REPLY:—The insect mentioned above is known to entomologists as the apple-twig borer (Amphicerus bicomtatus, Say). This beetle is cylindrical, about one third of an inch in length, of a dark chestnut-brown color or above, and black beneath. This beetle bores into small apple-twigs in early spring, entering close to a bud and making a channel several inches in length, apparent to obtain both food and shelter. The canes of grapes are invaded in similar places, and are killed in consequence. Twigs of pears and cherries are also used for this purpose. Both sexes make such tunnels, and they are occasionally found in them during the middle of the winter, as well as in summer. They are usually found in the tunnels with the head downward. In this manner they sometimes work during the summer months, and cause the invaded twigs to die. As a general rule, however, the beetles leave their burrows during the summer. They now deposit their eggs in the dead or dying roots of the green-brier (Smilax spec) or in the dead shoots of the grape, and the pupae remain in such places until the full-fledged beetles are formed. The insect has not been common enough in the past to inflict much damage, but it is now on the increase and liable to do greater damage. The remedy is to gather and burn the twigs in which they are found, and no greenbriers should be allowed to grow near orchards or vineyards. Wild grape-vines harboring such beetles should also be removed.

The Rose-chafer, or Rose-bug.—F. A. W., Lost River, W. Va. The rose-bugs, where numerous, are among our most destructive insect enemies. In some sections of our country they appear to be increasing in numbers from year to year, visiting orchards, vineyards and gardens annually in June in such numbers as to make great havoc with grapes and eating almost every kind of fruit and flowers. When they visit us in swarms we are left almost helpless or with a big job on our hands to head them off. The applications of insecticides seem to be of very little use, as no contact of poison kills them, and the arsenites and other stomach poisons of such strength as to be safely used on the plants act too slowly, for the reason that only two or three days suffice to ruin a vineyard. They drop readily from the vines upon giving them a sudden jar, hence one of the best methods of combating them is to provide a funnel or umbrella shaped collector that can be held underneath the vines and shaking or jarring them so that they will fall into it. The collector can be made of smooth or glazed cloth fastened to a hoop, with a handle on one side, and so made that as the beetles fall into it they will roll to the center, where a hole is left for them to drop through into a small pail or other vessel containing kerosene or boiling-hot water, which will kill them. This should be begun at their first appearance, and followed up daily, and perhaps two or three times a day, until they disappear or until the fruit is well set. I have never had but one serious fight with them, but came out of it the victor, and have not been troubled with them since. The remedy I used was hot water, jarring them into it; but as water cools so quickly, kerosene would serve the purpose better. On apple-trees and roses I had very good success from syringing them forcibly with water at a temperature of one hundred and thirty-two degrees, but that is not practised in a large vineyard or orchard. Where they appear only in moderate numbers, dusting the grape-vines with perfectly dry, fine, air-slaked lime to which a little flour of sulphur has been added seems to be distasteful to them, and often saves the fruit. The larvae of the insect feed in light land on the roots of grass and other plants, and pupate in the spring shortly before they change to beetles, and plowing up and harrowing sod known to be infested with them at this time destroys considerable numbers of them.

Apricots Dropping.—J. D., Attica, Kan. The fruit of the apricot frequently falls off when half grown from being stung by the plum weevil, or curculio (Conotrachelus nenuphar), or by the plum-gouger (Cocotorus scutellarus), a near-allied insect, which of late years is becoming very plentiful in portions of the West, and is even more destructive than the curculio. The larvae of both insects feed upon the flesh of the fruit, and the latter also upon the kernel. The early setting of this fruit and the smooth skin seem to make it peculiarly attractive for depositing their eggs, and a larger proportion of the eggs hatch out and more of the larvae come to maturity than where laid in the plum. As the damage for this season is already done, nothing can be done to save the present crop of fruit, but precautionary measures should be taken to as far as possible destroy the larvae and prevent their doing like damage another year. To most effectually accomplish this all of the fallen fruit should be gathered up and burned, or otherwise destroyed, and all fruits containing larvae still hanging upon the tree should be picked off and likewise destroyed. This process will greatly reduce the numbers that would come to maturity, but they cannot be exterminated in a single year, as some will have escaped. When the larva has reached its full size it leaves the fruit and goes into the earth beneath the tree to pupate, and soon changes to an adult insect. As soon as able to move the freshly issued beetles search for hibernating quarters, and are not again seen in the orchard until the next spring. The beetles hibernate among all sorts of rubbish, but prefer accumulated leaves and dry mulching. Therefore, a fall cleaning up and burning of the rubbish destroy considerable numbers of them. Early in spring, before the buds are open, they visit the trees and feed upon the tender bark and buds, and later they eat the leaves and flowers. During this period considerable numbers of them can be killed by spraying the trees with arsenical poisons before the leaves and flowers appear; but spraying after the fruit has set is of no benefit whatever, and often injurious, as the foliage is easily damaged by the poisons. Jarring the trees every day from the time they are budded until the insects have ceased to sting the fruit, or while any are caught, and catching them on sheets spread under the trees, and killing them immediately, is, after all, the most effectual method of saving the fruit and exterminating the beetle. After the eggs are deposited in the fruit no poisonous applications can reach them.

Several Questions.—M. L., Woodside, Md., writes: "1. In one of your articles you mention the burning over of strawberry-beds. Do I understand that this can be done to a growing bed without injury? 2. How can a strawberry-bed not properly fertilized at setting out (last fall), but bearing well, be fertilized for next year? 3. I had a fine growth of red raspberries last year that were injured by a severe hail-storm, and after that the bushes began to die. This year many that survived and fruited have died before ripening. The canes appear to have a sort of dry rot generally extending from hail injuries. Two or three bushes that I took up last year appeared to have a mold on the roots, and were dead or dying."

REPLY:—1. The burning over of the growing strawberry-bed is perfectly safe where all conditions are favorable. The soil must not be dead dry about the roots, any mulching that would hold fire must be loosened up and dry, and the mowings should be dry enough to burn freely, and a time should be chosen when there is sufficient wind to carry the fire over the bed quickly, otherwise the roots may be injured. Equally as good a method of renewing the strawberry-bed, but not as expeditious and requiring more labor, is the mowing over the beds immediately after the last picking, raking off and burning of the mowings and surplus mulching, then applying a dressing of well-rotted manure and plowing between the rows, narrowing them down to from eight to twelve inches, throwing the furrow away from the row, then going over these plowed spaces with a fine-toothed cultivator until the space is leveled, and again a few days later, to keep the surface mellow, so that the runners may root readily, and to destroy any weeds that may start. Where the old beds have in them sorrel, white clover, wire-grass or perennial weeds it is best to use the cultivator every week, narrowing up the space so that the runners will only be allowed to root over a space of one foot or less each side of the old row that was left. But where the bed is comparatively free from weeds the runners may be encouraged to run over and form plants on the entire plowed spaces if the surface is kept mellow and weeds kept down with hoe or rake; and after these spaces are filled with new plants the old rows can be taken out to make new paths for the pickers to work in. By this method I have known a strawberry-bed to be kept in very good condition for several years. 2. Apply to the spaces between the rows good barn-yard manure, or a compost of manure and muck, and cultivate or plow, to mix it with the soil. Good results are also obtained by mulching in the fall with stable manure. 3. A severe hail-storm occurring during the growing season, especially near the middle of it, before the canes had begun to ripen, would not only injure them for fruiting the following year, but would also injuriously affect the vitality of the roots, so that the fruit would not come to maturity. Also the moldy appearance of the plants taken up is evidence that injury has culminated in a diseased condition, or that they are infused with root-lice. In either case the plantation can hardly be restored to normal health. If the roots were not diseased or greatly injured, the better plan to have adopted would have been to have mowed off the canes in early spring, fertilized, plowed and cultivated between the rows, raising canes for next year's fruiting.

HOW FARMERS WASTE INFLUENCE

I have just been reading a report of the New York Farmers' Congress, held recently in Albany, and the enthusiastic correspondent says in the introduction: "This congress was organized for the purpose of securing needed legislation for farmers, and the farmers should support it, for when their demands are presented to legislators by large organizations they will be considered." Well, perhaps the correspondent is not too optimistic; he only says "considered," and leaves a margin for other influeuces possibly more potent when it comes to final action or non-action.

But what is the honest legislator to do when the demands of the farmer come to him in so confusing—not to say contradictory—a way that he cannot tell exactly what is wanted? If farmers' organizations expect to have their petitions received with the respect due the united demand of the most useful and powerful class of American citizens they must discriminate carefully as to whom they permit to be their spokesmen, and must weigh with good judgment every utterance which is to go before the public as official.

A few months ago a greater body than the New York Congress—the National Farmers' Congress—met in Boston, and near the close of the session adopted resolutions urging Congress to enact a law subsidizing American shipping and ship-building. The bill which was unanimously opposed by Congress was not that which went to the Senate, but the original subsidy bill, which has been modified out of all resemblance to its former self upon the demands of Western farmers acting through their representatives—a bill of which a Washington dispatch to the New York "Post" said, on February 7th: "The feeling of Western members of the House against the shipping subsidy bill is growing stronger every day, and it may now be said with safety that the whole Minnesota delegation, half the Michigan and half the Wisconsin delegations are bound to vote against it in its present form, or unless it be amended so as to cover several important points."

It is not often that I follow with close attention the progress of bills affecting party interests chiefly, although in a quiet way I am a party man of no feeble convictions, nor those advocated by great commercial or industrial bodies, although I well know that no important measure can be without influence for good or evil upon the humblest member of the body politic. The sphere of my study—the farm, the garden, the orchard, the forest—is large enough to occupy pretty much all my attention. Other matters have their expert advocates and equally expert opponents. There will be lots of discussion by persons who know what they are talking about, and who will give accurate information if it serves their purpose. The farmer or student of agriculture may as well stick to subjects he thinks he understands.

But this bill I have watched all through its devious windings through Congressional committee and various newspapers, simply because early in its career it had connected itself in some mysterious way with the American farmer. The resolutions of indorsement were not introduced into the Farmers' Congress by a recognized authority in agriculture, nor by a known friend of the farmer, but by a paid representative of the shipping and ship-building interests, who is not supposed to care for the farmer except as he can use him in influencing state and national legislation to the advantage of his clients. The only approach to agriculture in the resolutions adopted by the congress is in the preamble, where one of the purposes of the proposed subsidy is said to be "the enlargement of foreign markets for our surplus products," which sounds well, but is nonsense.

The National Grange, I believe, several smaller agricultural societies and millions of farmers through their representatives have opposed this bill, have caused its modification and may defeat it. But what are the unfortunate congressmen to do, each of whom has in his possession a beautifully printed copy (the farmers did not pay the printers' bill or the postage) of preamble and resolutions, demanding in the name of the united farmers of America that they pass the shipping subsidy bill, and that they pass it unshorn of one of its original features?

I do not propose saying one word about the wisdom or unwisdom of passing this bill. I only use it as a text to preach a sermon to the farmer in convention. The typical victim of the bunco steerer, the lightning-rod man and others of their ilk selected by the newspaper funny man is the farmer. There will seem to be some justice in the selection if the aggregated farmers of the country can be induced to drop for the time their own pressing interests and plead for those of the ship-builder and ship-owner—a body of men who have never shown any lack of ability to take care of themselves.

C. S. Cushman.

CORRESPONDENCE

From Washington.—I have been in this state eleven years, and have bettered my circumstances a little in that time. A laboring man young and healthy may do quite well here, but it is a pitiful sight to see middle-aged folks who have sold a comfortable home away off East in a better farming country than this ever will be roughing it in this wild West. I have seen men who brought money and grown boys and girls out here working as section-hands at $1.25 a day. I have known men who sold comfortable little homes in Michigan working in Tacoma for $1 a day, and boarding themselves. A young man who is single can come and see the West, and if not suited can get back home again; but my advice to the head of a family is, put not too much dependence in advertisements, and remember the real-estate men have an object in advertising certain localities.

Little Rock, Wash. W. A.

From Nebraska.—Boyd county is a good stock country. Horses, cattle, sheep and hogs are in good condition. There has been a goodly number of cattle shipped into Boyd county to be fed on our surplus corn. The local feeding demand has made a market for thousands of bushels of corn that went from the farm direct to the feed-yards in place of the speculator's corn-crib at the railroad. Farmers are improving their stock, having full-blooded Polled Angus and Herefords. Real estate has been changing hands quite lively for the past six months. Settlers from the Eastern states are tired of paying exorbitant rents, and are taking advantage of the opportunity to get cheap homes in Boyd county. Choice farms are selling at from $6 to $12 an acre; unimproved from $3 to $6. This is a very healthful country. It is well watered. There are some springs, but water is usually found at a depth of about twenty-five feet. J. P. R.

Mankato, Neb.

From North Dakota.—Our climate is delightful. There are very few excessively hot days in summer, and the nights are always cool, so one can always enjoy sound, refreshing sleep. While the winters are usually long and cold, they are not nearly so bad as they are represented. Nelson county is a rolling prairie, very desirable for diversified farming. It is a good country for live stock. The principal crops are wheat, flax, oats, barley, rye and spelt; and we raise the finest potatoes on earth. Yields an acre: Wheat, ten to forty bushels; flax, seven to twenty; oats, thirty to one hundred: barley, thirty; rye, twenty-five; spelt, fifty to one hundred, and potatoes from one hundred to four hundred. The state has plenty of coal, which sells at from $1.50 to $3.50 a ton, according to the distance from the mines. The people here are intelligent, industrious and progressive, and are great workers in educational and church matters. Farm-laborers receive $25 a month by the month, and from $1 to $2 a day by the day, board included. The price of land is rapidly increasing. Two years ago land sold at from $2 to $6 an acre. The same land to-day would easily bring from $7 to $12 an acre, and in five years will no doubt sell at from $20 to $30 an acre. If you are inclined to be lazy don't come here, because you will have to work in order to make a living here as well as in any other place on God's footstool. But if you are honest, sober and industrious, and have got $1,000 or more to invest, I believe that you can make a good living here as easily as anywhere else. We especially desire families with marriageable daughters, as they are a very scarce article here and are much in demand.

Crozier, N. D. J. W. G.

From Nebraska.—The track-laying machine has completed the rail-laying to within twenty miles of Gering. There is a track-laying crew, a telegraph crew and a fencing crew, in all about two hundred workmen, and a boarding-train with cooks, dining-room and sleeping-cars of twenty-five to thirty cars in all. They complete every detail as they go. My many correspondents from my article in the Farm and Fireside who wish to "come in on the ground floor" had better make ready at once and avoid the rush. While in Iowa last October I noticed great prosperity on every hand, and in every town all were busy. One man whom my brother called out to pick apples said, in my presence, "These confounded good times are playing smash with things. Why, I can make $2.40 a day picking apples, or potatoes, either one, and can give work to as many men as I can hire at $25 a month, for I have sixteen jobs to one I can do." The farmers in Iowa are rich, live in large, two-story "L's" with plate-glass windows, and lace curtains and pianos and organs in every house, and drive to town in regal style. Many were boys either poor or in moderate circumstances when I left there fifteen years ago, and have made every cent by hard work and economy, and ability not above the average farmer's. Tell me there is nothing in farming! It is all bosh! Why, even from my seat in the parlor-chair car I could plainly see the smile of joyous prosperity in each farmer's dooryard all through Nebraska, and as soon as we crossed the Missouri river it became boisterous. But, as I told my brothers, if you are rich here, we can beat you over in the Platte valleys of Nebraska, where on the nutritious ranges we can raise a steer ready for market at a cost of from $2 to $5, while here it costs you $25. A. V. F.

Gering, Neb.

From California.—Butte county is in the northern citrus belts of California, in the Sierra foot-hills, one hundred and fifty miles from San Francisco. The soil is a red clay on a slate bed-rock, except the low hills next to the Sacramento valley, which are gravelly and underlaid with hard-pan. The climate is mild, especially in winter. Ice one fourth of an inch in thickness is very rare. The dry season extends from June 1st to September 15th. During that time we seldom have any rain, and the thermometer ranges from eighty-five degrees to one hundred and ten degrees. Oranges, olives, lemons, figs, pomegranates, almonds, apricots and all common fruits grow here and do well, especially on the red land. Three hundred car-loads of oranges were shipped from this county a year ago. Oranges sell at from $1.50 to $4 a box (of seventy pounds); olives, from 2½ to 4 cents a pound; figs, dried, 3½ cents; almonds, 10 cents; apricots, from 2 to 4 cents; pomegranates, 2 cents; fancy dried peaches, 7 cents; dried pears and plums, 6 cents. All fruit-trees and gardens must be irrigated during the dry season to do well. Grapes require very little water, and in some locations they produce good crops without any irrigation. Most all the unimproved land here is covered with scrubby oaks and brush, and can be bought for from $10 to $30 an acre, according to quality and location. Land set out to fruit-trees is held from $300 to $1,000 an acre, according to age and condition of trees. Irrigating-water costs 10 cents a miner's inch for twenty-four hours. The water for irrigating an orchard of ten acres will cost about $25 for the season. Oroville is the county-seat of Butte county, and is the terminus of a branch railroad from the Southern Pacific at Marysville, a distance of twenty-eight miles. Butte county produced a great deal of gold in early days, and there are still some good paying mines near Oroville and Forbestown. J. E. R.

Wyandotte, Cal.

From Washington.—I have lived in the western part of the state for fifteen years. There has been no decided effort made to raise field-corn for a regular crop, because it is not used here as it is in the Eastern states; but sweet-corn, for which there is a good demand, does exceedingly well. This is an important hop-producing country, though they are not as extensively raised as formerly, owing to the ravages of the hop-lice, which a few years ago became so bad that many of the heaviest producers went out of the business; but those who could afford to risk loss of crop now have the lice so well under control that last year the crop was very good. Wheat and oats do remarkably well. All kinds of grasses and clover thrive luxuriantly; potatoes, rutabagas and all varieties of root crops are very profitable. True, we have a great deal of rain during the winter months, from October to February or March, but old settlers pay little attention, for they prepare for it. Some winters we have a heavy fall of snow; but the climate is very temperate, never very cold in winter nor very warm in summer. We neither freeze up nor blow away. Our summers are simply glorious. Land varies in price according to locality. Here in Mason county there is a good deal of land for sale, some of it very cheap, most of it well adapted to farming. Work is plentiful, wages good and men scarce. What we need most is wide-awake, progressive men, some extra cash, and some experience in stump-pulling; we have no room for the man who stands on the street-corners with his hands in his pockets and abuses his neighbors and curses the country and the administration. I live on Hoods canal, about eighty miles from Seattle by water and thirty by land, in a heavily timbered part of the country, and neither logging-camps nor sawmills shut down unless for some unusual reason. Of course, the camps have to stop when we get a big snow, otherwise their only stops are Fourth of July and the holidays. R. W.

Harrison, Wash.

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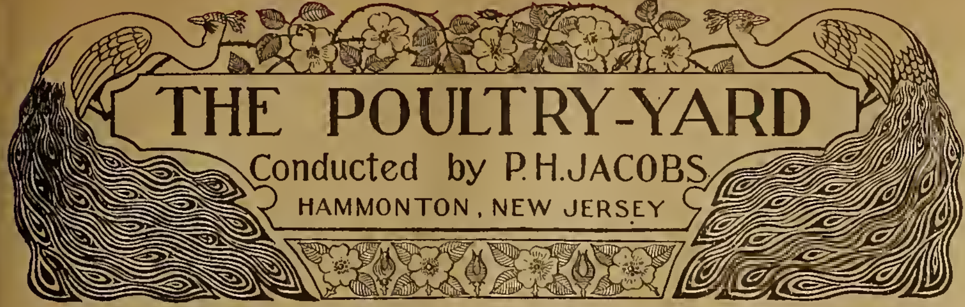

HOUSES AND YARDS

There are so many kinds of poultry-houses that no two persons will agree. It is like building a dwelling-house—it depends on preference as well as the purpose. The simplest houses are the best. If the house is raised so that it will be two or three feet off the ground, in order that the hens can run under it, it will be an advantage. It should be closed under the floor on three sides, the hens to lay and roost in the upper part. A house ten by ten feet, six feet in the rear and eight feet in front, with a door at the side and window in front, the floor three feet off the ground, would be an excellent and cheap plan. It should accommodate twenty hens. An acre of ground is about two hundred feet square. If divided into lots, each twenty by ten feet, it gives twenty lots. If each lot contains ten hens, it gives two hundred hens to the acre. But the proper way is to have two yards for each flock, so as to change them from one yard to the other, which permits of spading the yards and growing green food in the one while the hens are occupying the other. The breeder of a score or two of chickens can easily keep them confined on a small area and furnish them with all the food they can consume, but farmers whose pasture-fields are swarming with various insects—the best food for poultry—and whose grain-fields need gleaning, should pursue an altogether different plan if the poultry is to yield the greatest amount of profit, especially if large numbers are to be reared. It is a well-known fact that a large number of living beings confined in a small space of ground induces disease; so fowls always do best if separated in small lots of from fifteen to twenty-five. In such lots, if scattered over different fields, they do better and grow faster than when all are roaming together, and do so on much less food, as they pick up many insects and seeds, each flock having its own range.

FANCY AND UTILITY

The majority of those interested in poultry have no inclination to devote their time to the breeding of beautiful birds only, but prefer to realize a profit from carcasses and eggs, and hence any attempt to sacrifice vigor and strength in order to secure a straight comb or a certain shade of color will in the end prove detrimental. This is proved already from the fact that while the fancy breeders have been more exacting in their standard requirements than in any other class, yet they have not succeeded in securing a stock of uniform show-birds from the best of their prize-winners, while the breeders of larger stock, who give but few points to color-marks, have only a small number of culls in their herds. The farmers who raise poultry for market, however, owe much to the breeders of fancy poultry, for despite all mistakes they may have made, they have preserved the purity of the breeds, and as their standard is only in its infancy, the time will come when all the breeds will combine not only the characteristics of utility, but convey also the outward evidences of the purity of the stock.

POULTRY DROPPINGS

Poultry manure rapidly decomposes and gives the poultry-house a very unpleasant odor. This cannot well be avoided, even when the house is daily cleaned, but it can be treated so as not only to be of greater value, but also to lessen the disagreeable odor to a certain extent. The roosts, of course, should be so arranged that the droppings will all fall on the platform. Keep the platform well covered with sifted dirt half an inch thick. To do this is to first scatter the dirt, and then over the dirt scatter a handful of kainit (German potash salts), which will arrest the escape of ammonia when decomposition begins. Two or three times a week (daily is better) sweep the platform with a broom, and after it is done sprinkle the platform and floor with a solution of a tablespoonful of carbolic acid in a gallon of water, and then scatter the dry dirt on the platform. The well-known Douglass mixture, composed of one pound of copperas, two gallons of water and one ounce of sulphuric acid, is also an excellent disinfectant and a very cheap compound that can be used freely. Nothing parts with ammonia sooner than poultry manure, and only a short period is necessary for it to deteriorate. In the process of drying the evaporating moisture hastens the loss of volatile matter. The fat acids bear a direct relation to the alcohols, and are capable of forming compounds, which results where the droppings are kept moist with soap-suds (for they must never be allowed to become dry), and during the time the changes are occurring in the mass the insoluble portions are reduced and the whole rendered more available as a plant-food, as well as retaining its value as a fertilizing agent.

QUALITY AND BREEDS

It would be an excellent improvement on the breeds if they could be bred with plenty of breast meat similar to that possessed by the turkey. But unfortunately we cannot secure all of the desirable qualities in a single breed. Breast meat is the result of exercise, to a certain extent. It is muscle, and the birds possessing it are naturally high flyers. The Brahma has the frame and build for laying on large quantities of meat, but it is deficient on the breast, due to having been bred to remain near the ground instead of flying. The Game, on the contrary, being an active, vigorous breed, is well developed on the breast, and has small bones and large muscles, which make it an excellent table-fowl. I do not allude to the standard exhibition Games, although they are not entirely deficient, but to those Games that are bred exclusively for the pit. Being trained and developed for strength and vigor, those characteristics are inherent in their progeny and render them an excellent breed of fowls. When crossed on the Brahmas they combine quality and size, and though the cross birds are not such high flyers as the pure breeds, they possess some of the good qualities of the Games with the weight of the Brahmas. In breeding for home use these points should not be overlooked. Quality should never be sacrificed under any circumstances.

CHANGING LOCATIONS

It is a curious thing at times that the removal of a hen from one farm to another will prevent her from laying for awhile. This can only be accounted for on the supposition that the change causes a shock to the nervous system, by fright, to a certain extent, with a corresponding diminution of nutrition. That birds control the matter to a degree is shown by the fact that if the nest of a wild turkey-hen be destroyed she will make another and deposit a number of eggs equal to the first, although she will otherwise raise but one brood. Our domestic turkey is also induced to lay more eggs when the eggs are removed from the nest, and all females of birds will show an inclination to sit and cease laying when the nest becomes full. These facts indicate that there is a control, to a certain extent, on the part of the hen.

KEEP THEM BUSY

Hens that go in the corner and sit down should be put to work. In the morning give them about one third as much food as they can eat, so as to have them hungry. Then get some leaves, cut straw or dirt, and scatter about a teaspoonful of wheat, corn and oats (mixed) through it. The hens will soon get hungry, and finding one grain will hunt for another. That is just what you want. Give them nothing until night, then feed all they want. Do this every day. Keep them hungry during the day, but feed them well before going to roost, and they will keep well and lay.

CORRESPONDENCE

Gapes.—I would like to say to the readers of the Farm and Fireside that I think gapes in chickens is caused by them drinking from stagnant pools, as I have never had a case of gapes, and have raised poultry twenty-one years, but have always had well-drained ground for my poultry. S. A. B.
Phelps, Mo.

Management.—Being specially interested in poultry, I am moved to contribute a few words of commendation of the hen, which, if she lays not the legendary "golden egg," at least lays its value in the many things necessary for the comfort of those in the average farm home. The variety of palatable dishes made from her fruit are innumerable. No wonder the woman on the farm, who has supervision in these matters, holds the hen in high esteem. Indeed, I know of one woman who relies on her two hundred hens for groceries for herself and husband, dry-goods and millinery for herself, and figures on paying her dressmaker from the same source of revenue. Her table you would find set with china, which but favorably compares with the dainty, wholesome food, of which there is always plenty, and of vanity, which tends toward inviting the appetite. Then let us not overlook what at first may appear minor details in the care of the hen. By observing her as a forager learn what she requires when the weather is such that she is confined to the yards or houses. Then profit by the observation—that is, feed her as nearly as possible foods containing the same properties as those for which she makes such diligent search. These are the foods which produce eggs and keep her healthy and active, her comb bright and her voice tuned. No wonder the breeds famous as layers are such proud, gay-looking creatures. Why should they not be? They do their work, and do it well when the resources with which nature endows them are not restricted. But with all the care in the way of food and shelter that may be given the hen, eternal vigilance is necessary for the prevention of those dreaded pests—lice and mites. Occasionally all nests should be made entirely new, and the walls behind and near them scalded with kerosene emulsion. When nests are old scald them with the same before setting the hens; apply the same to the roosts, and should the hens, in spite of all efforts, become infested with lice and mites, there is nothing better than kerosene emulsion—only applied warm. If you are not quite sure what this preparation is, I will tell you. To a wash-boilerful of warm soft water (preferably) add soap, to make a strong suds, and one and one half cupfuls of kerosene (coal-oil); a little tea from tobacco or a few drops of carbolic acid is an addition (let the drops be very few). Dip the hens one by one, washing each one well, but not too long. Wash well up on the neck and head and about the vent. Be sure all the feathers are well wet, and turn her loose in the sunshine to dry. The day for this work should be warm and bright. R. S.
Melbourne, Mo.

INQUIRIES ANSWERED

Indigestion.—Reader writes: "What is the best remedy for indigestion with poultry?"

Reply:—Withhold all food for forty-eight hours, then feed only one meal a day. Indigestion is due usually to overfeeding and lack of exercise.

Loss of Young Turkeys.—Mrs. J. N., Mayle, N. Y., writes: "I have good luck with my little turkeys until they are about two or three weeks old, then they drop over dead. What is the cause? They have lice on them."

Reply:—The fact that you have found lice on them is a sure indication that the young turkeys are being destroyed by the vermin.

Sores on Heads and Feet.—J. H. W., Big Timber, Mont., writes: "1. Some of my chickens have sores on their heads and feet. Can you tell me what to do for them, and if it is contagious? 2. Are the Silver Spangled Hamburgs as good layers as the Leghorns?"

Reply:—1. It may be due to several unknown causes, depending upon the surroundings. Disinfect the premises, sponge the heads and feet with a solution of blue vitriol, and anoint with melted lard. 2. There is no superiority of Leghorns over Hamburgs, or vice versa.

BEST FOR THE BOWELS

If you haven't a regular, healthy movement of the bowels every day, you're sick, or will be. Keep your bowels open, and be well. Force, in the shape of violent physic or pill poison, is dangerous. The smoothest, easiest, most perfect way of keeping the bowels clear and clean is to take

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VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the Farm and Fireside answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to Dr. H. J. Detmers, 1315 Neil Avenue, Columbus, Ohio.

Note.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

"Lumps"(?).—W. F. H., West Fairview, Pa. As so many persons use the word "lump" so indiscriminately for nearly everything raised above the surface, I have no means of knowing what you mean, since you give no description whatever.

Impotent.—W. R., Huron, S. D. Impotence in male animals may have various causes. Therefore, the simple statement that your bull, which was with your cows since last November, has failed to get them with calf does not indicate the cause of the impotency. Although it is highly probable that the fault is with the bull, it is not impossible that the same may be somewhere else. Breed, at any rate, some of your cows to another male.

Aborted Twice in Eighteen Months.—C. E. B., Bartow, Fla. Since your cow has already lost two calves inside of eighteen months it can hardly be expected that she will carry another calf the full length of time. Whether the two abortions were produced by infection, or whether the same were caused by feeding cotton-seed (oil-cake) meal, does not proceed from your statements. Cotton-seed oil-cake, however, has the reputation of producing abortion if fed to cows that are with calf.

Perhaps Tuberculosis.—W. W. B., Dayton, Tex. The symptoms you describe are such as are common in bovine tuberculosis. Still I do not positively say that your cow is affected with that disease, but there is surely enough suspicion to make it advisable to have her either examined by a competent veterinarian or subjected to the tuberculin test. Maybe you can procure the tuberculin and instructions how to use it from the Agricultural and Mechanical College of Texas, located at College Station, Brazos county.

Scalded with Hot Grease.—B. S., Johnson City, Tenn. If by pouring hot grease over the foot of your horse the matrix of the hoof-horn was destroyed to such an extent that the horn produced on one side of the hoof is morbid and very brittle, a restoration of the horn-producing tissues to their previous state, or to a condition in which they will again produce sound and normal horn, is an impossibility. All that can be done in such a case is to keep the horse properly shod, perhaps with a bar-shoe made in such a way as will give the greatest relief, and, at the same time, protection to the defective part of the wall of the hoof.

Either Swine-plague or Lung-worms.—J. H. C., Shelbyville, Ind. If coughing is the only observable symptom shown by your pigs, it may be that nothing but the presence of lung-worms in the ramifications of the bronchi constitutes the cause. On the other hand, swine-plague is apt to produce just such a cough as you describe; but then the cough, although in some cases the first symptom, will not remain for many days the only one. Lung-worms once ensconced in the ramifications of the bronchi cannot be dislodged, and if present in sufficiently large numbers will become fatal to their host, while the latter will live and more or less overcome the injuries caused by these parasites if the number of the latter is not large, or comparatively small. The stronger and the more vigorous the host, the greater the resistibility of the same. Hence, good care and a sufficiency of nutritious food enhance the chances of recovery. The prevention consists in keeping the pigs, especially when young, away from all stagnant pools, ditches and low and wet places which may harbor the worm-brood.

Epizootic Ophthalmia.—M. W., Adair, Ind. T. What you inquire about is probably a case of epizootic, or infectious, ophthalmia of cattle. As the principal seat of the morbid process is in the cornea (ceratitis), the latter soon becomes opaque and the eyesight for the time being is lost; but if no other morbid changes occur, and if the cornea remains intact (does not break), and if no suppuration is produced, the opaqueness will in time disappear either completely or partially, and the affected animal will regain its eyesight. It is different where the cornea breaks, or where small abscesses perforate the same, for then the aqueous humor will escape, the morbid process will spread to the interior parts of the eye, and the eyesight will be permanently lost. During the first stage of the disease I would recommend the use of a weak solution of corrosive sublimate (one part of corrosive sublimate dissolved in five hundred parts of distilled water) as an eye-water. It may be applied by means of a so-called dropper, to be had in any drug-store. After the first stage has passed medication appears to be useless. Damp, dirty and illy ventilated stables must be considered as injurious.

Nymphomania.—T. A. C., Altoona, Pa. What you describe appears to be a clear case of nymphomania, a disease usually caused by a morbid condition of the ovaries. In a majority of cases this morbid condition is a product of local tuberculosis. Where this is not the case, or where the tuberculosis is confined to the ovaries, spaying will convert such an animal into a good beef-animal, provided, of course, the operation is properly performed.

Morbid Growth.—F. P., Kanona, Kan. If what you try to describe is a morbid growth situated on the surface of the body and attached to the skin by a neck, so that the body of the growth hangs down, following the laws of gravity, you can easily remove it yourself. Get from your shoemaker a good, strong "wax-end" about four feet long, make in the middle a double noose, a so-called castration noose, slip that over the growth, or tumor, as close to the body of the mule as you possibly can, and then, taking hold of both ends of your wax-end—to obtain a better grip you may tie to each end a small stick—and draw the double noose as tight as you can. This done, you may tie an additional knot over the noose, and if you have drawn the noose tight enough nothing further will be necessary. The whole operation will cost you five cents for the wax-end, instead of five dollars. Still better, get in a drug-store a couple of feet of new and strong rubber tubing that is not too thick, pull it out as long as you can without breaking it, then tie it in its stretched-out condition around the neck of the tumor, as close to the body of the mule as possible, and if the tubing was kept sufficiently stretched when tied the operation is performed and nothing is needed. It will cost you perhaps twenty cents.

Bloody Milk.—T. V., Kane, Ill. So-called bloody milk, or rather an admixture of either blood or of hemoglobin to the milk, may have various widely differing causes. I will once more enumerate them: 1. Bloody milk sometimes appears immediately after calving, and then disappears in about two weeks; it requires no treatment. 2. An admixture of blood to the milk may be observed in cases of mastitis (inflammation of the udder), in consequence of external injuries, of rude milking or of violent sucking. 3. An admixture of blood may occur as a result of congestion to the mammary glands while the cow is in heat. 4. A red color of the milk caused by an admixture of hemoglobin (dissolved blood) may occur in combination with hemoglobinuria, caused either by resinous substances contained in the food or given otherwise, or as a concomitant of certain infectious diseases causing a dissolution of the blood (hemoglobinemia). 5. Congestion of the mammary glands, and, as a result, bloody milk, may be produced by a sudden change of food from food rather poor in nitrogenous compounds to food that contains an excessive quantity of the same; for instance, to a rich clover pasture. 6. An admixture of blood to the milk is also quite often observed in case of mammary tuberculosis. An admixture of blood to the milk is easily distinguished from an admixture of hemoglobin. If it is the former, the red color is in streaks and the microscope reveals numerous blood corpuscles, while in the latter the red color is uniform and the microscope either shows no blood corpuscles or but very few. The remedy in all these cases consists in removing the causes; where this cannot be done a remedy does not exist.

Sick Horses.—J. J. L., Spencer, Neb. It does not appear from your description whether your horses suffered from influenza or any other respiratory disorder; but as they have been sick for a month on the sixteenth of June, the date of your letter, and as this cannot possibly reach you much before the fifteenth of July, it would be reckless to prescribe for them without knowing what changes may have been effected either for better or for worse during that long time. I admit it is very inconvenient to be forty-five miles from a competent veterinarian; but if, especially in cases like yours, one follows only the dictates of common sense, and gives a sick horse absolute rest and good care, instead of compelling the same to perform its accustomed work, and is not too anxious to do "something," the real damage caused by such an inconvenience amounts to very little. The most careful analysis of your description convinces me that in the beginning your horses were not at all seriously affected, had probably a slight attack of influenza, and would have, every one of them, perfectly recovered long before this reaches you if the same on showing the first symptoms of sickness had been exempted from all kinds of work, had been kept quiet in a well-ventilated stable, in which they had pure air to breathe, had been fed with moderate quantities of sound food easy of digestion, received pure water to drink, and on the whole had been well taken care of, even if no medicines whatever had been used. I am the last man to deny the usefulness of medicines where properly and judiciously used, but I also know the incalculable damage done every day by an injudicious use of medicine by persons who neither know the precise effect that will be produced, nor the effect that must be produced to gain the desired end, or by medicines administered simply for the purpose of doing "something."

Another "Lump."—M. A. G., Isabel, Oreg. If you tell me where, on what precise part of the body of your cow, that "lump" is situated, I may possibly be able to answer your question; but not knowing whether it is on the head or on the foot, or anywhere between, I cannot.

Infectious Abortion.—F. H. H., Zelma, Ind. What you describe appears to be infectious abortion. If any of your cows are with calf now, remove them to a non-infected place until they have calved. Meanwhile clean and disinfect your stable and the place where the abortions have occurred in a most thorough manner. If any cows now with calf should abort, burn the fetus and the afterbirth, disinfect the genitals of the cow by irrigating the uterus and vagina with a one-per-cent solution of creolin in blood-warm water, and by washing the external genitals of the cow with a two-per-cent solution of creolin, and clean and disinfect the place where the abortion has occurred. Still, as at least two of your cows have already aborted twice, and the other two at least once, it is not improbable that they will abort again in spite of all precautions that may be taken to prevent it. It may, therefore, be more economical to prepare all four cows for the shambles, and then, after the stable and the places where the abortions have taken place have been thoroughly cleaned and disinfected, to buy new and healthy cows.

Bringing Up a Colt by Hand.—H. E. M., Dwight, Ala. To raise a young or new-born colt by hand requires much more care and labor than is generally supposed. To give complete instructions would lead too far and require much more space than is available. Therefore, I can only give a general outline. 1. All the milk used must be perfectly fresh and sweet. 2. Cow's milk essentially differs in its composition from mare's milk, and is much richer in casein and much poorer in sugar of milk. The excess of casein does not agree with a young colt, therefore the cow's milk must be diluted, and thus an excess of water must be given, which, however, is not as injurious to a young colt as an excess of casein. The lack of the sugar of milk could be supplied by adding sugar of milk, but as this would prove to be rather expensive, the best grade of white sugar is used as a substitute. There are also other differences between cow's milk and mare's milk, and these being of less consequence are usually disregarded. The milk given to a new-born colt, therefore, should be composed of about thirty-three per cent of fresh and sweet milk from a fresh-milking cow (milk from an old-milking cow should not be used), just enough of the best white sugar to give it the same sweet taste of mare's milk, and sixty-six or sixty-seven per cent of pure water. It should be given milk-warm, which is easiest done by using warm water for dilution. To avoid unnecessary trouble the young colt should be taught to drink as early as possible. A good way to do this is to have the milk in a vessel that is neither too deep nor too shallow, to dip the right hand, which has first been washed clean, into the milk in such a way that the index finger extends, with the tip pointing upward, over the surface of the milk, and then by inducing the colt to suck the finger, which it will be willing to do. As soon as the colt is sucking, the finger is gradually lowered deeper down into the milk so that the lips of the colt will touch the surface. After some patience and repeated trials to bring in that way the lips of the colt in contact with the milk, and deeper down into it, the colt will soon find out a way to get larger quantities of the coveted fluid, and in a day or two will have learned to drink. After a week or two the percentage of milk may be gradually increased, and that of water in the same proportion be decreased, so that in about a month the mixture will be about half milk and half water, and in about three months all milk. The exact proportion suitable for every case cannot be given, because there is considerable difference between milk and milk and between colt and colt. The best results will be obtained if the digestion of the colt is carefully watched. While the colt is yet very young and the milk very much diluted the colt should be nursed every two hours. The time may be gradually lengthened so that it will be eight hours when undiluted milk is given. Besides this, the young colt should be taught to eat as early as possible, first a little young, fine and sweet grass, which under no circumstances must be allowed to become wilted, then a little oatmeal gruel, and afterward some boiled oats. After the colt has passed the first three months all that will be necessary is to provide the same with fresh milk and suitable food, and when five months old fresh skimmed milk may be substituted, and that may be gradually more and more diluted with water until after another month or two it is nothing but whitish-colored water. The ration of oats, however, must be gradually increased, and no running down or falling off in flesh must be allowed. It is very bad practice to turn any colt out of doors during the winter to shift for itself and to seek shelter at the "northwest" corner of a straw-stack, driven away from all the better corners by stronger and older animals, and it is absolutely ruinous to a colt that has been raised by hand, because such an animal needs during the first winter the very best of care and the most nutritious food.

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THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

THE PROGRESSIVE FARMER'S VIEWS

The business feature of the grange appeals strongly to the farmer. Farmers are learning to count in per cents instead of cents. By making use of the trade arrangements made by the executive committee of the grange the per cent saved on a year's purchase for an individual family would give that family means for many luxuries not now enjoyed. The saving on a pound of sugar or a ball of twine is small, yet in the aggregate, for even a small family, it amounts to several dollars in the course of a year. One member told me that on an order for groceries amounting to $18.75 he saved, after paying all charges, $5.80. "And," added he, "I get better goods for my money. I am now making out an additional order for groceries and hardware. I have been figuring on the basis of my saving this year what I would have saved had I bought my goods in this way for ten years, and I find I could have bought my daughter a piano with the saving. You can imagine how I felt. She has musical talent, and it has been the heart's wish of my wife and self to give her a musical education. But we could not go in debt for it. Now I see that we have economized and denied our child privileges that H.'s children and wife might dress elegantly, taking expensive outings and enjoy the luxuries of modern living. I wondered how H. grew from a poor boy to a rich man, and rather doubted his honesty. We counted every egg and weighed each pound of butter. There was only a small difference in our counts—sometimes in his favor, sometimes in ours. I had never paid much attention to the trade arrangements of the grange, but I began to figure on what we must buy during the year. Fortunately, wife and I both keep a strict account of all expenses, and it was an easy matter to make our estimate. We soon found the basis of H.'s success was founded on ours and our neighbors' economies. We were compelled to buy only the necessities of life, the staple articles of commerce. Thus he lost but little by carrying goods that were unsalable. He selected the kind of goods that would pay him the largest per cent on his investment, just as you and I would do, and we paid for those goods even more than a better grade would cost if we bought through the grange. We immediately made out an order for goods. It seemed pretty large; we compared it with our actual expenses for last year, and found that we would save about twenty-two per cent. We hadn't the money to buy all we needed, so we purchased the necessities. We need other things now. I have just given my note, at six per cent interest, for the money. I felt pretty nervous about doing this, but I kept the twenty-two per cent in mind, and went ahead. We bought only the things absolutely necessary, so I feel pretty safe. I will tell you how I come out after I sell my wool."

"How about your trade?" I asked.

He smiled lugubriously. "If it doesn't pay better than it has I shall stop raising chickens and making butter to sell. One thing I have decided upon; that is, to keep only the number of hens through the winter that I can keep well. My chickens have never paid for the time and feed given them. There is money in them for the person who will keep only so many as he can keep well. So, you see, I am finding out that I have been losing in buying and losing on what I raise. No other business but that of farming could stand that long, and no other class of people but farmers would patiently plod along this way so long. You see, we have always been taught to economize. If our receipts were less we pinched the dollar a little harder. When it comes to a question of self-denial the farmers can give the other fellow pointers every time."

"How do you explain the fact that farmers are willing to deny themselves these comforts?"

"It is their heritage," he replied. "Many are farmers from necessity, not choice. They do not bring zealous and inquiring minds to their work. They accept their lot as an ultimatum of Fate. They know little of the world beyond their immediate neighborhood. Thus they are entirely dependent on that neighborhood for their views of life. Naturally one does not receive a large amount of encouragement from people similarly situated. Current expenses must be kept up, and the money must come from local trade. The farmer disposes of his crops, only to find a very small margin for improvements or accumulation. He has vague dreams of better things, but hard work scatters his dreams to the four winds. Thus it becomes a matter of habit to save rather than find a new market or improve his product for a choice market. I verily believe that if the same energy that is used in denying one's self-comforts was used in better methods of farming, in breaking away from worn-out traditions, not only would the farmer be happier, but he would be more prosperous as well."

I think our friend is largely right. His idea is to create in every one more desires, knowing that the desire, if strong enough, will be fulfilled. He believes also in less manual labor and more brain labor. Sixteen hours of hard labor leaves little time or strength for thought as to how to turn the product of that labor to account.

Some time to every farmer comes the question, How happens it that my neighbor is so successful, while the lot of myself and my family is such a hard one? Happy for himself and family is it if he turns the search-light on his own life, as our friend did, instead of lamenting over the injustice of the world. Sooner or later he will find that in his own methods the fault is largely to be found.

GATHER THE LITTLE ONES IN

If some bright young girl full of noble resolves and generous impulses wanted to do a work of far-reaching good in her own community she could find no place in which her energies would find wider scope than in organizing and looking after a juvenile grange. Children like to do as older ones do. They are quick to find out the ones with like desires and ambitions. These band together in little societies and cliques. A bright young woman could turn these natural traits of children to good advantage. Try the plan of organizing a grange in your community, and see how quickly the little ones will take on important airs; how eagerly they will ballot for their officers; how closely they will guard their little secrets. Train them in parliamentary usage. Instead of dividing the grange into arbitrary classes, each class having its appointed time to be on duty, let the children organize two or more societies within the grange. Let each society have its officers and its constitution and by-laws. This will stir up a healthy rivalry and cause the children to do their best from the inherent desire to excel. Let them choose a name, preferably from some noted personage or society. Look up in your encyclopedia the biography of several notable persons, and tell it in story form to the children. They will soon select their favorite and name their societies for them. When a teacher in a small country school I tried this plan, and it was eminently satisfactory. The two societies were called the Emersonian and Holmes respectively—the children choosing these names. Each society then learned all it could of its favorite, committed to memory many choice gems from each, and were thus led into the broader realm of literature. It would have done your heart good to hear the little ones talk of the Brook Farm community, of Emerson, Thoreau, Channing and others of that brilliant company. Their lives were enlarged by the study. They felt a relationship to these noble men and women, as, indeed, they had a right to. The effect on the neighborhood was marked. One mother said to me, "What is that the children are singing?" We listened a moment. It was the last verse of Holmes' "Chambered Nautilus." Those children were indeed building stately mansions. At another time we heard them chanting the prayer of "Mary, Queen of Scots," in Latin. Did they understand these things? Perhaps not at all, but the rhythm and musical cadences appealed to their childish love of beauty and form. The same mother said, "The children hardly ever quarrel at their play since they have gone into these societies. The other day the children had some trouble, when Agnes said, 'We can't sing these verses if we are going to fuss.'"

The great secret is to get the little ones interested. Their natural curiosity and desire to excel will be spur enough. The way the days of youth are spent indicate the life of the grown-up. I would not have the little ones long-faced and solemn, but I would see that their childish inquiries, as much as possible, found answer. Such a life would not make them dull and morose, but quick, bright, eager, joyous, a comfort to themselves and a blessing to humanity. It is not the studious, inquiring child that loafs at the corner grocery or makes a break for every freight that pulls in town. These loafers are those whose active minds have not been trained in the right channels, but whose activities were directed to the low and vile. These are the ones which give rise to the criticism that the country youth is depraved.

Children are easily influenced. See to it that the influences surrounding them are elevating. The children of to-day are the law-makers of to-morrow. They will be in control when your sun is setting. They will largely control the conditions by which the next generation will be governed. See to it that right principles are implanted in their minds when they are yet plastic and easily molded. In no way can this be so well done as in an organization. In no way can the grange be more surely perpetuated than by instilling in the minds of the future grangers the noble and uplifting principles of our order.

* * *

Country children are apt to think their lot especially hard, and envy the town youth his advantages. Not long ago the librarian of a town of about four thousand inhabitants told me of a young man eighteen years of age who had never had any but the compulsory schooling our state demands. Each year he hoped to attend, and each time his hopes were frustrated. He made use of the library, however. But he dared not let his father know he did so, much less know that he could read. What would a country boy think of such conditions? I am pretty sure he would rebel.

* * *

Several parties complain that they are not able to get the books recommended. Those of you who are so fortunate as to live in a state having a traveling library system can secure books at small cost. The following are states I now think of, and conditions governing securing of library: Wisconsin, transportation charges; Kansas, two dollars and transportation charges; New York, five dollars and transportation charges; Michigan, transportation charges; Ohio, transportation charges. In those states demanding a fee, one, I think, will refund it when books are safely returned. If interested, write to the state librarian of your state. Address him at the capital.

CIGARETTE-SMOKERS

The Southern railway system in South Carolina has given a harder blow to the cigarette fiend than all the moral suasion of philanthropists and scientists combined could give. It demands that all employees who now smoke cigarettes must either quit smoking them or lose their positions; and that in the future no one who is a cigarette-smoker will be employed by the company. Railways all over the country refuse to employ men in any capacity of trust who drink. Business men are coming to make the same distinction in all positions that require clear heads and accuracy. When bright young men realize that it isn't an indication of manliness to drink, and smoke cigarettes, and that these habits slam the door on opportunities for engaging in the higher forms of productive labor, they will be quick enough to abandon habits that entail so much misery.

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"PUSSY WANTS A CORNER"

By Frances Bennett Callaway

A NEW game which promises to have considerable fun in it is called "Pussy Wants a Corner." An easy-chair or corner-couch is made luxurious with cushions, rugs, footstool, and here the chosen Pussy sits in state. One of the company chosen to be her secretary sits at her side and reads the questions to be answered.

The first one to give a correct answer takes Pussy's place, the secretary takes the seat left vacant, while Pussy, in the secretary's place, now keeps an account of the game in a tablet provided for that purpose, and continues the questions. These questions must each be written with an appropriate answer on a separate slip of paper, folded carefully, and numbered on the outside. The one who occupies Pussy's corner the most frequently receives the first prize, which may be any souvenir in the shape of a cat—from a silver salt-cellar to a cat calendar or photograph. The booby prize should, if possible, be something cunning in the shape of a mouse. The mouse which jumps out of a brown bun when a spring is pressed is the most fun.

QUESTIONS AND ANSWERS

1. When is a cat not a cat? When she is a "Mauser."
2. What does Pussy take for afternoon tea? Catnip.
3. What comes after catnip? Catnap.
4. In what kind of a bed does Pussy sleep? A cat's-cradle.
5. Where does the cradle stand? In a catercorner.
6. What swift-flying gull calls Pussy to awake? Kittiwake.
7. What comes after Kitty wakes up? Catsup.
8. With what relatives does Pussy spend her evenings? Catkins.
9. To what famous club would Kitty naturally resort? The Kit-cat club.
10. What useful book has Pussy made out of a log? Catalog.
11. What jewel does Pussy prize most highly? Cat's-eye.
12. What article of her toilet has long been in disuse? Catacombs.
13. What tree does Pussy pronounce when she wants to have her own way? Pussy-willow.
14. What bird calls Pussy up a tree? The cat-bird.
15. What wild animal does she personate as she mounts? Catamount.
16. If Pussy were to fall, what furry creature would support her? Caterpillar.
17. When is kit in a position to be of the most use to the world? When a kit of tools.
18. What mountains in this country are the most dangerous for cats to travel in? The Catskill mountains.
19. When Pussy goes boating, what sort of a boat does she take? A cat-boat, of course.
20. When the boat upsets in the lake, where does she find herself? In a cataclysm.
21. What happens then? A catastrophe.
22. How is it written up? In a catagraph.

PREPARING VEGETABLES FOR THE TABLE

The dwellers in cities and towns are obliged to take such vegetables as they can get. Sometimes they are fresh from the gardens where grown, but more often they are not. One who has never eaten peas, beans, corn, asparagus, etc., fresh from the garden has no idea how much superior they are to the same vegetables as sold in the market.

If any one should have their table supplied with the best of vegetables all the year round it is the farmer's family; and I have my opinion of the farmer who does not see to it that his garden is well taken care of, planted with a succession of summer vegetables and a good supply of those that may be kept for winter use.

Given a well-supplied garden, the housewife must see to it that the vegetables are gathered and cooked in the best way. Asparagus should be freshly cut; but when it first starts in the spring it is sometimes necessary to use two days' cutting to have enough for a meal. In that case wrap what you cut the first day in a clean cloth wrung out of cold water, and lay it on the cellar floor. The next day cut the bed again, and cook both together. If it is allowed to grow until there is enough to cut at once, some of it will be tough and woody. In some markets it is impossible to buy the green, tender asparagus which is so superior to the tough, blanched stalks that are sold. Have the water boiling, with a little salt in it, and cook the asparagus about twenty minutes; serve it on nicely toasted slices of bread moistened with some of the water, and dress well with butter.

There are many things which, under the general name of greens, make an appetizing dish in the spring and summer. Among these are spinach, kale, dandelion, cress, mustard and young beets; the latter, of course, cooked tops and bottoms together before the bottoms are large enough to cook alone. Several kinds may be cooked together, and will be an improvement over any one alone. One of the most important things about cooking greens is the careful looking over and washing. Dandelion, kale and mustard are improved by parboiling a few minutes, then draining off the water and adding fresh, adding salt and letting cook until tender. When done drain the greens in a colander, chop fine, put a generous lump of butter in the sauce-pan, and return the greens to the fire until hot. If they are made into a mound in the dish, and garnished with slices of hard-boiled eggs, the dish looks nicer.

Peas are a vegetable that deteriorates very quickly after being picked from the vines. Do not let them stay on the vines too long. They are in their prime just as soon as the pods are plump, and if picked, shelled and cooked at once will be sweet and delicious. Peas should be put into boiling water and cooked about twenty minutes, when the water should be nearly cooked off. Season with a little salt and pepper, a generous lump of butter and a spoonful or two of sweet cream. When cooked fresh from the garden no sugar will be needed.

String carefully, break into short pieces, and wash string-beans, then put them into hot water and boil about two hours. Keep them covered with water, and be sure to allow plenty of time for them to cook tender. When nearly done add salt, pepper and butter, let the water nearly cook off, and just before serving add half a cupful of sweet cream.

Summer squashes are best steamed, and they should be picked when tender enough for the thumb-nail to easily pierce the skin. When cooked drain thoroughly, mash, and set on the back of the range to dry out some. Season with salt, pepper, butter and a little sugar.

Many cooks make the mistake of cooking green corn too long, which instead of making it tender hardens it like boiling an egg too long. Good sweet-corn will cook sufficiently in fifteen to twenty minutes, and should be served immediately. If the corn is not good and fresh, long boiling will not improve it.

Succotash is a delicious dish when properly made. I prefer the horticultural, or "wren's egg," beans to Lima beans for making succotash. Shell the beans and let them boil an hour or more, or until nearly tender enough for the table, then cut the corn from the cob, having as much corn as beans, add the corn to the beans, season with salt, pepper and butter, and let it cook fifteen minutes longer; then add cream, as to string-beans, and serve.

Cabbage is a much more delicately flavored vegetable if parboiled. Trim the cabbage, cut it into sections, wash, and remove the hard center. Then inclose it in a net bag, put into a pot of boiling water, and let it boil ten minutes. Drain all the water off, add as much more boiling water, salt it, and let the cabbage boil until tender—about fifteen or twenty minutes; then drain thoroughly, chop, but not fine, return it to the fire, and season with butter, pepper and cream, unless you wish to serve with vinegar. A teaspoonful of sugar added with the other seasoning is an improvement. MAIDA McL.

ACORN LACE

Make a chain of 16 stitches; turn.

First row—1 tr in fourth st; ch 3, 1 tr in same st, forming a loop, repeat, ch 2, miss 2, a loop in next st, repeat three times, making 5 loops in all; turn.

Second row—Ch 2, 6 tr in last loop made, same in next loop and in three following loops, 1 tr in turning ch at end, to make a straight edge; turn.

Third row—Ch 2, a loop in middle of last 6 tr, ch 2, a loop in middle of next 3 tr, ch 2, a loop in middle of next 3 tr, ch 2, 1 tr in space, 6 on 6 tr, and 1 in space following, 8 in all, ch 2, loop in middle of next 6, ch 2, loop in middle of next 6; turn.

Fourth row—Ch 2, 6 tr in loop last made, same in next, 1 tr in space, 1 on each 8 of tr, and 1 in following space, 10 in all, 6 tr under each of next 2 loops; turn.

ACORN LACE

Fifth row—Like third row, with 12 tr in the solid block.

Sixth row—Like fourth row, with 14 tr.

Seventh row—Like third row, with 16 tr in center.

Eighth row—Like fourth row, with 18 tr.

Ninth row—Like third row, with 20 tr.

Tenth row—Like fourth row, with 22 tr.

Eleventh row—Ch 2, a loop in middle of last 6 tr, ch 2, loop in middle of next 6 doubles, ch 2, a loop between first and second trs, ch 2, loop between sixth and seventh, ch 2, loop between eleventh and twelfth, ch 2, loop between sixteenth and seventeenth, ch 2, loop between twenty-first and twenty-second, ch 2, loop in middle of next 6; turn.

Twelfth row—Ch 2, 6 tr in each of 9 loops, make a tr under 2 ch at end; turn.

Thirteenth row—Ch 2, loop in middle of 6 tr; repeat four times; turn.

Repeat from second row.

NAOMI S. MATTISON.

THE BILL OF FARE FOR CAMP-LIFE

"Don't think of going to camp without a good cook and a chafing-dish." is the advice of a veteran camper; and it is necessary to realize the importance of these items, especially the former, if the camp is situated so far from stores that there is not even the occasional call from the baker to be depended upon. With a good cook there need be no dependence on these caterers to civilization, and the jolliest sort of a time can be had at a minimum expense.

In the morning you arise a little after daybreak, for not to be up at sunrise argues laziness, as well as losing one of the rarest sights of the whole twenty-four hours for the tardy sleeper. A dip in a near-by stream in lieu of the usual morning tub brings you out as fresh as a daisy and ready for breakfast, which generally consists of fish but a few hours out of the water, savory bacon, coffee, potatoes and rolls.

After breakfast the various members of the company make ready for their special diversions, some preferring long strolls for the excitement of fishing, where a bite comes almost every other minute, and still others going off in canoes and row-boats to visit the other camps situated along the borders of the same sheet of water.

At noon-time a hungry horde assembles to eat almost practically the same things as at breakfast; but the air is so bracing that keen appetites produced thereby never cavil at the fare, but pronounce it the best in the world, never objecting the least bit to a monotony that would soon make them lose their tempers at home.

In the afternoon everybody sleeps until three o'clock, the hammocks being in particular demand, after which more tramps, boating and reading are indulged in until bed-time, when every one gathers around a gipsy-kettle and an al fresco meal is participated in by all hands—the men making the tea and broiling the fish, the girls preparing special dainties in the chafing-dish.

Then at night, those glorious moonlit hours, when all sit out under the trees and sing, or drift out into the lake in a blissful, restful spirit that takes you miles and miles away from the humdrum existence of city life. Away in the distance is heard the songs from some other camp, and the voices of the night chirp in merry chorus as each one steals away to repose that is sweeter and more refreshing than any enjoyed since childhood days.

Even the rainy days are made charming with taffy-pulls and games in the shelter of the tents, with reading and music; and in the evening the chafing-dish is again brought into play. With the rubber boots and the sensible camping clothing sundry outdoor excursions may be enjoyed under the dripping leaves, for the costume will defy the drenchings.

Taking it all in all, the camping girl will have the best time of it. There will be no big dressmaker's bills to pay, and no dressing up in purple and fine linen for the benefit of hotel guests. She intends to go in for genuine fun, as well as for rest, and she intends to bring back a store of health with her in the autumn worth untold wealth. And if she can add to this a quantity of sketches and studies which she will work up for financial profit during the coming winter in town, or a store of floral specimens for her herbarium, or of insects or geological specimens for the collection that happens to be the particular fad of the time, she will feel that she has received a double benefit from her camping experience.

PHEBE WESTCOTT HUMPHREYS.

THE GIRL IN THE KHAKI DRESS

There she goes in the shopping square;
The men look back, and the women stare;
The critics' remarks are passing aloud
As she wends her way through the gaping crowd;
But she hears them not, and she cares much less;
She's one of the first in a khaki dress.

She passes the cop on the shopping heat;
He smiles, and points out into the street.
"The color's the same," he says, with a grin—
"The same as the mud she's walking in."
But she hears them not, and she cares much less;
She's one of the first in a khaki dress.

The newsboy grins, "Get onto her nibs!
Now, wouldn't dat tickle yer under de ribs?
'Tis awning stuff wid a mustard smear;
Take it away! It don't go here!"
But she hears them not, and she cares much less;
She's one of the first in a khaki dress.

'Tis a gauntlet run for a thousand eyes.
But she braves the "Whews!" and the rude "Oh, mys!"
And the girls who gape and love to say,
"She looks like a road on a rainy day!"
But she hears them not, and she cares much less;
She's one of the first in a khaki dress.
—Chicago News.

VEGETABLES IN GENERAL—A FEW IN PARTICULAR

When vegetables are being boiled a steady, regular fire should be kept up, and they should never for a moment be allowed to stop boiling or simmering until they are thoroughly done. A little salt should be thrown into the boiling water before the vegetables are put in. When done drain carefully before sending to the table. The practice of putting saleratus in the pot to improve the color of green vegetables is to be deplored, as it destroys the flavor and renders them flat and insipid.

Carrots.—To boil carrots in their own juice, wash clean and scrape them, cutting out discolored spots; cut them into rather thick slices, and throw them into as much boiling salted water as will barely cover them. Boil gently until they are tolerably tender, then boil quickly, to evaporate the water, of which only a spoonful or so should be left in the saucepan. Sprinkle pepper on the carrots, put in a small piece of butter rolled in flour, turn and toss them gently until the juice is thickened and adheres to them, and serve immediately. They are improved by adding a dessert-spoonful of minced parsley and cream mixed with a little flour to prevent curdling.

Squash with Toast.—Cut into pieces, and stew until tender, in as little water as possible. Put into a colander, drain thoroughly, then return to the stove and add two tablespoonfuls of butter, salt and pepper. Serve on toast.

Beet and Cabbage Salad.—Chop equal parts of boiled beets and young cabbage. Mix thoroughly, add salt to taste, a few tablespoonfuls of sugar, and cover with diluted lemon-juice.

Baked Beets.—Wash young and tender beets, and place in an earthen baking-dish with a very little water; as it evaporates add more, which must be of a boiling temperature. Set in a moderate oven, and bake for two or three hours. When tender remove the skins, and dress with lemon-juice or cream sauce.

Stewed Corn-pulp.—Take six ears of green corn, and with a sharp knife cut a thin shaving from each row of kernels, or score each kernel, and with the back of the knife scrape out the pulp, taking care to leave the hulls on the cob. Heat one and one half cupfuls of rich milk to boiling, add the corn, cook twenty or thirty minutes, and season with salt and a little sugar.

Green Peas with Bacon.—Two quarts of shelled green peas, two onions, one handful of parsley, two pounds of bacon, two tablespoonfuls of flour and two cupfuls of water. Cut the bacon into dices and brown awhile in a saucepan. Sprinkle over with flour. Add water, peas, onions (whole), the parsley (tied), and cook one hour. Take out the onion and parsley just before serving.

To Blanch String-beans.—Select nice fresh string-beans. Break off the tops and bottoms, carefully string both sides, wash them carefully in cold water, lifting them up and down, then drain off the water. Place them in a vessel, cover with boiling salt-water, and cook for twenty-five minutes. Drain off the water, return them to fresh cold water, and allow them to cool in same. Lift out and wipe dry, and they are ready to use for salads or other cooking purposes.

String-beans with Cream.—Take a quart of blanched beans, put into a saucepan with a tablespoonful of butter, and cook on the stove for five minutes, stirring them well. Season with salt and pepper and one fourth of a bunch of chives and a sprig of parsley tied together. Pour in a cupful of cream diluted with one egg-yolk, and heat well, without boiling, for five minutes. Serve hot.

Parsnips with Egg Sauce.—Scrape, wash and slice thinly enough parsnips to make three pints; steam, bake or boil them very tender. If boiled, turn into a colander and drain well. Have ready an egg sauce, for preparing which heat a pint of rich milk to boiling, and stir into it a level tablespoonful of flour rubbed smooth with a little milk. Let this boil a few minutes, stirring constantly, then add slowly the well-beaten yolk of one egg, stirring rapidly so that it shall be well mingled with the whole, and salt to taste; let it boil up once, then pour over the parsnips.

Asparagus and Peas.—Asparagus and green peas make a nice dish stewed together, and of proportionate age require the same length of time to cook. Season with butter and cream, or milk in which a small amount of flour has been smoothed.

Asparagus with Dutch Sauce.—After washing the asparagus put it over the fire in small bunches in salted boiling water. When tender drain, and send to the table on toast or a napkin, sending a dish of Dutch sauce to the table with it. To make this sauce, put over the fire a tablespoonful each of butter and flour, stirring them until they bubble, then gradually stir in a pint of boiling water. Season with salt and white pepper, and draw the saucepan to the side of the fire, where the sauce cannot boil; then stir in three tablespoonfuls of oil, drop by drop, or two tablespoonfuls of butter, one tablespoonful of vinegar or lemon-juice, and finally the yolks of two raw eggs; serve as soon as the eggs are added, because it will be apt to curdle if it stands until the eggs are cooked.

Browned Cauliflower.—Beat together two eggs, a little salt, four tablespoonfuls of sweet cream and a small quantity of grated bread-crumbs well moistened with a little milk until of the consistency of batter. Steam the cauliflower until tender, separate into bunches, dip each top in the mixture, and place in nice order in a pudding-dish; put into the oven, and brown.

Cauliflower may be boiled and served with white sauce, or mashed through a colander and seasoned with cream.

Cauliflower with Egg Sauce.—Steam the cauliflower until tender, separate, dish, and serve with the egg sauce as directed for parsnips.

Ella Bartlett Simmons.

PINEAPPLE DOILY

Chain 12; join in a ring.

First row—Ch 3, 23 tr in the ring, join to top of 3 ch.

Second row—Ch 4, 1 tr in next tr, ch 1, 1 tr in next; repeat from all around; ch 1, join to top of 3 ch.

Third row—A double in first tr, ch 5, miss 1, a double in next; repeat all around, making 12 ch loops of 5 stitches each.

Fourth row—Single crochet up to third st of first 5 ch, repeat, ch 7, a d c in third of next 5 ch; repeat all around.

Fifth row—Work up to fourth of 7 ch, repeat, ch 9, a double in fourth of next 7 ch; repeat from all around.

Sixth row—A single in first 3 stitches of 9 ch, ch 5 (for a double tr and 1 ch); repeat a double tr under 9 ch, ch 1, repeat five times, ch 3, 7 double tr separated by 1 ch between each under next 9 ch; repeat from last around, and join last 3 ch to fourth of 5 ch.

Seventh row—A double under first 1 ch, ch 5, a double under next 1 ch; repeat around, making 5 ch between the pineapple.

Eighth row—Single crochet to third of first 5 ch, repeat, ch 5, 1 double under next ch, repeat three times, ch 7, a d c under first 5 ch in next pineapple, and repeat around.

Pineapple Doily

Ninth row—Work up to third of first 5 ch, repeat, ch 5, a double under next 5 ch, repeat twice, ch 9, a double under first 5 ch of next pineapple, and repeat.

Tenth row—Work up to third of first 5 ch, ch 5, a double under next 5 ch, ch 5, a double under next 5 ch, ch 11, and repeat around.

Eleventh row—Work up to third of first 5 ch, ch 5, a double under next ch 13, a double under next 5 ch, and repeat; join always in the stitches where the rounds start.

Twelfth row—A double under 5 ch, ch 5, a double tr under 5 ch, repeat, ch 1, a double tr under same 5 ch, repeat four times, ch 3, 7 double tr each separated by 1 ch under the three center stitches of 13 ch, ch 3, 7 double tr each separated by 1 ch under 5 ch, repeat all around, and join to fourth of 5 ch at beginning.

Thirteenth, fourteenth, fifteenth, sixteenth and seventeenth rows—Like seventh, eighth, ninth, tenth and eleventh rows. This completes the doily.

Naomi S. Mattison.

TRAIN THE BOY

"For every boy who does not work, and for every woman who is idle, somebody must suffer cold and hunger," is a proverb which the Chinese teach their children. It is a good thing for a boy to be busy—always busy. If he has to work out of school-hours, let him be glad that he is getting in training to be a useful man. But whatever he does, if he fails in first attempts let him "try, try again," until he succeeds to his own satisfaction at least. Goethe says:

"Do thy little well, and for thy comfort know
Great men do their greatest work no better than just so."

This will teach diligence, and there is a decided distinction between "diligence" and "busy industry." Habits of diligence, perseverance and patience well inculcated will be of more value than houses and land. Temperance, honesty, integrity, follow naturally in the wake. There is a strong contrast between the resources and temptations of the city and the country boy. Always hungry and thirsty, the growing country boy turns to his garden, his orchard and berry-patch; he knows where wild strawberries, grapes, plums, sassafras, elm, wintergreens, mints, nuts, etc., are to be found; he turns to them, and is satisfied. From a spoonful of new wheat he manufactures a chewing-gum so toothsome that the rubber-boot variety offers no temptation. He is full of invention, and is as busy and happy as a squirrel laying up stores for future use. The broken machines and trumpery with which every farm is strewn offer wonderful possibilities to him. He learns early and unconsciously to put "extortion upon common things and extract the wine of life by pressure." Wonderful lesson!

The unfortunate city boy has the same desires without the same resources. Nothing to do out of school-hours, Satan finds employment for him on the street, with evil companions, and a gambler, a tippler, a cigarette-smoker, is easily developed. A popular humorist has said, "If you wish a child to go in a certain direction you must skirmish along the line yourself." But skirmishing is not enough. Manoeuvering and the most skillful strategy you are capable of often meet with most humiliating defeat. The keen eyes of the child probably discern between simply skirmishing and genuine battling. A good example, however, is a necessity with the most careful training. Aristotle says, "Let the very playthings of your children have a bearing on the life and work of the coming man. It is early training that makes the master."

There is no parent but desires for his child a sound mind in a sound body. It behooves the parent, then, to make a study of the antecedents, of the tendencies, of the bent of mind or inclination of his child, as well as to take the most guarded care of its health, in order to train him up in the way he should go—in the way his talents or gifts of mind direct that he may make a success of his life—a success in the best sense of the word—for his God, for his home and for his country.

"It matters little where I was born,
Or whether my parents were rich or poor;
Whether they faced the world's cold scorn,
Or walked in the pride of wealth secure;
But whether I live an honest man,
And hold integrity firm in my clutch,
I tell you, my brother, plain as I can,
It matters much."

Vesta C. Turner.

A SUCCESS

Tiny, attractive stockings fashioned of silk, dainty fine cloth, etc., were recently distributed among all of the parishioners and friends of the First Presbyterian church of Staunton. Attached to each stocking was the following verse printed in gold on a small card:

"In the size of the hose you wear
Place that number of cents in the stocking with care;
In return, with the missionary society you may dine
At six P. M., May nine."

The name of the church appeared in the lower left-hand corner.

A delicious supper was daintily served to the guests for the amount of pennies the various stockings contained.

This entertainment was enjoyable, and profitable, too; for, as customary, most of the food was donated. The expenses were light, hearts gay, profits satisfactory. Adele K. Johnson.

[household concluded on page 17]

WHEELERS WELCOME

By Albert Lawrence

CHAPTER I.

WHY did father sacrifice it all for us?" This question, in one form or another, had come to Jessie Wheeler a score of times in the last fortnight. On one occasion she had put it directly to her brother. She had left her pans and kettles for a moment and run out to the shed where Craig was placing a new point on his plow.

"Father didn't think he was sacrificing his home when he put the mortgage on it, I am sure," Craig had answered, resting a moment from his work. "The times seemed to demand it. He probably thought he should get well and pay it off. He did it for our good, too. What education would we have had if the last five years of schooling had been denied us? I'm the last to find fault with what father did."

"Oh, I'm not finding fault, Craig!" returned his sister, with a little catch in her voice. "But it does seem too bad that we should have this staring us in the face. To think that we may have to give up the home! This after the death of father—mother finds it so hard! Why couldn't father have let us know? I would rather have given up the chance of learning, and all that."

"Father did what he thought was best."

"But was it for the best, Craig?"

"Whatever is, is for the best; if we believe that—yes."

"Do you believe it? I don't believe I do," doubtfully.

"I think I do," answered her brother, his manner more positive than his words.

"Why did it all come upon us just at this point, then? If it had held off till I had completed another year at the Normal, then I should have been fitted to teach school. As it is I can't do that, and what I've learned the last few years isn't going to be of much help in raising poultry or churning butter. I suppose it is a little better with you. At the Agricultural College you had some practical work which will be of benefit to you on the farm. But in my case I don't see—the best of it."

Craig smiled; he was quite in the habit of doing this when bad went to worse. He had had some thoughts which were in line with his sister's, and a certain characteristic spirit forced him to speak them now.

"I don't know about my college education. It has sometimes seemed to me that I've learned just enough to prove a dangerous thing. But pshaw! things may not be involved so badly as they seem. Mr. Atkinson is coming to the house to-night to go over the papers with mother; then we shall know where we stand. At the worst you and I are well and strong, and I guess there'll be a way to pull out of it, and save the farm, too."

Craig went back to the plow-point and the work before him. He was a short, stoutly built boy of eighteen, with a round, ruddy face, and chestnut-colored hair that gathered in crescent locks about his head. Jessie was nearly two years younger, but boasted the same number of inches as Craig. She was slim in figure, and as handsome in features as the brother, whom she regarded as the best in the world.

A month before they had been called home from their separate schools by the sudden serious turn in the father's illness. For several years Mr. Wheeler had contended against the dread disease consumption. He had fought his malady manfully, ever keeping the worst to himself, and putting a bright look upon things. Because of this his family had failed to realize his condition, and the hard cold in the spring, which closed his earthly span of life, came to them with all the crushing effect of a terrible and unexpected blow.

The Wheeler home was beautifully situated on a farm of eighty acres. The thoroughfare before the house was the main highway cutting across the state from east to west, and was greatly traveled. Ten miles to the east it descended suddenly into the pretty little town of Hillsborough, their post-office and market-place.

Here, to the high school, the children had first gone on leaving home, having finished the course taught in the little red school-house at the Forks, west of the town. Every Friday night for four years the father had driven to town to fetch them home, that the Sabbath might be spent together. After this course followed that partial year at the different institutions of advanced learning situated at such distance that it took them altogether from home. Though for five years the greater part of the time had been spent away from the father, the two felt his death with all the poignancy of a first young grief.

Having finished his work with the implement, Craig dragged it from the shed to where the horse stood, ready to hook on.

"Where are you going to plow to-day?" Jessie asked, following him to the open air.

"On the 'level five,'" he answered. "It is easy there, and I must favor myself a little till I get used to this new work. Besides, mother says that father intended to plant that to corn; and so far as I can I mean to carry out what he intended to do; at least this summer. Since father has let Mr. Hunter have sixty acres to work on shares there are only twenty left for me, and the most of that I shall use for pasture and hay."

Then he turned the plow upon its side and drove away. Jessie remained for a moment, watching him as he passed down the lane to the distant field. The warm, bright sunshine of early May poured upon the country-side and gave color and light to a pretty scene. Hills rose and fell about in giant undulations, as if some mighty sea had suddenly been crystallized and then mottled with browns and greens, with here and there a fringe of woodland.

Mr. Atkinson came soon after the supper dishes had been cleared away that night. Mrs. Wheeler admitted the caller, and directed him to a chair. The shadow of the recent death was plainly heavy upon the house.

"I have brought a statement of the business which your husband transacted through me," began the man.

"My son will be in in a moment," interrupted the mother. "I wish him to hear the matter. He isn't quite done at the barn."

"Yes. Well, I will wait."

Mr. Atkinson laid an ominous-looking envelope on the table near the shaded lamp. "It has been a pleasant day," he remarked; and they responded with words to fill up the interval.

Jessie had slipped into a chair near the outer door, through which she glanced, expecting Craig to enter every moment. Mrs. Wheeler sat in the shadow, swaying nervously to and fro in a rocking-chair. She was still a young woman. Craig and his mother resembled each other much, both in form and features, while Jessie was like her father, a life portrait of which hung upon the wall over her head.

Then Craig came, and the subject calling forth the visit was taken up at once. Mr. Atkinson addressed now the mother, now the children, and now the three jointly.

"As you are aware," he began, "your husband held the title to this home and the eighty acres of land surrounding it. And a very good property it is. This, of course, now goes to his wife and children. Unfortunately, five years ago your father placed a mortgage on the lands, and he has felt it necessary from time to time to increase this. This burden, of course, must fall upon his heirs, also."

"How much is the mortgage now?" asked Craig.

"Um!" began Mr. Atkinson, picking up one paper and laying it down for another until he found the right one. "The principal—three thousand dollars, with interest, payable semi-annually, at seven per cent. One payment fell due last week—one hundred and five dollars."

These figures staggered the little household. Mr. Atkinson had been afraid they would, and had passed over them as lightly as possible.

"What would our place bring at a forced sale?" Craig inquired, with a clouded brow.

"I should judge four thousand dollars."

"Our interest in it is less than one thousand," murmured the boy, more to himself than to the others.

"Do we owe over three thousand dollars?" asked the mother, scarcely able to believe what she had heard. "Besides, where are the bills recently made? Why, it is more than we can ever pay! What will you do with us? Will you turn us out of our home, Mr. Atkinson?"

"No, indeed, Mrs. Wheeler; I trust nothing of that kind may be necessary. You understand that I do not hold the mortgage. I am merely acting as an agent for some Eastern parties—a New York bank, in fact."

"How long will it be before we must pay this or give up our home?" inquired Craig.

"Well, of course if they should foreclose on you—granting that—there would be a year after that in which you could redeem the place. No steps of that kind will be taken for six months, even though you pay not a penny. So if the very worst is to come, you can still have your home a year and a half. In that time quite a bit can be done, and I hope any such catastrophe can be averted. It is not so dark, you see."

"But we have so little money!" said the mother. "And where are we to get any more?"

"There is a little grain in the barn," said Craig; "that could be sold. Our hens are doing nicely. And there will be butter-money."

"But it has always taken all of that to live on! Oh, Craig, I don't see how you can be so hopeful! How can you expect to do better than your father?" And with that Mrs. Wheeler began to cry softly.

CHAPTER II.

At no one conference of the family's was everything definitely arranged. But as they came together from time to time, and talked the matter over, the way cleared before them. At the dinner-table the next day those last words of his mother's came to Craig.

"I don't expect to do better than father did," the boy said then. "You know, mother, I believe that this debt was largely made that Jessie and I might go to school. It cost father upward of three hundred dollars a year to educate us. That drain upon the farm will all cease now. I didn't think of that last night. That saving in itself will more than pay the interest on the mortgage."

"So it will, mama," declared Jessie, suddenly bathed in a ray of hope. "But Craig and I can do better than just stop being a burden. We can help. And all that we raise above the interest will go to lessen the mortgage."

"If we are economical, maybe we shall get along," the mother said.

"There won't a thing need to be bought for me for a whole year," declared Jessie. "I can make the sleeves in my shirt-waists smaller, and they will do for this summer. My winter cloak was new only last fall, and I guess I can wear it three or four winters if it will save our home."

"It's a real comfort to feel that my children look so hopefully to the future," sighed the mother.

"I only wish I could do more," returned Jessie. "Mama would do all the work in the house if I'd let her. There really isn't enough for two. Don't you know of something, Craig, that I can do to earn money?"

"I've been fearing that I should be out of work, too," answered her brother. "The few acres that are left us aren't going to keep me busy all the time. But perhaps I can find something to do for some of our neighbors."

"If we could only take summer boarders," suggested Jessie.

Craig had finished his dinner, and rose to return to the field.

"Summer boarders go where they can have rowing or fishing, or mountain air or something of that sort," said Craig, as he left.

But at night, when all the work was done and the two sat on the porch, enjoying the balmy spring air, Craig said, "Do you know, that summer-boarder idea of yours just fastened itself in my head—"

"Oh, then you think we can make it work!"

"I've been thinking of a scheme—"

"Oh, I knew you would! Out with it! What is it?"

"You know, what lots and lots of people there are go by here on their wheels through the summer. Well, I've thought that we might earn some money by making the place a sort of resort for them. They are always glad to stop and rest under our fine maples. We can keep some light refreshments on hand to sell to them. If we shouldn't do a great deal this summer, it might be the beginning of a business that would prove profitable next year. That mortgage isn't to be paid off in one year, nor in five. But go it must, is my motto, as the Irishman said when he started the kitchen fire with the powder-flask!"

"Oh, Craig, don't!" cried Jessie, with the first hearty laugh since coming home. "Where is mama? I must tell her of it." And she called Mrs. Wheeler to join them on the porch. "We shall always have milk, of course," said the girl. "And most of the time there'll be buttermilk; and they won't be little skimping glasses, either!"

"We can make ice-cream, too," suggested Craig.

"Oh, yes; I learned how to make some lovely ices of the lady where I boarded at the Normal—sherbet, and lovely fruit-ices!"

"Maybe it was for this very thing that I stored so much ice last winter," continued her brother. "I shall paint a big sign some evening—to-morrow evening—and put it out over the bicycle-path."

"We had better give the place some name, hadn't we?" asked Jessie. "Mama, what can we call it? 'Hillside Resort;' how would that do?"

"No; it must be something suggestive of our guests," put in Craig. "'Bikers' Bowery!'"

"Oh, that sounds low and slangy," declared Jessie; and Craig laughed softly because she seemed to take him seriously.

"What is the matter with 'Wheelman's Rest?'" he offered next.

"'Wheelman's'—there will be women and girls— Mama, haven't you a name?"

"'Wheelers' Welcome,'" said the mother; "that would include all who ride wheels."

"But that is our name," began Jessie.

"All the better!" declared Craig. "'Wheelers' Welcome' it is! 'Wheelers' Welcome!'"

They talked of their plan till late, and little by little it grew upon them.

Craig found a long, clean board which could be spared from an inner wall of the barn, and the next evening began to paint the sign. He was a good draughtsman, and made the letters so well they would have done credit to a professional sign-writer. When all was done he called his sister to view the work.

"You ought to have had an apostrophe in there somewhere, Craig," she said, looking at the sign critically.

"That comes of the Normal," he returned. "No, sir; I'm not going to have any apostrophe. That's a pun. You don't punctuate puns and make 'em according to rules of grammar. That don't stand alone for the possessive, but anything the reader's a mind to make of it. See!"

"It's awfully well done, anyway!" she added.

"I'm going to paint a small one to swing under it, with something like this on it: 'Fresh Milk, Buttermilk, Ice-cream, Sherbet, Fruit-ices, etc. Lunch!'"

"That will be good!"

When the farm-work got where he could leave it for a time Craig devoted more of his hours to this new project. With some canvas that had been used to cover wheat he erected an awning beneath the maples, and under this Jessie set an attractive table spread with snowy linen. Chairs were placed about, and a couple of hammocks swung beneath the trees. Their croquet was set out on a smooth piece of ground, and before the summer had passed Craig erected a swing.

Out of two wheels, which he took from a broken-down phaeton, Craig constructed a dummy bicycle of giant proportions. This he painted an attractive color, and hung the sign over the path at the gate. Jessie, always an admirer of her brother, thought this the cleverest hit he had done, for it gave such a finish to the whole. It furnished a sort of universal language, and there could be no doubt as to the patrons they catered to.

Meanwhile Jessie had had her busy time indoors. They believed there might be occasions when some weary traveler would like to spend the night with them. Accordingly Jessie had fitted up a chamber, with denims covering the floor, some cheap, airy fabrics for curtains at the windows, and pretty dainty bits scattered here and there. Some changes were made even in Craig's room, and the beginning of a bed arranged for at the barn, in case it should be necessary for him to give up his room at short notice.

"Now, if no one comes I shall be mad!" declared Jessie, after a particularly hard day's work.

"Oh, they'll come all right enough," returned Craig, confidently. "The season hasn't really opened yet. Wait until July and August! How many did you say—five had stopped here to-day? And our receipts have been seventy-five cents? I call that pretty good for so early! It's the best day we've had!"

The girl's fears that they would have no call to furnish lodgings were changed the very next day, though in a way not at all to her liking. With fleet-footed Mollie Craig could drive to Hillsborough and back in three hours. As there was an errand which required him to go to town, he had an early supper and set out at once. It had been impossible for him to get away sooner, but he calculated to make good time and not be out later than half-past nine or ten o'clock.

Jessie and her mother sat up till he came. Mrs. Wheeler was busy with some mending, while her daughter puzzled over her accounts. It had rained early in the day, and the sky was still overcast with heavy clouds; at rare intervals they parted for a moment and a bright moon shone through.

Soon after nine o'clock there was one such illumination. As the moon broke through the clouds and stood out in its silvery frame the figure of a man might be seen to leave the shining bicycle-path and step into the deep shadow of the fence-corner. His eyes were fastened on Craig's sign and the giant wheel, both of which were boldly outlined against the dark sky. Then he turned his gaze to the house, where a lamp burned near the window.

When the landscape was again shrouded in darkness he resumed his way cautiously, but only to leave the path again after proceeding a few rods. This time he climbed the fence and entered the yard. He skulked along a row of raspberry-bushes to the barn, but found the doors there locked against him. Another moment and he stood just without the beaming light of the window, and for a long time watched the silent workers within.

"Only two women-folks," he muttered after a time. "There ought to be something good for me here!"

Mrs. Wheeler heard a step outside.

"Craig!" she said to Jessie, glancing swiftly at the clock. "Why, it's strange I didn't hear him drive in!"

As she spoke there came a loud knock at the door.

CHAPTER III.

At the sound of the rapping Mrs. Wheeler gave a little start of surprise. She had confidently expected it to be Craig, and that he would walk in. Craig would not knock for admission to his own home, with a light burning and his mother and sister waiting for him. Who, then, could it be at that hour?

With little hesitation the mother went to the door.

"Good-evenin', lady," said a voice calculated to win sympathy. "Could you give me a bit to eat? I have come a long ways to-day lookin' for work, an' I haven't had a mouthful since yesterday noon. I can't find a job, an' I'm out o' money. I don't like to ask for food, but I'm very hungry, lady. With the rain this mornin'—"

"Come in," said Mrs. Wheeler, kindly, and set a chair for the stranger. She stepped into the next room and began to set out a lunch for him on the table. He sat motionless in his chair, with eyes fixed on the floor just before him.

Jessie glanced up from her figures once or twice to see what manner of man they were harboring. He was evidently ten or a dozen years older than Craig; a short beard grew on his face, with a heavy, stubby mustache. He was clad in coarse garments, and his expression was not prepossessing.

"He may not be a dangerous visitor," thought the girl, "but he is a long way from being a desirable one. Dear! I hope Craig will come soon!"

"Now, if you will bring your chair here," began Mrs. Wheeler, nodding to the man. "I have set the coffee on the stove, and it will heat in a few minutes. I am expecting my son to come from town every minute; maybe he'll get here in time to have a cup with you. Where were you employed last?"

"Well, you see, I worked in Illinois last, in a coal-mine. But there was a dispute and a strike. I staid awhile, till my money give out an' I saw there was goin' to be real trouble, then I come away."

"Where is your home?"

"Well—in Canada. If I once get there I guess I can find something to do. You see, in Canada we're always hearin' that there is plenty to do in the States; that there's a job for every man, an' all that sort o' thing. But when you get here it's different."

A change had come over the man in response to the reception which had been given him in this house. Mrs. Wheeler's manner and kindly interest seemed to arouse his better nature. As he ate and told her his story the expression of his face lost its hard, surly look, and the lines, indicative of better things, became more and more apparent.

Something of the earlier expression returned when Craig at last entered the room. But this began to fade away again when the boy took his place opposite to drink the cup of coffee which his mother had poured. Mrs. Wheeler repeated the stranger's story sympathetically to her son, who gave every appearance of being interested.

The clock striking ten acted at last to break up the group. The stranger reached for his hat, and seemed embarrassed to know how to take his leave and thank his friends for their entertainment. He shuffled about the room, making his way close to Craig.

"Can I see ye outdoors a minute, boss?" he whispered into the boy's ear as he passed. Craig followed him into the open air.

"Say, boss, can ye give me a place to sleep to-night? I don't mean in the house. I ain't fit for clean sheets and the like o' them. The barn'll do for me. I'll help ye do the chores in the mornin', to pay for my supper an' breakfast. I tried your barn once to-night, but found it locked."

"I always keep it locked after dark," said Craig. "I can let you stay there, but I shall have to lock you in."

"I'd rather be locked in than locked out," replied the stranger. "Ye see, the rain this mornin' has made the ground too cold and damp to sleep on. I ain't used to this tramp business, though you may not believe it. I'd give it up mighty quick for a good chance to live like an honest man. I've been ordered off of folks' premises an' had the dogs set on me till I'm tired and sick of the life. It ain't one of my choosin', I can tell ye! Well, boss, I won't keep ye up talkin' to ye!"

Craig led the way toward the barn.

"I ain't blamin' folks for not trustin' tramps, though the way I've been used to most places has made me feel like turnin' the worst kind o' tramp. Your folks are the first to treat me white for a month. Oh, of course I hain't stopped at every place. When a feller gets ordered off a farm he don't feel like stoppin' at the very next house, nor the next. Well, boss, you'll find me here in the mornin' all right."

"I'm having a bed fixed here for me," said Craig. "I'll show you where it is, and you can sleep on it to-night."

The tramp seemed much pleased with this show of kindness, and when Craig led him to the partly made bed thanked him.

"I didn't thank yer mother, boss. I didn't seem to have the words. But ye can tell her when ye go in. I'll remember that supper till I get home. Say, boss—maybe ye won't believe it—I've got a mother in Canada!"

There was something in his tones, however, that forced conviction. Craig thought his whole manner a little queer. He had never had a tramp behave just this way before, and perhaps this was the greater reason why he should accept the fellow's story.

They wished each other good-night, and then separated. Craig locked the barn, and returned to the house.

Late as it was, the three talked the tramp over. Jessie was afraid they did wrong to trust him at all; he might fall to smoking, and set the barn on fire. Mrs. Wheeler didn't believe he used tobacco; she had stood over him at the table, and was sure she should have smelled it in his clothing if he did. Craig believed he could be trusted. If the barn were to burn, he would burn with it, and this was reason to believe the fellow would be extra cautious.

It was nearly midnight before the little household became lost in slumber; but nothing arose to disturb them, except the barnyard fowls. These entered long, loud protests in the morning against the sleep that still hung upon the eyelids of the little master and his family, though the sun was more than an hour high.

Craig found his lodger ready to assist in the morning's work. He felt that it was time he knew the stranger's name, for it was somewhat awkward to address him when his back was turned.

"John Frazer is my name, but I'm mostly called Jack. An' what I'm wonderin' is, How much of a farm have ye got here? And do ye run it all alone? I'm not denyin', boss, that I'd like a berth with ye myself!"

Craig explained how he was situated; that only a small part of the land was under his control this season, and that he scarcely had enough to keep himself busy all the time. He thought, however, that Hunter, who had sixty acres of their land on shares, would want an extra hand now that haying would soon be upon them, and after that harvest. He promised Frazer to do what he could for him. Then they washed and went in to breakfast.

Craig had discovered that the stranger carried a small bundle of clothing with him. After the morning meal Frazer opened his belongings on the barn floor, and took out a glass and his shaving utensils.

"Say, boss," he questioned, "would the ladies let me have a cup o' hot water? I'd kind o' like to get cleaned up a bit before goin' over to that place ye speak of. It might make a difference, ye know!" He rubbed his hand over his chin. "My, it's more'n a week since I used that razor last. An' all because I couldn't get hot water. Shavin' makes a lot o' difference with a feller, as I'll show ye!"

Craig said he would fetch the water, and left at once for that purpose. The tramp rose in Jessie's estimation when she learned her brother's errand.

"Why, it's his beard, mama, more than anything else, that makes him look so rough," the girl declared.

"He has had bad luck," said Craig, "and I would like to do what I can to help him. We've been in the bad-luck boat ourselves, and I'm not sure we're out of it yet. We may be glad of a little help now and then, too. Of course, I can't say much to recommend him. He worked well this morning, and seems to know how to make himself useful about the farm. I can tell Mr. Hunter that much, and he can give him a trial if he's in need of help. I'm going over to Hunter's with him as soon as he's shaved."

Then Craig carried the hot water to the barn. He did not remain there long, but came back to the house to break up some ice, for Jessie was preparing to freeze some cream. It seemed as if they had been working scarcely a minute, but it was in reality a quarter of an hour, when a clatter of hoofs aroused them.

"What's that?" demanded Jessie.

She and Craig sprang to the door just in time to see the tramp dash out of the yard on Mollie's back. He called something, and beckoned with his hand, which the two accepted in speechless amazement as some sort of defiance.

Chapter IV.

"Oh, he is gone, Craig! He has stolen Mollie, and gone!" cried Jessie, in alarm. "You must go after him! Take Prancer, and go after him quick!"

"Prancer could never catch him," answered Craig, slowly. He was so astonished at this action of the tramp's at the very moment when they were beginning to think well of him that he scarcely knew what to say or do. "He must be crazy to steal Mollie. Don't he know he'll be caught and sent to prison?"

"Standing here the way you are will never catch him!" returned Jessie, impatiently. "He is nearly to the corner now, and will soon be out of sight. There! He is turning now! Oh, if Mr. Hunter would only see him and stop him!"

"Why, he is going into Hunter's!" exclaimed Craig. "Oh, their house is afire! See! Near the chimney! He has gone to tell them!" Then a great change came over the two regarding the tramp. "He hasn't stolen Mollie at all," said Craig. "Why, that is what he meant when he called back 'fire!' I thought he was daring me to shoot at him!"

"Yes, yes!" repeated Jessie. "We have wronged him. Oh, the poor Hunters! It's awful to have your house burn down!"

"They'll need more help," said Craig, quickly. "I'm going; you tell mother." And away he dashed across the fields.

There were hills and hollows that intervened between Craig and the kindling fire. In the lowland he was shut from the view, but as he ran over the crest of each hill he saw how matters progressed at his neighbor's. A small column of smoke rose from the roof near the kitchen chimney, and tongues of angry flames leaped after. At first no one had been stirring at Hunter's. But when Craig climbed the second hill all this was changed.

He saw Mr. Hunter in the yard now, lifting a ladder to the roof. Frazer, who had given the alarm, was drawing water at the well. One of the smallest Hunters was ringing the farm-bell furiously. The women were crying "fire," and running about with pails.

As Craig climbed the third hill he saw that water was being thrown in pailfuls upon the flames. Here and there, up and down the country road, neighbors were coming, each on the run and carrying one or more buckets. The smoke had changed now from a reddish gray to a dull black, and the flames had withdrawn from sight.

On and on Craig dashed as fast as his short limbs could carry him. Would they be able to put out the fire? What would the Hunters do if their home burned to the ground? Of course, the neighbors would take them in. Some would probably come to his own home. He certainly should invite them; his mother would wish him to. He was glad Frazer had not proved the thief they were so quick to think him.

Craig climbed the last hill, panting hard. The smoke had certainly decreased very perceptibly. It now seemed as if they might extinguish the fire with small damage to the house. He ran across the road which separated their farm from the land where the Hunters had their home. Other men were ahead of him, and, with Craig, joined the line which passed buckets of water up the ladder. From his position he could not know what headway was being made against the flames; but after a time the buckets were not taken from him so rapidly; then there ceased to be a demand for them altogether.

"It is out! The fire is out! They have put it out!" were the words which the women took up and passed from mouth to mouth.

Craig moved about among the crowd that had assembled, and listened to the conversation. He looked for Frazer, but at first glance did not recognize him, such a change had he wrought in removing his beard. Hunter was shaking hands with the stranger and thanking him for his timely warning.

"How came he with your horse?" Hunter asked, as he discovered Craig by his side.

Explanations followed. Craig did not speak of the moment when he and his sister had doubted the stranger, and Frazer never knew but what he had been understood from the first. Hunter was so grateful for the assistance that had been rendered that he readily promised to give him work on the farm.

Craig went round by the kitchen to look at the hole burned in the roof and whatever other damage the fire had done. There he found his sister, who had followed him more slowly across the fields. Every one was marveling at the narrow escape from a serious fire.

Jessie came and whispered to Craig. "You haven't said anything to any one about what we thought?" she questioned, fearfully, in regard to Frazer.

"No," answered Craig.

"Well, let's don't."

"Mr. Hunter is going to give him work."

"Oh, I'm glad!"

"Isn't it time we were going home?" asked Craig, presently. "That ice I broke up for you will all be melted."

"There's more where it came from," she returned, quietly.

Craig laughed. "Yes; we can better afford to lose a little ice than Hunters could their home!"

"Oh, I'm so glad it could be saved!" she said.

"You'll have a chance to ride home," Craig told her, as they moved about the furniture which had been carried into the yard. "Mollie is tied over yonder at the fence."

"Isn't—Frazer going back to our house?"

"He is coming over to-night for his belongings. Hunter has plenty of work for him to do to-day."

"I'm so glad he will never know what we thought of him when he rode out of our yard on Mollie's back," said Jessie again.

"You had better keep still or you'll be telling him now."

"Why," cried his sister, clapping her hand over her mouth and glancing fearfully about, "where is he?"

"Sh! There by the steps. I don't wonder you don't recognize him. I didn't myself at first. He makes a fairly good-looking fellow with a clean face. Shall we go now?"

"I'm going to speak to him first," said Jessie, with a little daring in her voice. And approaching him, she asked, "What do you think of Mollie as a saddle-horse, Mr. Frazer?"

"Well—she's a good 'un," he returned, pleased that Jessie had noticed him. "I hope I didn't run her too hard!"

"Oh, I guess not."

"I ought to make some excuses for takin' her as I did maybe—"

"None at all, Mr. Frazer. The result of the fire is your best excuse. I am glad you were able to do what you did."

Then Jessie was ready to return home. Seated on Mollie's back, she walked her horse by Craig's side along the country road, talking of the morning's adventure and their plans for the future. After reaching the house they redoubled their efforts, for the interruption had put them back considerably in the work. The day promised to be warm, and Jessie wished to get her cream frozen; and besides there were a couple of cakes to bake. Craig devoted the remainder of the forenoon to helping his sister, but after dinner he felt that work in the field demanded his attention.

The front yard looked very inviting that warm afternoon. The table spread under the canopy, with the cool maples shading the whole; the chairs companionably placed in cozy nooks; the croquet set and the hammocks, each in its way was suggestive of pleasureable moments. Jessie had seized a half-hour for rest, and thrown herself, with book in hand, into one of the hammocks. Dressed in a soft summer gown, she was the crowning feature in this delightful spot.

After a time voices drew her from the book, and listening, she heard the first step one takes in alighting from a bicycle. Springing lightly from her hammock, Jessie stood in readiness to wait upon her guests. A lady came toward her, while a man remained to push the wheels into the rack which Craig had placed to hold them.

"Have you some real good cream?" the lady asked, smiling, and placing peculiar emphasis on her words.

"Yes'm," returned Jessie; "and I think you will agree with me after you have tried it."

"Well, you may fetch us some."

"And some cake?"

"If you please."

Jessie hurried away to fill the order. After she had brought the cream and the cake she returned to her chair at a little distance. Here she would not seem to be listening to the conversation, but still could wait upon them should they wish anything more.

"M—m! John, this is delicious!" cried the lady. Then turning to Jessie, "You make your own cream, do you?"

As she seemed to wish to talk with her, Jessie came and stood near them. Her guest was full of questions, all of which Jessie was ready and willing to answer.

"You weren't here last summer, were you?" she asked next. "My husband and I spend our summers in this vicinity—that is, three miles over this way, isn't it, John? I'm all turned around as to directions when in the country. We were along this road a number of times last summer, but I don't remember this place at all."

Jessie explained that it was a new venture with them, and expressed a hope that they would come again.

"Oh, we shall!" declared the wife. "This is Friday." She fell to calculating. "We can't come to-morrow. Will we come Sunday, John? No—but Monday! Now that I've tasted your cream I can't live beyond Monday without some!"

Her calculation opened up a question of conscience with Jessie that troubled her long after they had gone. In all the anticipations which she and Craig had given the matter they had never once thought of the Sunday trade. How were they to meet it?

Chapter V.

Both Craig and Jessie had been taught that it was wrong to carry the week's work into the Sabbath, and they were very conscientious about the matter. When Craig had finished his chores at the barn, and the supper dishes were put away, Jessie came to him with the question which had troubled her so much that afternoon.

"What are we going to do about Sunday, Craig?" she asked. "Is 'Wheelers Welcome' to become a Sabbath-breaking institution?"

"Why, certainly not," returned her brother. "What do you mean?"

"Well, two of our guests to-day rather promised to come here Sunday for ice-cream. I had never thought of it before. But it came to me all of a sudden then, What were we to do? Are we to stay home from church and Sunday-school and work the same as on other days, or— What are we to do?"

"Why, we will close up our refreshment business Saturday night, the same as any merchant does his store," answered Craig.

"But can we do that?" questioned his sister. "People won't look at it that way. One has got to eat on Sunday the same as any day. And you know there are always more going by here on their wheels on Sunday than on any two or even three days during the week. What are we to do? Turn them away if they ask for something to eat? I should feel mean to do that, for they might be very hungry. But I can't think of working for money on the Sabbath. I don't know what to do."

Craig began to feel a little of his sister's perplexity.

"I guess there's some way we can do," he said, thoughtfully. "I guess we won't have to give up the business. It isn't right to encourage or countenance pleasure-riding on Sunday, and we won't do it. Father didn't use to like it, and mother wouldn't consent to it at all. People who keep eating-houses in the city must do something of the kind, I should think."

"That's what I was thinking!" declared Jessie. "I wonder if there aren't any consistent Christians among them!"

"I guess they don't stop to think about it the way you have."

"But that's the right thing to do—to think about it. Day after to-morrow is Sunday. What are we going to do about it?"

"As you say, people must have something to eat on Sunday," began Craig.

"They ought to stay at home and get it, then," said Jessie, very positively.

"Supposing they were boarding?" suggested her brother.

"Well, where they are boarding is their home. Let them stay there. If we should have any regular boarders I should feel that it was perfectly right, of course, to get their meals for them on Sunday, just the same as for ourselves. But I don't believe it is right to make ice-cream and sell it out there under the maples on Sunday."

"No, I don't, either; and we won't."

"Where are we to draw the line?"

"We will bring everything into the house Saturday night. The sign is fixed so that we

can take that down, and then people won't be stopping here. We won't make any ice-cream Sunday, so of course we won't have any to sell on that day. If any one who is traveling far comes along here and wants to stay over Sunday with us, why, we will keep them. That would be all right. We will go to church, just as we always have, and if they want to they can go with us."

"We'll lose the best day in the week for making money," said Jessie, with a little sigh. "And there are lots of folks who would say we are awfully foolish."

Jessie rather talked on both sides of the question, but not because she had two minds on the subject. Through a free discussion she hoped to reach a conclusion that would satisfy their consciences.

"But you don't think we would be foolish?" questioned Craig.

"No."

"And if we give up the Sunday trade I guess it will be made up to us through the week," he continued, confidently. "I don't believe we will lose anything by it in the end. How much have you made to-day?"

Jessie counted her receipts almost every hour in the day, so there was not a moment when she could not give the exact amount.

"We've taken in a dollar and eighty cents to-day," she answered, with a note of pride in her voice. "It is creeping up, I tell you! Those two men that stayed to supper helped quite a bit—fifty cents. I think when the season is fully open we ought to take in four or five dollars every day—and maybe more. It isn't all profit, but most of it is pay for our work, so it is nearly all clear money to us."

"It is a great deal better than not to do it at all," said Craig. "We sha'n't have quite so much butter to sell if we freeze our cream, and the eggs you will use in cakes and on the table; but it will bring us much more money than to sell them in the old way."

While they were talking some one turned in at their gate and came up the path toward the house. Jessie recognized through the gloom the form of Frazer.

"Our tramp," she whispered to Craig, for among themselves they had come to style him such. "He has come for the bundle which he left in the barn."

Frazer reported himself well pleased with his new position. They talked of the fire and of the day, which had seemed a long one. Then Craig went to the barn with him. Frazer had taken a strong fancy to Mollie after the ride that morning on her back, and he went at once to the stall to stroke her sleek neck and tell her what a fine horse she was. This act went a long way toward confirming Craig in his opinion of the fellow.

"Well, now, little hoss," said the tramp, when he came to go, "if ye ever have a job where ye want another man to help for a minute, remember I'm yer neighbor, and would be mighty glad to do you a good turn. I'm not one to forget them that's done a good thing by me. My respects to the ladies, and—good-night!"

The next day the receipts at "Wheelers Welcome" climbed above the two-dollar mark, and there was accordingly rejoicing at night. It being Saturday, Craig put the front yard in its former shape, and they were permitted to spend a very quiet Sabbath. All three attended church in the little meeting-house at the Corners, three miles distant.

Monday morning Craig helped his mother and sister about the house. In addition to the regular work there was the washing, which was larger because of this new departure. In the afternoon Craig worked in the field. This soon came to be the usual routine at the farm. There was fresh cream to freeze every morning, and chairs to be carried out and the front yard put in order; the heavy work Craig always attended to.

In the evening Jessie would tell him of the patrons she had during the day, and there was always his advice to ask or some little incident to relate. With the keenest interest they watched their little hoard of money grow from day to day. There was the interest that was overdue that was on their minds like a continual weight. If this could be paid then it would seem as if they were making some headway.

"Two horses are more than we can afford to keep," said Craig, as he sat with his mother and sister one hot June evening. "With the light farming that I am doing one horse is all that is necessary. If we can sell one to good advantage I think we ought to."

"Oh, not Mollie!" cried Jessie. "We can't spare Mollie!"

"No; but I think we could get along without Prancer," said Craig. "I have worked the horses one at a time every other day for two weeks, and only half a day at that. If we could sell Prancer he ought to bring a hundred and twenty-five dollars. That would pay the overdue interest and help to settle many of the little bills which we owe in Hillsborough."

"If you think it is best," replied Mrs. Wheeler, "you have my permission to sell Prancer."

A few days after this Craig reported, "I have been talking with Mr. Hunter. He will buy Prancer, and pay the price I ask. I would rather sell to him than to any one else, for then the horse will hardly be leaving the place. And if I should ever work the whole farm, as I intend to some day, Mr. Hunter will give me a chance to buy him back; and in the meantime he will hire him out to me any day when I need two horses for a bit of work."

Prancer was accordingly turned over to their neighbor, and Craig handed the money which he had received to his mother for safe keeping. As Frazer was going to Hillsborough, they sent word by him to Mr. Atkinson that the money was ready for the overdue interest, and asked him to stop at their place when he might be driving by.

Mr. Atkinson was very prompt in meeting his engagements. Mrs. Wheeler gave him a chair when he called, and after a few words went to get the money. She did not stop for a light, for she could put her hands right on the bills in the dark.

She repeated an astonished "Why!" on failing to find what she sought at the first trial. This was repeated with added emphasis and a note of alarm as the object of her search still eluded her deft fingers. With growing alarm at last she went for a lamp.

"It is gone! The money is gone!" she had to exclaim, as the light revealed the truth.

[TO BE CONTINUED]

THE COCOA-BEAN

The cocoa-bean, which is the fruit of the cocoa-tree, is the crude material used for the manufacture of chocolate, cocoa, broma and other like preparations. Years ago, in this country, there was quite a large consumption of the bean in the shape of cracked cocoa, and of its husk, under the name of cocoa-shells. In recent years, however, the great consumptive increase has been in the direction of chocolate, prepared cocoa and Broma.

A marvelous and perhaps the greatest increase in the use of preparations from the cocoa-bean has been in the direction of confectionery. Chocolate in the form of bonbons and other candy combinations is one of the principal articles offered by confectioners, and, in fact, it is found in many other stores and at the innumerable street-stands and slot-machines. Even the theater caters to the popular taste by offering bonbons as a gratuity to patrons. Then there is the immense use of the article at home in the preparation of chocolate caramels and the well-known fad of "fudge." This form of consumption is evidently on the increase. Moreover, there is the universal and growing use of chocolate in flavoring for cake, cream and other eatables.

To indicate the present volume of chocolate and cocoa consumption in this country, it may be stated that the total imports of crude cocoa for the nine months ending with March, 1900, were 31,775,587 pounds, valued at $7,378,820. Of this total, the principal receipts were as follows: From Brazil, 6,976,302 pounds; other South American points, 8,543,484 pounds; British West Indies, 7,276,786 pounds; other West Indies, 759,111 pounds; Great Britain, Netherlands and other European points, 6,912,141 pounds. This would indicate an annual consumption at present of about 45,000,000 pounds of the prepared products in our country. In 1865 the total consumption did not exceed 2,000,000 pounds. In 1896 it reached 26,319,275 pounds, and a year later it had increased to 27,000,000 pounds. In 1899, although crude cocoa was in short supply, the increase was nearly 2,000,000 pounds. The estimated consumption in Europe is 102,000,000 pounds.

One of the largest cocoa plantations in the world is located at Nicaragua, and is owned by a French firm, whose chocolate is known all over the world. Their works at Noisel turn out about 40,000,000 pounds of chocolate a year, and their employees number 1,500. The tin-foil in which the cakes of chocolate are wrapped costs alone $100,000 per annum.

Since competition has reduced the price of the American-manufactured article there is less incentive for foreign manufacturers to enter this market, and this, with the fact that there is now a duty of two and one half cents a pound on the manufactured product, has caused a marked decline in imports of chocolate preparations. Last year they did not exceed 1,200,000.

The great and increasing demand for cocoa-beans is directing attention to the comparatively small amount that is imported from Cuba and Porto Rico, and to the opportunities of profitably increasing the production of those islands by developing the plantations through scientific cultivation.—Boston Commercial Bulletin.

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OUR SUNDAY AFTERNOON

THE HEROIC AGE

He speaks not well who doth his time deplore,
Naming it new and little and obscure,
Ignoble and unfit for lofty deeds.
All times were modern in the time of them,
And this no more than others. Do thy part
Here in the living day, as did the great
Who made old days immortal! So shall men,
Gazing back to this far-looming hour,
Say, "Then the time when men were truly men,
Though wars grew less, their spirits met the test
Of new conditions; conquering civic wrong;
Saving the state anew by virtuous lives;
Guarding the country's honor as their own,
And their own as their country's and their sons';
Defying leagued fraud with single truth;
Not fearing loss, and daring to be pure.
When error through the land raged like a pest
They calmed the madness caught from mind to mind
By wisdom drawn from eld, and counsel sane.
And as the martyrs of the ancient world
Gave death for man, so nobly gave they life;
Those the great days, and that the heroic age."

—Richard Watson Gilder.

THE LUXURY OF BEING POOR

If we do not always relish being poor it is because we do not appreciate our blessings. I am sorry for any one who cannot afford to be poor. Certainly to enjoy the luxury to the fullest extent one must be a gentleman or a genius. But even without either of these advantages there is cause for thanksgiving in a modest amount of poverty. If you are poor, think of the endless burden of impediments of all sorts you escape from day to day—houses, servants, tailors, teas, your own dignity—a thousand cares and annoyances which press upon the rich and crush them back into the fat clay from which they came. There are rich people who are good, and there are rich people who are happy, but they are so at how great a cost! It is the old story of the savage over again. "Why don't you work?" "What for?" "So that you may be rich." "Why should I wish to be rich?" "So that you need do nothing." "But I do nothing now."

If you are rich you cannot be free. You have obligations you cannot shirk. But the greatest freedom of the poor is the freedom of spirit. If I am poor I am not obliged to be always on parade, always living at a tension, always presenting an appearance. My outward circumstance is so insignificant that I can forget it altogether and occupy my mind with the higher life. That is why it is good for a genius to be poor—he has nothing to divert him from his noblest self. He may have the luxury of a free and untrammeled life. Voluntary poverty, such as that of the ecclesiastical orders, is a great positive virtue and a means of happiness. The mere act or renunciation in itself is no virtue. If you forego the pleasure of a new gown, and still keep hankering after it, that is no virtue, and does you little good. But if you abstain from buying it, saying to yourself, "Thank heaven, I am free from one more encumbrance!" you are already on the road to the celestial city.

In order to have the goods of this world you must be strenuous, unsleeping, given to hard work. You must will and energize day in and day out. You must impose your way on others, and bend them to your purpose. You must strive, and never rest (unless, of course, you are dishonest, and make your money instead of earning it). And for most people who are cast into the world with responsibility already upon them such a life of endeavor is necessary. Others may be depending upon them—the aged, the helpless, the unfortunate. They cannot shun the demands of humanity. They dare not indulge their own love of freedom. They cannot afford to be poor.

Cease to worry. Do not try to reason yourself into submission. Just dismiss your will entirely. Let it go out and play. Forget it. Then you may truly begin to live the greater life. Your own inner, truer personality will have time and space to grow. You will breathe more freely and feel yourself a part of a larger life. If poverty only makes us strive the harder (not work, but strive), then it is a curse and not a blessing. But that depends on our own mind. To be able to enjoy this beautiful earth and our strange, rich, wonderful life it is necessary to be free, to keep a spirit untrammeled by outward things and untarnished by error. To be soured by poverty or to be hardened by it is a mistake, an error of thought. Instead of enjoying our life, we are cramping ourselves. It is just as if we were set at a feast and sulkily refused to enjoy a few dishes because we could not reach everything on the table and make ourselves sick, like foolish children that we are.

But children don't mind poverty. It is not until they grow and cultivate their wilful individuality that unhappiness and discontent overtake them. It is in their disregard of circumstance that we still may imitate them. They enjoy being barefoot and having nothing, until some mistaken grown-up makes them ashamed of it.

Oh, artist, know that unless you can afford to be poor you can never reach the full height of your power! You can never abandon strife and insistence and your own small worldly will. You can never be merged into the greater sweep of being whence inspiration flows. Do you tell me competition and struggle are necessary to make you produce your best? If that is the mainspring of your art, then your art is worthless. You are only an artisan. If you were an artist you would sit down in supreme contentment and rags, painting for the joy of it alone. If you could afford never to sell a picture, your work would be ten times as good as it is, and it would grow better every year. The brooding soul ripens; the anxious mind withers and blights. It is not good for you to live richly in cities, because it is hard to deny yourself. You must first be poor and lonely and dejected; then you must think of the luxury of your freedom; then you will enter into possession of yourself; then you will be glad and free and creative and great. There is no other gladness; there is no other freedom; there is no other greatness.—Bliss Carman, in Boston Transcript.

HEAT-STROKE AND SUNSTROKE

Dr. Moussoir, a French naval surgeon, describes the difference between sunstroke and heat-stroke, concerning which there has hitherto been some confusion. Heat-stroke is a pathological condition induced by the action on the whole surface of the body during a sufficiently prolonged period of temperature exceeding one hundred and four degrees Fahrenheit, whereas sunstroke is produced by the action on the cranium during a period, which need not necessarily be long, of sufficiently intense solar radiation. The high temperature causing heat-stroke may be either moist or dry and may emanate from any source. The moist heat of a stoke-hole on board ship, for instance, brings on heat-stroke by preventing the evaporation of perspiration, while a dry heat, by shriveling up the skin into a parchment-like substance, prevents the exudation of perspiration. Heat-stroke comes from superheated blood, which reacts on the nerve-centers. It usually comes on gradually, but the victim may collapse very suddenly. Stokers can endure a damp, hot atmosphere in narrow, ill-ventilated spaces when working naked, or nearly so, whereas soldiers on duty in the open air are overcome by heat-stroke from the increase of caloric underneath their thick clothing, which also hinders the evaporation of sweat. The chemical rays emitted by the sun can pierce through white clouds freely, but are almost entirely arrested by black substances, and partially so by red. This explains the immunity from sunstroke of negroes and people with swarthy complexions, and the diminished liability to it of the ruddy. Covering the head saves one from sunstroke, but, as in the case of thick clothing, a helmet may help in developing heat-stroke. Observations with thermometers show that the temperature inside a regulation helmet may be ten degrees Centigrade higher than in the shade of a veranda. In the matter of treatment, Dr. Moussoir insists on excitation and antipyrin, together with ice, cold affusion and the rest of the stock remedies. Good advice in case of sun or heat trouble is contained in the injunction familiar to those who have lived in tropical countries: "Don't touch alcohol, and keep as cool and as still as you can as long as you can."—Selected.

VALUE OF SLEEP

Sleep is not always restful. The man who retires just after a hearty meal may at once fall into a heavy sleep, lasting ten hours, but the entire system is in a state of great activity. Digestion, assimilation, absorption, excretion are going on at a high pressure. The blood, instead of being withdrawn from the brain, is there in excess, so that the unconsciousness is practically a narcosis, even though no drugs have been employed. The heart-stroke is quick and heavy, the breathing irregular and the extremities cold. The dreams are vivid, reflecting in their unpleasant character the general discomfort of the sleeper, who sighs, groans and mutters as he twists and tosses from side to side. Every turn on the bed means muscular work enough to walk across a room. To toss about all night is equal to a day of hard manual work. Ten hours of this sleep is ten hours of work. There is a heavy loss of energy, and the sleeper awakens nerveless and exhausted.

It will be readily seen, then, that how much sleep a man requires depends largely upon how he sleeps. He who sleeps normally may be well and strong on six, five, perhaps even fewer hours of sleeps normally may be well and strong ity of people will be apt to find even eight or ten hours inadequate. The question is, rather, how to sleep than how long to sleep—the art of sleep rather than the abolition of sleep.

There are people who never rest. Sitting or lying down, as well as walking or working, their muscles are active. On the other hand, there are some who can lie down, relax all the muscles, stop thinking, and rest in this way without sleeping for half or quarter of an hour. One may rest without sleep, just as one may sleep without rest.

Sleep is very largely a matter of self-command. "How far away are the enemy?" asked Napoleon. "They will reach us in twenty minutes," was the answer. "Then I'll have twenty minutes' sleep," he remarked; and he slept calmly and restfully. Dr. William Pepper, of Philadelphia, had the same power. So had Von Humboldt. These men had mastered the art of sleep.

Sleeping is an art—an art to be acquired, happily. To learn that art is to know again the refreshing, unbroken sleep of childhood, before repeated violations of nature's laws had disordered the beautiful body which God gave to each of us.—Health Culture.

A PRAYER

BY HANNAH MORE

Blessed be the Lord for all His mercies; for giving me food to eat and raiment to put on, and for delivering me from many evils which my sins have justly deserved. I thank Thee especially, O Lord, for the gift of Jesus Christ, Thy Son. I confess before Thee my exceeding guilt, and I pray Thee, for Christ's sake, to pardon my offenses, and to receive my soul when I die. I beseech Thee also, for His sake, to grant unto me the help of Thy Holy Spirit, that I may be enabled to follow my Savior's example, and to do whatsoever He hath commanded. May I be patient, humble, kind and merciful; endeavoring to do good unto all men, and forgiving those who trespass against me, even as I hope to be forgiven. Grant me grace this day diligently to perform its duties, and to be true and just in all my dealings, doing unto others as I would that they should do unto me; and help me, O Lord, to restrain my tongue, and to subdue my evil tempers, and to live in temperance, soberness and chastity. Save me from those sins which in times past have most easily beset me; strengthen me, O Lord, for all that awaits me; carry me through all my difficulties and troubles, and help me, day by day, to grow in grace, and in the knowledge of my Lord and Savior. These prayers I humbly offer up in the name of Jesus Christ! Amen!

YOUR PART IN LIFE'S MOSAIC

The crowd was looking at the facade of a fine cathedral, from the upper portion of which the workmen had just removed the screen behind which they had been at work for years upon one of the most extensive and wonderfully rich and exquisite mosaics to be found upon or within any cathedral of the Old World. Here was a picture with all the softness and the wonderful blending of color to be found in an oil-painting, a picture covering hundreds of feet, a most perfect specimen of art, which the storms of a thousand years could not tarnish or wear away. It was made of millions of pieces of stone of different hues and shapes, and each carefully and most skilfully adjusted to those about it. A grand picture to stand there for ages, a combination of very trivial things. And each little stone, so carefully polished, so nicely fitted, so tastefully adjusted in color, was a most important part of the whole; and so each little stone had in keeping the character of the picture.—The Sunday-School Times.

THE BOY WANTED IN BUSINESS

"What kind of a boy does a business man want?" was asked of a merchant.

He replied, "Well, I will tell you. In the first place he wants a boy who don't know much. Business men generally like to run their own business, and prefer some one who will listen to their way rather than teach them a new kind. Second, a prompt boy, one who understands seven o'clock is not ten minutes past. Third, an industrious boy who is not afraid to put in extra work in case of need. Fourth, an honest boy—honest in service as well as matters in dollars and cents. And fifth, a good-natured boy, who will keep his temper, even if his employer does lose his now and then."—Augusta Chronicle.

MEDICINE OR POISON?

BY REV. F. W. FARRAR, D.D.

The sorrows of life come to all, though they seem to come in very different measure; but the point for us to observe is how differently they affect the wise and the foolish. Some men murmur against God's dealings, and even against his just punishments; they resent his chastisements with an unsubmissive anger as mad as it is impotent. Others accept God's dealings with them, knowing that what he doeth is well. They accept them, it may be, with bowed head and weeping eyes, yet with the heart of a weaned child. To these the miseries which God sends come as a healing medicine; to the others they come as a maddening draught.

THE TRUE PATRIOT

He cares too much for his country to uphold her in any wrong.

He loves his country, but he loves still more the kingdom of God.

He does not reserve his patriotism until he has a chance to die for his country; he lives for her.

He does not urge selecting the best men for candidates, and then refuse to serve when called upon, though at a cost of time, money and inclination.

He does not vote for bad men, and then plead that he did not know they were bad. He takes time to investigate the characters of candidates.—Selected.

SMILES

COMMENCEMENT-TIME

Sally's in the parlor. Listen, you can hear.
She's oratin' all about "Woman an' Her Sphere."
Henry's in the stable, talkin' to the hay,
Shoutin', "Rome was not, sirs, builded in a day!"
Over in the medder neighbor Spriggin's Nate
Saws the air, and hollers of affairs of state.
Thompson's boy, Elisha, 's in the timber lot,
Readin' from a paper on "The Trend of Thought."

Abraham McGinnis, down there in the brush,
Scatterin' the silence with his wordy rush,
Yellin', "Feller citizens, can it be denied—
Beyond the Alps is It'ly, just the other side?"
Silas Braddock's Rufus, yonder on the hill,
Speechifyin' strong on "Workin' with a Will."
William Wiggins stands there, on a stump, and busts
All the air around with "How to Deal with Trusts."

Some one in the corn-field, kickin' up a fuss
'Bout a gladiator, name o' Spartycuss.
Henry Clay ain't in it, Daniel Webster's beat,
Patrick Henry's simply knocked plumb off his feet.
Gemony! It's noisy here from dawn till late—
Scholars gettin' ready for to graduate.
Tromped the crops completely, scattered all the birds,
Woods is full o' speeches, air is full o' words.

—Baltimore American.

AN ADAGE

There's an ancient adage under the sun—
"Two is company; three is none!"
But I fling a scoff at the truth of it;
'Twas by a fool in his folly writ!
For comrades never went footing by
Dearer than love, and joy, and I!

—Clinton Scollard, in Life.

FIRMNESS AND OBSTINACY

How obstinate a woman is,
How firm a man of sense!
These words may sometimes mean the same—
Sex makes the difference.

—Judge.

The woman who forgives easily has a great deal of it to do.

HER NEW BONNET

I'VE quit smoking until I have paid for my wife's Easter bonnet," said Jones, sadly, as he looked longingly at the choice cigars in the show-case. "Several weeks before Easter Mrs. Jones began hinting about a new bonnet, and I sat down on it from the start, as, the way things are with me, I simply could not afford it. She shed tears and made a scene, but I held my ground and wouldn't hear to it. Finally the argument ended in a compromise, I agreeing to stand for the trimming over of one of her old bonnets.

"Well, a few days before Easter I chanced to pass a street-fakir who was selling toy mice, which, when wound up, ran around as natural as life. Thinking to have a little fun with my wife, I bought one and took it home. Just before retiring for the evening I wound it up, and, watching my chance when she was not looking, I placed it on the floor. When she discovered it she gave a shriek and jumped upon a chair. Unfortunately for me, the chair that she jumped upon was one that she had placed her retrimmed bonnet on, which had been sent back from the store that day. She planted both feet squarely within it, and when her scare was over the bonnet was ruined beyond all hope of repair. While she was weeping over the wreck I secured the toy mouse and hid it, not caring to have her know the part I had taken in the matter. Well, the grief of my wife at the loss of the bonnet refused to yield to any of my consoling remarks, until I promised that she might have the new bonnet she had set her heart on in the beginning. If it had ended right there I wouldn't have cared so much, as I could only blame myself. But when I chanced to overhear a conversation that she had with her mother, I simply wilted. It seems that my wife had found the toy mouse in my pocket, and suspecting the trick that I was up to, she had placed the old bonnet on a chair where she could jump on it with both feet, and thus force me to buy the new bonnet that she wanted."—Detroit Free Press.

Church—"Too much light is had for the eyes, you know."

Gotham—"Perhaps so; but no man ever lost his eyesight from looking on the bright side of things."—Yonkers Statesman.

AN ABSENT-MINDED PASSENGER

The young woman's mind was probably away off in the land of cut-on-the-bias, and yokes, and flarings, and plaitings, and appliques, and ruffles, and things like that, whatever they may mean. Anyhow, when she got on an up-town Ninth-street car the other afternoon she dreamily opened her pocketbook when the conductor came around for her fare, stuck a gloved finger and thumb into one of the compartments of the same, extracted a couple of foulard samples, and with a far-away expression still in her eyes handed them to the conductor. The conductor was a middle-aged man. He smiled and waited for the young woman to come out of her trance. But she held the foulard samples out to him, with her eyes on vacancy, until the conductor, still grinning, had to fetch her back to earth.

"Yes, they're very pretty, miss," he said, "and I'd like to get my wife a dress off that piece on top, but she's—"

The young lady blushed like a red-hot stove-lid, dug into another compartment of her pocketbook for a ticket, and she looked real embarrassed when the brutal male persons across the aisle grinned.—Washington Post.

A NEGRO'S ANSWER

An American writer tells a good story of his college-days. It relates to a negro gardener, a jolly fellow, with whom the boys used to have considerable sport. Sometimes he would floor them with his repartee.

One day in spring Sambo had been burning the college green in order to get rid of the old, withered grass. A freshman came along, and, thinking to have some fun, shouted, "Say, there, Sambo, you ought not to burn that stuff!"

"Why?" inquired Sambo.

"Because," replied the freshman, "it'll make that grass as black as you are."

"Well, massa," retorted Sambo, "dat's all right. Yes, dat's all right. Never you fear; dat 'ere grass'll come up and be as green as you are!"—London Answers.

NEW LIGHT ON HISTORY

Nero, fiddle in hand, sat upon his throne, when a little band of captives was led before him.

"Now," he roared, in royal tones, "you have your choice between hearing me play a study in cadenzas with the middle finger on the E string or being burned alive at the matinee at the Colosseum."

"Bring on your torches!" shouted the desperate captives.

Later on Nero fiddled and burned things, and conducted himself in an outrageous manner.

"I hate to do this," he explained, "but they depend on me for some warm scenes in 'Quo Vadis.'"—Baltimore American.

SHOPPING IN SCOTLAND

It has been said that the Scottish dialect is peculiarly powerful in its use of vowels, and the following dialogue between a shopman and a customer has been given as a specimen. The conversation relates to a plaid hanging at the shop door.

Customer (inquiring the material)—"Oo? (Wool?)"

Shopman—"Ay, oo. (Yes, of wool.)"

Customer—"A' oo? (All wool?)"

Shopman—"Ay, a' oo. (Yes, all wool.)"

Customer—"A' ae oo? (All same wool?)"

Shopman—"Ay, a' ae oo. (Yes, all same wool.)"—London Telegraph.

A PATRIOTIC SCOTCHMAN

A Scotch settler in Victoria was arrested for stealing a set of bagpipes from a musically minded Chinaman. When the case came up for hearing the defense was ready and fluent.

"I'm no saying," said the Scot, "that I did na tak' the pipes, but I hold that I was parfitly justivit in rescuin' the national eeinstrument o' my ain kintra frae the hands o' a yellow-skinned chow like yon wha kames his wee pickle hair like the tail of an auld coo. I'm willin' eneuch tae pay the fine, ye ken, but I'm dashed if I'll gie bach the pipes tae siccan a jaw dicefaced birkie tae desecrate ony mair."

HIS REASON

"What is your favorite recitation?" asked the hostess.

"'Curfew Shall Not Ring To-night,'" answered Mr. Blykins, with a promptness which was almost defiant.

"Why, nobody recites that any more!"

"That's why I like it."—Washington Star.

COLUMBUS AND THE EGG

Columbus, having promised to stand an egg on end, failed at the first trial, but he reversed the egg and it balanced perfectly.

"Tell me, Chris," said King Ferdinand, "why did you turn the egg over?"

"Because, Your Majesty, the chicken could not stand on its head."

It is said that Columbus got the idea of discovering America from this incident. But, of course, theories are not always what they are cracked up to be.—Baltimore American.

SIMULATION UNNECESSARY

"You think I had better simulate insanity?" said the accused man.

"I do," answered the adviser.

"What's the best way?"

"Well, you're no actor, of course. If I were you I'd get some war maps of South Africa and repeat the geographical names over and over. In the course of a short time I don't believe you'll have to pretend at all."—Cassell's.

LIFTING THE MASK

Editor—"And did you write this essay all by yourself?"

Literary aspirant—"Yes; it is all my own work."

Editor (recognizing the source of it)—"Well, then, Charles Lamb, I am very much pleased to meet you. I thought you died some fifty years ago!"—Collier's Weekly.

A CONTRADICTION

"Do you believe every man has his price?"

"No, sir," answered Senator Sorghum; "that's a libel on human nature. Every once in awhile you find a man so rich he doesn't need any more money."—Washington Star.

HANNIBAL'S ORATORY

"Forward, my brave men!" shouted Hannibal. "Beyond the Alps lies Italy!"

"Bah, you talk like a sweet girl graduate!" growled a Carthaginian colonel on the general's staff.

Later on Hannibal completed the resemblance by discovering that Rome was not built in a day.—Baltimore American.

FULLY EXPLAINED

"Yes, Uncle Jim is going to take me to Paris."

"But I thought you said your Uncle Jim was a poor man?"

"My Uncle Jim is a Kansas City hotel-keeper, and we are not going until after the Democratic convention."—Cleveland Plain Dealer.

NEEDED ROOM

Mrs. Grumps (looking over new house)—"What in the world is that vast attic for?"

Mr. Grumps—"It's to hold the things that you buy and can't use."—New York Weekly.

THE MOTORMAN'S MISCALCULATIONS

1.—Motorman—"Out of the way! Out of the way! Can't stop! Fly for your life!"

2.—"See here, young man—"

3.—"The next time you run into any one, be sure it's not Slamdow, the strong man."—Boston Herald.

BARGAIN OFFERS

In Connection With the Farm and Fireside.

For 35 Cents

We will send the Farm and Fireside one year and

One Magnificent Picture.

(When this offer is accepted no cash commission will be allowed and the name cannot be counted in a club)

For 40 Cents

We will send the Farm and Fireside one year and your choice of any ONE of the following premiums:

Gleason's Horse Book. Standard American Cook Book. Pilgrim's Progress. Samantha Among the Brethren. Samantha at Saratoga. People's Atlas of the World. In His Steps. Dairy Thermometer.

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We will send the Farm and Fireside one year and your choice of any ONE of the following premiums:

Career and Triumphs of Admiral Dewey. Photographic Panorama of Our New Possessions. Life of Washington. Life of Lincoln. Set of 6 Silver-plated Nut-picks.

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We will send the Farm and Fireside one year and your choice of any ONE of the following premiums:

Silver-plated Child's Set. Silver-plated Butter-knife and Sugar-shell. Scholar's Companion.

For 75 Cents

We will send the Farm and Fireside one year and your choice of any ONE of the following premiums:

Any One of the 12 Silver Novelties Offered in Our Premium List. Razor Strop. Set of 6 Silver-plated Coffee-spoons. Set of 6 Silver-plated Teaspoons.

(Upon the acceptance of any of the above offers, except the first, the club-raiser may have either the regular cash commission or the name may count in a club)

For detailed information concerning the premiums offered see our Premium List. If you do not have it, send for it TO-DAY. It is FREE.

All the above premiums are sent post-paid.

Gold Pens Free...

Premium No. 91 — Premium No. 76

Either one of these pens given FREE for a club of FIVE yearly subscriptions to the Farm and Fireside.

The Pearl Pen

Has a pearl handle, a gold nose and solid gold pen. Length 6½ inches. Sells in stores for $1.50.

The Fountain-pen

is the same as those sold in stores for $2.00. Has solid 14k gold pen, black rubber holder. Guaranteed to be a perfect writer. Pointed cap fits over pen when not in use. Has a filler and box. Length 6¾ inches.

We will send the Farm and Fireside one year and either of these Pens for $1.00

(When this offer is accepted the club-raiser may have either the regular cash commission or the name may be counted in a club)

Both pens guaranteed to give entire satisfaction or money refunded.

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HOUSEHOLD

[CONTINUED FROM PAGE 11]

MULBERRIES

The black, or common, mulberry (Morus nigra) is a native of Persia. The berries were highly esteemed by the Romans, who seemed to prefer them to every other fruit. Their aromatic flavor and subacid nature certainly were sufficient to commend them to the attention of those who could not procure such an abundance of sugar as we have at the present time. Mulberries are considered cooling, laxative and generally wholesome, and in composition contain, according to Fresenius:

SOLUBLE MATTER—	
Sugar	9.192
Free acid (reduced to equivalent in malic acid)	1.860
Albuminous substances	0.394
Pectous substances	2.031
Ash	0.566
INSOLUBLE MATTER—	
Seeds, Skins	0.905
Pectose	0.345
(Ash from insoluble matter included in weights given)	(0.089)
Water	84.707
	100.000

It is surprising that a fruit so delectable as the mulberry should be so lightly valued by the majority of people; nevertheless the birds and opossums still duly appreciate them. The following receipts are well worth trying:

MULBERRY PRESERVES.—Put one half cupful of water and one pound of mulberries in a granite kettle over the fire; let simmer gently until the mulberries are soft, then strain through a fine sieve, pressing through all the juice. To one quart of juice add four and three fourths pounds of sugar; boil and skim, add four pounds of mulberries, and simmer very gently for fifteen minutes; then stand aside over night to cool. In the morning, if the syrup has not jellied, boil again for fifteen minutes, being very careful not to break the mulberries. Put into jars or tumblers, and stand aside to cool. When cold seal as you would any other jelly.

MULBERRY SYRUP.—Mash enough mulberries so as to press out one pint of juice in a granite pan; let the juice stand in a cool place for two days, then filter it through a flannel bag. To the one pint of juice add twenty-eight ounces of sugar, place in a double boiler, and stir until all the sugar is dissolved; remove the scum. When cold the syrup should be placed in small bottles, corked carefully, and kept in a cool place. A few tablespoonfuls of this syrup added to a glassful of cold water or soda-water produces a refreshing summer beverage.

TO CAN MULBERRIES.—On each pound of mulberries, placed in a porcelain-lined kettle, sprinkle one fourth of a pound of sugar, and let stand one or two hours; then place over a moderate fire, and bring to the boiling-point; skim, and can immediately in self-sealing glass jars.

MULBERRY JELLY.—Very nice jelly may be made by taking one half mulberry-juice and the other half rhubarb-juice, and adding, by measure, as much sugar as there is juice. Finish the same as crab-apple jelly.

MULBERRY SHORTCAKE.—Measure out three large half-pint cupfuls of good flour; sift through it two even teaspoonfuls of baking-powder and half an even teaspoonful of soda. Sift these ingredients together two or three times, then rub in one and one half ounces of butter until the mass is fine and even. Add one and one half cupfuls of sour milk or sour cream and milk; stir in the milk, then toss the soft mass on a floured board, dredge with flour, and roll it out about an inch thick, forming two layers for a pie-tin; butter each layer, place one on top of the other, and bake until it is a light brown. Spread each layer thickly with mulberries, sprinkle sugar over the fruit, and put the layers together again. Serve with whipped cream.

MULBERRY ICE-CREAM.—Put one half pound of sugar with one pint of cream in a double boiler, and when the sugar has dissolved stand aside to cool. Add one half pound of sugar to one quart of mulberries and the juice of one small lemon, let stand one hour, then strain through a fine muslin. Add the sweetened cream to one pint of other cream, and freeze; when frozen stir in the fruit-juice, beat thoroughly, then remove the dasher and pack as usual, and let it stand in a cold place for two hours to ripen.

JAPANESE MULBERRY-ICE.—For each person fill a glass two thirds full of grated ice, and pour over it four tablespoonfuls of mulberry-juice; then scatter over one tablespoonful of sugar, and serve at once. VIRGINIA REED.

AN OLD SAMPLER

The fashion started lately in London for obtaining old samplers and selling them at very high prices will doubtless reach this country. There is a curious one owned by a woman living in M—, many hundred miles from the place in which it was worked. I was summoned to the village to help care for a sick relative. There were no trained nurses there, but the doctor knew of a capable woman who had often nursed his patients. As we worked together Jane found out (in a partial manner at least) how much I was interested in curios and all old-time work. One afternoon when she went out for her airing she brought back from her sister's a sampler. It was in panel-shape, long and narrow, and was wrought upon linen such as sheets and underwear used to be made of, when the women spun and wove the cloth. It was almost as white as snow, whether from it having had many washings after it had been lettered or whether the linen was bleached before the cross-stitching was done no one knew. Many of the letters were much worn, and some stitches broken, and parts of letters gone, so that all that could be seen of those was the shape on the cloth; an imprint really.

I had no chance to look at it until late at night, and then by means of a poor, narrow-wicked lamp. As Jane brought it to me she said, "I do hope you can read all that is on that linen; I have shown it a great many times, but no one has been able to read it since I have owned it, which is not so very long."

The sampler began as samplers do, with the large letters, the capitals making perhaps two rows, then the small letters, after those the numerals; then it was evident that Mary Hill was ready to proceed. I read from the sampler:

"Mary Hill is my name,
And English is my nation;
Scitnate is my dwelling-place,
Christ is my salvation."

Then came another set of letters, both large and small, after which the rhyme continued:

"My name is Mary Hill,
And so I intend it shall be
Until I find a man I love,
And then it shall be altered by
the powers above."

The alphabet made a border again for the words, then Mary Hill was wrought, with the date, 1792.

It had been a long task to read it, with the interruptions to attend the sick person. About two o'clock in the morning I wrapped up in a blanket and laid on a couch in a room just off the sick-room. I had almost fallen asleep, when, on account of a hand on my forehead, I jumped to my feet, thinking there must have been a sudden change with the sick one. Jane, the nurse, said, "Do not be frightened; but I want to ask you whoever heard of spelling 'Situate' (I had read the sampler to her, and written out the words) with a 'c'?" I tried to explain to her that Scituate is a town in Massachusetts, and that I did not know why it had that spelling; but so it was. I think she doubted my reading, and she may yet be trying to decipher the sampler.

MARY JOSLYN SMITH.

WHOLESOME SEPTEMBER DESSERTS

PEACH FOAM.—Pare and halve three ripe yellow peaches; simmer in simple syrup until tender, but not soft, and drain. Cover half a boxful of gelatin with a half cupful of cold water; when soft add one pint of boiling water, and stir until it is dissolved, then add three fourths of a cupful of sugar and the juice of one lemon, and strain into a deep bowl. When the jelly begins to form add the stiffly beaten whites of two eggs, and whip until the mass is foamy and light. Wet cups in cold water, place half a peach, cut side downward, in each, fill with the jelly, and stand in a cold place for four hours or more. When ready to serve, turn out carefully into individual dishes, heap the cavity in the fruit with whipped cream, stick a blanched peach-kernel in the center, and pour golden sauce around the base.

GOLDEN SAUCE.—Bring one and one half cupfuls of milk to scalding heat in a double boiler; beat the yolks of two eggs very light, add three tablespoonfuls of sugar, two tablespoonfuls of cold milk and a pinch of salt; pour into the hot milk, stirring constantly until it thickens and is smooth, but do not boil. Serve very cold.

SNOW PUDDING WITH CHOCOLATE SAUCE.—Make a gelatin jelly as for peach foam, flavoring with vanilla instead of lemon. Heap lightly in a glass serving-dish, leaving it rough in appearance, sift powdered sugar over, and pour chocolate around.

CHOCOLATE SAUCE.—Bring two cupfuls of milk to the scalding-point; put two ounces of chocolate over the fire with two tablespoonfuls of boiling water and four tablespoonfuls of sugar, and when hot and smooth stir into the hot milk. Beat thoroughly together the yolks of four eggs, three tablespoonfuls of sugar and a pinch of salt, add one gill of cold milk, and gradually stir the mixture into the hot chocolate, and cook, stirring constantly, until it is a rich, smooth cream. Serve very cold.

PEACHES WITH VANILLA.—Pare and halve four ripe yellow peaches; put three drops of vanilla in the cavity of each, set, cut side upward, in a glass dish, and set on ice. Slice the peach-kernels, cover with one cupful of cold water, and simmer for twenty minutes; strain, add one half cupful of sugar, and boil briskly ten minutes; when cold pour over the fruit, and serve with sponge-cake or other delicate cake. KATHERINE B. JOHNSON.

WITH WALNUTS

Gather walnuts when quite green—about the middle of July; they should be soft enough to prick each well through with a large needle. Cover them well with brine, allowing one and one half pints of salt to each gallon of water, and let stand two or three days, changing the brine every day. Then pour over them a brine made by dissolving the salt in boiling water (in the same proportion); it should be cooled before using; let stand three days, renew the brine once more, and let stand another three days. Put in cold water for half a day, then drain, pack in jars not quite full, and cover with vinegar prepared as follows: To each one hundred walnuts allow one gallon of vinegar, and to each gallon of vinegar add one teacupful of sugar, three dozen each whole cloves and allspice, one and one half dozen peppercorns and one dozen blades of mace. Boil the vinegar and other ingredients for eight minutes, then pour it over the walnuts scalding hot. In three days drain off the vinegar, boil it again, and pour over the walnuts hot, as before. At the end of three days repeat the process. In a month the walnuts will be fit to eat, and will keep for years.

WALNUT CATCHUP.—Use green walnuts as directed for pickling. To every one hundred walnuts allow a large handful of salt and one quart of best cider vinegar. Put them in a stone jar and let stand for eight days, stirring thoroughly every day. Then drain the liquor from them, and boil it with one fourth of an ounce each of mace, nutmeg, ginger, cloves, black pepper and grated horse-radish; let boil fifteen minutes, bottle, and seal tightly. Prick the walnuts thoroughly with a large needle before using them.

OUR COUNTRY'S BIRTHDAY

"The United States is the only country with a known birthday," announced a well-known statesman to a party of young people who were eagerly planning for the coming celebration; and noting their interest in the subject he proceeded to offer a prize for the greatest number of interesting facts concerning the Fourth and its celebration to be collected within a week. It is needless to state that the fund of information thus gleaned by the youngsters was worth quite as much as the prize itself. Here are a few of the facts collected from the various lists:

Our famous declaration was signed July 4, 1776; acknowledged by France January 16, 1778; by Holland, April 19, 1782. Provisional articles of peace were signed by England September 3, 1782. By this declaration the name was changed from American Colonies to the United States of America.

There were fifty-six signers from eleven colonies. The declaration was ordered by Congress to be engrossed on parchment, and was signed August 2, 1776, by all the delegates then present—fifty-four. Thomas McKean, of Delaware, affixed his signature in the following October, and Matthew Thornton, of New Hampshire, signed in November, making up the fifty-six.

To Virginia belongs the honor of making the first move toward this declaration. As a culmination of the growing sentiment of a necessity for a separate government, caused by repeated outrage, on May 15, 1776, she instructed her delegates to Congress to propose to that Congress a Declaration of Independence. So, accordingly, on June 7, 1776, Richard Henry Lee, of Virginia, first moved to Congress "that the United Colonies are, and ought to be, free and independent states." Then occurred a debate about it, which was only won by those in favor by the slight majority of seven to six. A committee was then appointed — Thomas Jefferson, John Adams, Benjamin Franklin, Roger Sherman and Robert R. Livingston—to prepare a formal declaration. The draft of this was prepared by Jefferson, and reported to Congress June 28, 1776.

Pennsylvania was one of the colonies whose delegates were instructed to oppose the declaration. On the second consideration of the measure—July 1st—Pennsylvania stood three to four against.

Fourth of July celebrations have undergone a radical change from those of a century ago. The old-time method of celebrating this auspicious day was very different from the superabundant noise considered necessary by our lads and lasses to-day. One hundred years ago fire-crackers were practically unknown here. In the good old days of powdered hair and knickerbockers independence day was chiefly celebrated by patriotic speeches and dinners, the latter being the great feature of the day. The veterans of the Revolution paraded in some of the larger cities, amid the cheers of the populace.

Friday, July 4, 1777, was celebrated in Philadelphia, the first anniversary of our birthday, with much joy and festivity. The celebration began at one o'clock by a discharge of thirteen guns from each of the armed ships and galleys drawn up before the river-front. Then followed an elegant dinner, to which were invited the president and supreme executive council, speaker of the assembly of the state, general officers and colonels of the army, strangers of eminence and members of the several continental boards in town. A Hessian band, taken prisoners at Trenton the December previous, and a corps of British deserters greatly heightened the festivities and filled up the intervals with feux de joie.

New York's first independence day celebration was held July 4, 1795.

The ladies of the olden time were in nowise behind the men, but took a deep and patriotic interest in the observance of the day. They convened in a grove, had a collation, and then marched in procession two by two, and concluded the day exercises around the liberty-tree, erected near the church. To this tree was fastened a board, representing a divided serpent on the point of being devoured by a dragon, with the motto, "Unite or die." P. W. HUMPHREYS.

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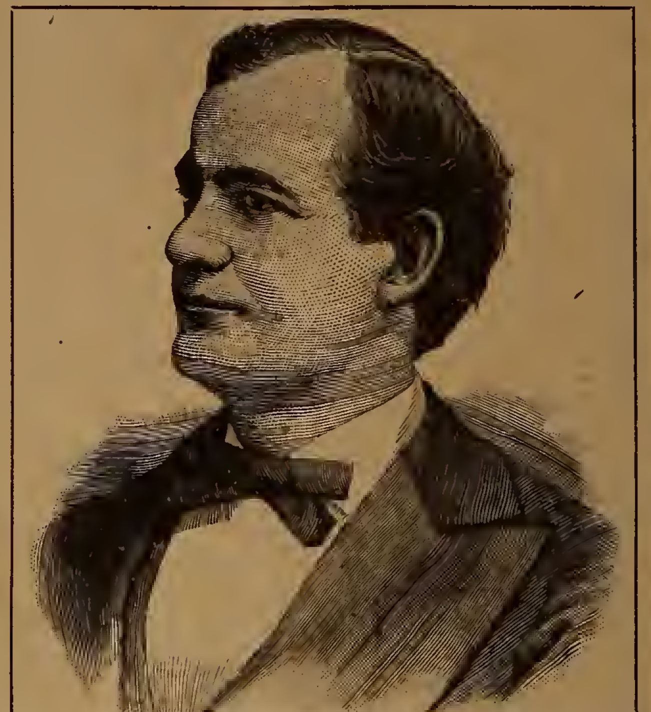

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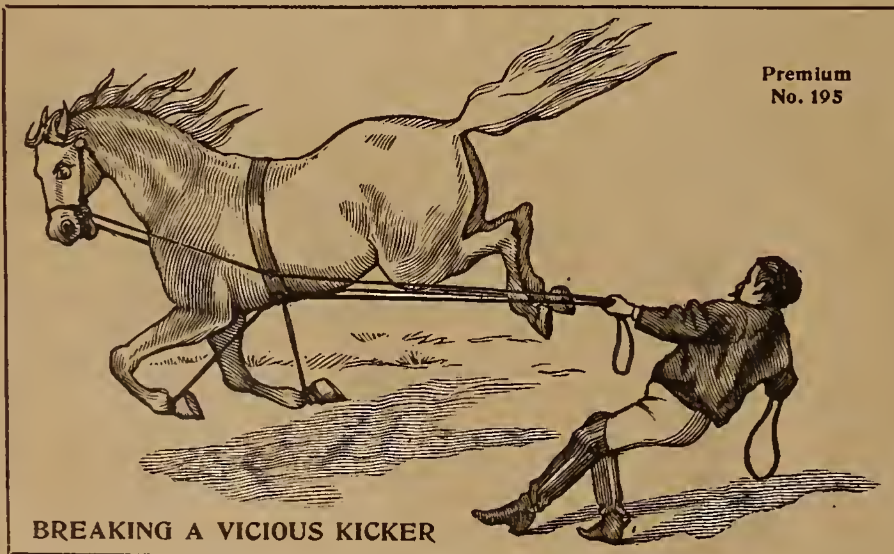

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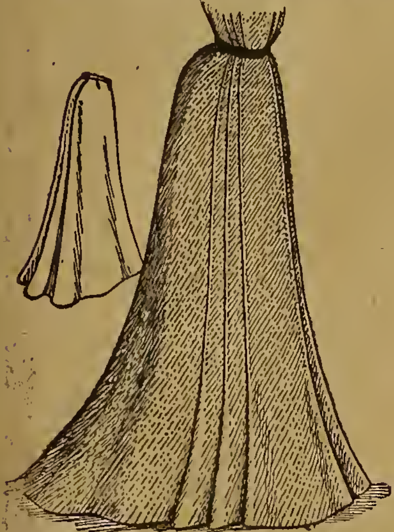

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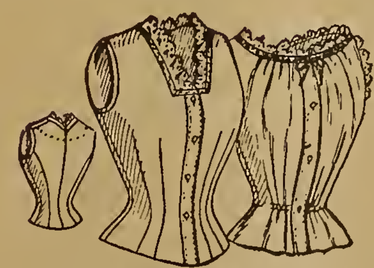

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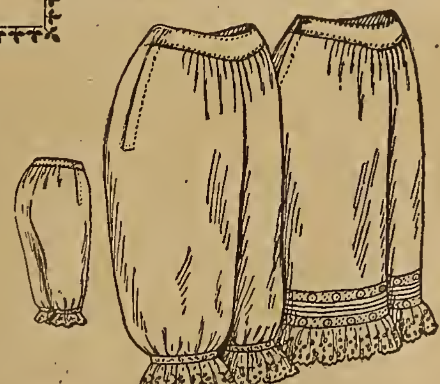

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FARM SELECTIONS

THE CULTIVATED MILLETS

THERE are several different agricultural grasses of economic importance sold in the trade under the general name of millet, hence there is more or less confusion.

FOXTAIL MILLET.—To this group belong what is generally sold as "common millet," and also a number of other varieties, all belonging to the species known to botanists as "Setaria Italica," and which is considered by many to have been originally derived from the common weedy green foxtail (Setaria viridis). The seed is borne in a compact, cylindrical, often more or less nodding cluster at the top of the stalk. The seed can be distinguished by the numerous minute transverse wrinkles. There are four groups of varieties. 1. Common millet, which is more resistant to drought. 2. German millet, also called Golden millet and Bengal grass, the commonest variety in the South; the latest of the foxtail millets and coarser in foliage. Some of the so-called Japanese millets belong here. 3. Golden Wonder millet, which under favorable conditions gives the largest yield of seed, but is susceptible to drought. 4. Hungarian millet, or grass, more commonly cultivated in the Northwest. This has the disadvantage of volunteering or persisting in the soil. The "New Siberian millet" is related to Hungarian grass, but may be a distinct variety. There are a number of different varieties of each of the groups mentioned.

BARN-YARD MILLETS.—These have been long grown in the Old World both for forage and food for man, but have only recently received much notice in this country. They received their name from the fact that they are derived from the common and well-known barn-yard grass, a weed in cultivated soil. They are characterized by having the flowers in branching clusters like the barn-yard grass (Panicum Crus-galli), and the seed smooth and about twice as long as the foxtail millets. Barn-yard millet gives promise of making a successful forage-grass in this country. Closely allied to this are the Shama millet (Panicum colonum) and Sanwa millet (Panicum frumentaceum), both grown extensively in India and other parts of Asia for the seed, which is used for food by the poorer classes. They do not give promise of success in this country.

BROOM-CORN MILLET.—These are derived from Panicum milaceum. This species has been cultivated for centuries in Europe, where it is the "common millet." It is not extensively grown in the United States, but is offered in the trade under the name of broom-corn millet and hog millet. The seeds are borne in loose, drooping clusters, the branches of the cluster being long and slender, somewhat resembling the seed cluster of broom-corn, whence the name. The seeds are from white to yellow and dark red, and like the preceding sorts are flat on one side and convex on the other, and resemble the barn-yard millet in size and absence of wrinkles.

PEARL MILLET (Pennisetum spicatum, or Pennisetum typhoideum).—Extensively cultivated in Africa for the seed, which is used for food, and occasionally in the southern United States, where it is used for fodder. Plants tall and stout, the seeds borne in a dense, cylindrical cluster, but without the bristles characteristic of the foxtail millets.

INDIAN MILLETS (Sorghum vulgare).—Certain varieties of sorghum or cane are very extensively grown in Africa and Asia for the seed, which is used for food. They also go under the name of Chinese millet, black millet, African millet, guinea-corn, etc. At present these varieties of sorghum are not grown in the United States on a commercial scale.—A. S. Hitchcock, Kansas Experiment Station.

TURKEY TALK

In the morning Mrs. Chapman announced that the turkeys were hatching, and she wanted the yard made tight. Sixteen out of eighteen eggs made a fine sight, pure bronze. "Big when they are first hatched," said a neighbor's boy, admiringly. "Just put her in; she will stay all right till noon," I urged. "I am so busy; we want to finish planting potatoes this forenoon."

"You know the crows will pick every one the first day while they are weak, and the old turkey will hide in the swamp if she gets out. Better not risk it," said the wise wife. But I said "Pshaw!" and hurried on. At noon, as I came out from dinner, I saw a crow in a tree, a hen-turkey on the fence, and several heifers trying to hit her, but nothing else. I hurried and cleaned out the animals, but not a young turkey could I find. As I sat on the fence, viewing the lonely mother-turkey, and dreading to break the news to my wife, I had a bad time of it. I am afraid, if there had been a ghost of a chance, I would have laid the blame on her; but there wasn't. I lost a good share of the afternoon just because I had so many more things that I ought to do, or else because of the mean, shiftless habit of putting off doing little short jobs till some more convenient time.

After the turkeys were gone I thought I would try to do better in the future, a sort of death-bed repentance, so I went at the fence. The old turkey ate dandelion-blossoms and dusted demurely, without showing a bit of feeling for me or the loss of her brood, while I mourned. After an hour she seemed quite contented, and began moving off, so I went down again and found twelve of the little ones with her, much to my surprise. Surely virtue was rewarded, even before the fence was finished. I put her in the yard. Toward night the boys went down and heard a peeping. By careful creeping they caught the other four skulkers, and the family was again united, but the scare took the flesh off me. I won't put off things like that again, if I have to neglect all the crops.—C. E. Chapman, in Rural New-Yorker.

THE POTATO-STALK WEEVIL

The greatest enemy of the potato-grower to-day is the stalk-weevil. Since copper solutions have aided us so materially in our fight with mildews and molds, and Paris green has been so great a friend to us against the Colorado beetle, we should have little trouble but for the stalk-borer. It would not be too much to say that it has probably lessened the potato crop of America one half.

The misfortune is that its work is unknown to the average cultivator. He sees his potato-stalks wilt under the first warm sun, and rests satisfied with the thought that the "hot sun was too much for them." It was too much simply because the weevil has bored the stems hollow.

The beetle is closely related to the plum weevil, or curculio; but it has scarcely taken on the beetle form before it begins to lay eggs in the stem at the surface of the ground. The egg soon hatches, and the larva bores its way through the center of the stem. The egg-laying commences about the end of April in this latitute, and the boring is about complete and the stem ready to die about the middle of June. Some have thought that they preserve their potatoes by placing a small portion of Paris green around the stems as soon as they appear above ground; but as the beetle at this point and in this stage simply inserts its ovipositor in the stem, it is not clear that good results can follow. If it were to feed on the leaves to any great extent, as the Colorado beetle and its larvae do, it would certainly be useful.

The larvae, or pupae, live over winter in the dry stems; pulling up and burning these after they have fulfilled their mission of producing a crop of small potatoes would therefore destroy great numbers.

The misfortune is that the creatures pay attention to the jimson-weed and other members of the Solanum family; so that after the cultivator has kept his own land clear of the pests, he is liable to an influx of a new breed from the grounds of less careful neighbors.—Meehan's Monthly.

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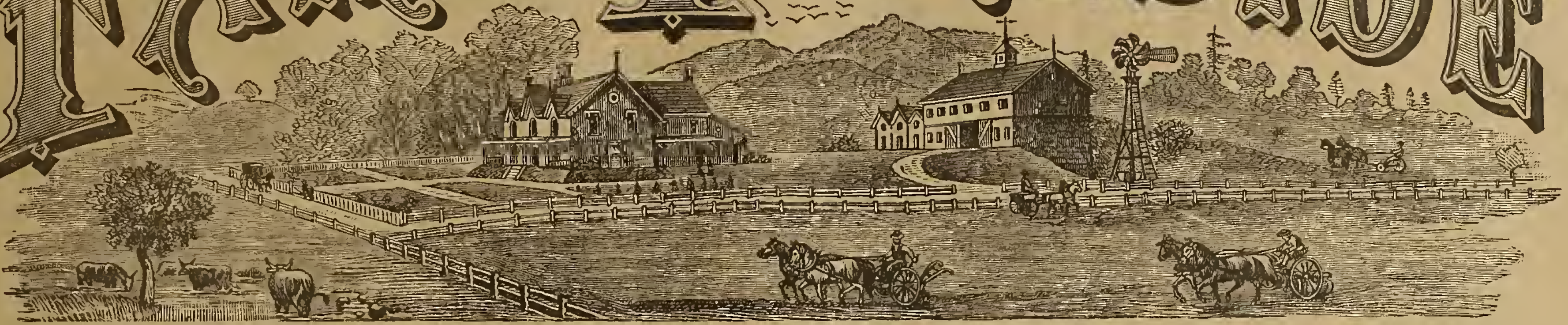

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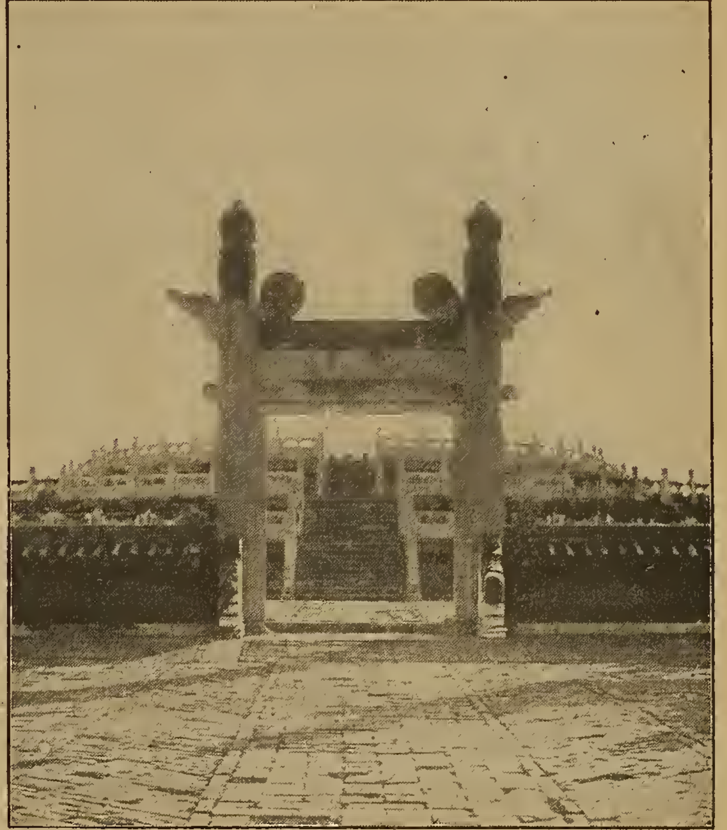

Approach to Altar of Heaven

CHINESE LAND-TAXES AND CURIOUS CUSTOMS

By William N. Brewster

The Chinese farmer is not much of a politician. He never votes, and few know enough to want to have a voice in the choice of their rulers. Nevertheless this patient toiler has limits to his endurance, and he has his own ways of showing when that limit has been reached.

One of the fixed political doctrines of the Chinese granger is that taxes on land should be very light. The mandarin that seeks to combat this public sentiment is sure to come to grief. Few have the temerity to try it, and never more than once. A "mau" is one sixth of an acre. The annual tax on good rice-land, worth from thirty to fifty dollars a "mau," is only about twenty cents. On unirrigated land it is but half that. Probably in no other country of the world are taxes on real estate so light as in China.

Several years ago a governor-general of this (Fuhkien) province conceived the idea of adding to his revenue by increasing the real-estate tax in the county of Hokchiang. The people protested, but without success. They passed around the word, and the whole population flatly refused to pay one cent, even at the old rate. A prominent literary-degree man and landed proprietor was chosen to make a test case in the courts. He appealed from one judge to another until he reached the governor-general himself. He was still unsuccessful. He was preparing to carry the case to Peking when this fact became known to the governor, who promptly had him arrested and thrown into prison. By a trick a confession was extorted from him that he was the leader in the rebellion against paying the taxes, and he was executed. But the end was not yet. The old man had sons, who took up the case to avenge their father's death. The civil-service examiner came to hold the biennial examination at the county-seat, only to find that not one of the customary two thousand candidates for the much-coveted degree presented himself to be examined. This was unprecedented. He found out the reason, and his sympathies were aroused. He had the ear of the imperial authorities, and at last the case was carried to Peking. The governor-general committed suicide in the fashionable Chinese way by swallowing gold. The old tax-rate has not been meddled with since.

This deep-seated doctrine of political economy in the mind of the Chinese farmer is based upon good reasons. The taxes he pays do not bring him any visible returns. The government takes his money, but it builds him no roads, repairs no bridges, supports no postal system, no police service, no public schools. It is a government that bleeds him, but gives little or no protection or justice in return. He knows that the imperial government gets a very small fraction of what he does pay. It is squeezed out by every hand through which it has to pass. He argues that an increase in the tax will simply mean an increase in the already enormous private profits of the officials. Why should he further enrich them from his hard-earned cash? When China swings into line in the march of the nations, and a navy and army and police force and public improvements are carried on by the government, this ridiculously low rate of tax will have to be increased. But John Chinaman will first have to be convinced that he is going to get the benefit of this increase himself, not the tax collectors, or there will be a strike that will astonish the world. One hundred millions of farmers spontaneously and simultaneously following the example of the county of Hokchiang, above described, would furnish a rebellion which no Chinese government would be able to cope with.

But if land-tax is small it is collected with great regularity and perpetuity. For instance, in Hinghua is a tide-stream that winds its snaky course across the fertile plain to the sea. This sometimes changes its course. Fields are washed away and new ones filled up. There are hundreds of these fields that have been under water for years upon which the owners are still paying the taxes. It is of no avail for them to protest that their property has disappeared. They are on the tax-list, and they must pay or have their chattels levied upon for it.

But sometimes these submerged fields fill up again. I know of a case where the owners had been paying taxes for ten or fifteen years while they had nothing to cultivate. The water shifted, and the silt filled up the fields, but the owners did not dare to take possession and begin to cultivate them. Why? Because the literary gentry had secured from the officials the exclusive privilege of cultivating all filled land, presumably for endowment of their schools, but in reality to line their own pockets. The reason such injustice is endured is because only a few persons are affected by it. The Chinese farmer does not trouble himself about the woes of his neighbors, unless they belong to his own clan. He thinks he has enough troubles of his own to bear, and he is not far from right.

There is another curious custom in this connection. It is very common for a man to be paying taxes upon land that perhaps his grandfather sold to a neighbor fifty years ago. A man needs money, and he must dispose of a field to get it. If he sells it, and the buyer becomes responsible for the taxes, he will get less cash down. So it is common to buy property with the stipulation in the deed of transfer that the former owner is to continue to pay the taxes. In that case no record of the sale is made at the yamen, or court, and the tax-list remains unchanged. It is difficult to imagine any such custom prevailing in any country except China. But we become accustomed to [CONCLUDED ON PAGE 6]

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THE policy of the United States in regard to China is clearly defined in the following circular sent to our foreign representatives by Secretary Hay:

"In this critical condition of affairs in China it is deemed appropriate to define the policy of the United States as far as present circumstances permit this to be done. We adhere to the policy initiated by us in 1857, of peace with the Chinese nation and the furtherance of the law of commerce and protection of lives and property of our citizens by all means guaranteed under extraterritorial treaty right and by the law of nations. If wrong be done to our citizens we propose to hold the responsible authors to the uttermost accountability. We regard the condition at Peking as one of virtual anarchy, whereby power and responsibility is practically devolved upon the local provincial authorities. So long as they are not in overt collusion with the rebellion, and use their power to protect foreign life and property, we regard them as representing the Chinese people with whom we seek to remain in peace and friendship.

"The purpose of the President is, as has been heretofore, to act with the other powers.

"First, in opening up communication with Peking and rescuing the American officials, missionaries and others who are in danger.

"Second, in affording all possible protection everywhere in China to American life and property.

"Third, in guarding and protecting all legitimate American interests; and

"Fourth, in aiding to prevent a spread of the disorders to the other provinces of the empire and recurrence of such disasters. It is, of course, too early to forecast the means of attaining this last result, but the policy of the government of the United States is to seek a solution which may bring about permanent safety and peace to China, preserve Chinese territorial and administrative entity, protect all rights guaranteed to friendly powers by treaty and international law, and safeguard to the world the principle of equal and impartial trade with all parts of the Chinese empire."

IN A recent address Assistant Secretary Vanderlip set forth some figures of our foreign trade as follows:

"We have just witnessed the close of a marvelous year in the foreign trade. We rejoiced exceedingly a year ago, when the value of our exports reached $1,227,000,000. In the year which has just closed we have made a new mark, for the exports for the fiscal year, 1900, stand at $1,400,000,000. That is $173,000,000 gain over last year, $160,000,000 greater than in the banner year, 1898, and $330,000,000 more than in 1897. It is $517,000,000 more than in 1896.

"The gain of 1900 over 1899 amounts substantially to $500,000 for each day. This means there has been distributed daily in some form or other among the American people $500,000 more than in the prosperous year 1899, and that labor, being the greater element in the cost of production, has received in wages the greater part of the increase.

"In the increases all industries have participated. As an example, take transportation for last October. In that month 33,000 cars were ordered from car-building companies, 350 locomotives and over 500,000 tons of steel rails. To meet all these large orders all the energies of production, ranging from the first handling of raw material in the mines and forests, through all the processes of manufacture to the finished product, have been employed, and thus there has come about a distribution of the millions gained, which may now be found represented either in things adding greater comforts to homes or by deposits in the savings banks for future needs."

IN A recent speech Senator Frye set forth these striking facts:

"Our wheat crop in 1898 was larger than that of any other nation—twenty-three per cent of the world's crop.

"Our corn crop for the same year was ten times larger than that of any other nation—seventy-three per cent of the world's crop.

"Our export of provisions was three times greater than that of any other nation.

"Our cotton crop was five times greater than that of any other nation—seventy-five per cent of the world's production.

"Our coal production last year exceeded that of any other nation—thirty-one per cent of the word's production.

"Our pig-iron production last year exceeded that of any other nation—thirty-three per cent of the world's production.

"Our copper production was more than one half of that of the whole world.

"Our railroads were six times the length of those of any other nation.

"The United States will enter the new century as the leading world's producer in all the factors which enter into international commerce."

IN REID'S "Problems of Expansion" is this forcible passage:

"In the light of such expositions of our constitutional power and our uniform national practice it is difficult to deal patiently with the remaining objections to the acquisition of territory purporting to be based on constitutional grounds. One is that to govern the Philippines without their consent or against the opposition of Aguinaldo is to violate the principle—only formulated, to be sure, in the Declaration of Independence, but, as they say, underlying the whole Constitution—that government derives its just powers from the consent of the governed. In the Sulu group piracy prevailed for centuries. How could a government that put it down rest on the consent of Sulu? Would it be without just powers because the pirates did not vote in its favor? In other parts of the archipelago what has been stigmatized as a species of slavery prevails. Would a government which stopped that be without just powers till the slave-holders had conferred them at a popular election? In another part head-hunting is, at certain seasons of the year, a recognized tribal custom. Would a government which interfered with that practice be open to denunciation as a usurpation, without just powers, and flagrantly violating the Constitution of the United States, unless it waited at the polls for the consent of the head-hunters? The truth is, all intelligent men know—and few even in America, except obvious demagogues, hesitate to admit—that there are cases where a good government does not and ought not to rest on the consent of the governed. If men will not govern themselves with respect for civilization and its agencies, then when they get in the way they must be governed—always have been, whenever the world was not retrograding, and always will be. The notion that such government is a revival of slavery, and that the United States by doing its share of such work in behalf of civilization would therefore become infamous, though put forward with apparent gravity in some eminently respectable quarters, is too fantastic for serious consideration."

COMMENTING on our business in China the New York "Sun" says:

"It is a curious circumstance that while this country, perhaps more sincerely than any other, desires the preservation of China's integrity as an empire, the present great disorders have occurred in the very regions where our trade interests are largest. One half the foreign goods sold in New-chwang are sent from the United States, and the dispatches say that this port has been sacked and burned. The custom-house jetty at Chefoo is always piled high with American products, whose sales in Chefoo, over $2,000,000 a year, exceed the entire value of our exports to some thirty countries. But the British have been resisted and white men killed in Chefoo. Tien-Tsin, in a state of siege and temporarily cut off from all business relations, is one of the three largest inlets for the cotton cloths and kerosene that form the bulk of our export trade with China. In a word, our trade is chiefly with north-east China, where the revolt originated and to which it is still confined.

"Our exports to the three large ports most seriously affected by the revolt amounted to over $8,000,000 in 1897, or eight ninths of our total sales in China. It is quite certain that they took at least five sixths of our exports last year, amounting to over $12,000,000. This is a mere bagatelle in our trade statistics, and even our cotton manufacturers who sell so much at home and comparatively so little abroad are not at all dismayed; but both our business interests and political policy require the speedy restoration of good order, the preservation of the empire and the safeguarding of the open door of trade in the vast country where our trade has recently been growing by leaps and bounds."

IN AN interesting article in the "North American Review" for July on "China and the United States" Minister Wu Ting-Fang says:

"China has her teeming millions to clothe and feed. Many of the supplies come from outside. The share furnished by the United States was considerably larger last year than ever before, and might be greatly increased. According to the statistics furnished by the United States government, China in 1899 took American goods to the value of $14,437,422, of which amount $9,844,565 was paid for cotton goods. All of the European countries combined bought only $1,484,363 worth of American cotton manufactures during the same period. The amount of similar purchases made by the Central American states was $737,259, by all the South American countries, $2,713,967. It thus appears that China is the largest buyer of American cotton goods. British America comes next in the list, with purchases amounting to $2,759,164. Cotton cloth has a wide range of uses in all parts of the Chinese empire, and it is almost impossible for the supply to equal the demand.

"Up to the year 1898 cotton goods and kerosene were the only articles imported from the United States in large enough quantities to have a value of over $1,000,000. But I notice in the statistics published by the United States government for the year 1899 that manufactures of iron and steel have also passed that mark. This is due to the fact that China has now begun in real earnest the work of building railroads. The demand for construction materials is great. The value of locomotives imported last year from the United States was $732,212.

"Besides the articles mentioned, there are many others of American origin which do not figure in the customs returns as such. These find their way into China through adjacent countries, especially Hong-Kong. At least three fourths of the imports of Hong-Kong, notably wheat, flour and canned goods, are destined for consumption in the Chinese mainland.

"Such is the condition of trade between the United States and China. That trade can be greatly extended. Let the products of American farms, mills and workshops once catch the Chinese fancy and America need look no farther for a market. The present popularity of American kerosene illustrates the readiness of the Chinese to accept any article that fills a long-felt want. They have recognized in kerosene a cheap and good illuminant, much superior to their own nut-oil, and it has consequently found its way into distant and outlying parts of the empire, where the very name of America is unknown.

"The Chinese empire embraces a continuous territory which stretches over sixty degrees of longitude and thirty-four degrees of latitude. Nature has endowed this immense region with every variety of soil and climate, but has, however, scattered her bounties over it with an uneven hand. That portion which comprises the eighteen provinces of China proper, extending from the Great Wall to the China sea, and from the Thibetan plateau to the Pacific ocean, is more highly favored than the rest. Whenever China is mentioned it is generally this particular portion of the empire that is meant. On this land hundreds of generations of men have lived and died without exhausting its richness and fertility. There remains for generations to come untold wealth of nature lying hidden within the bowels of the earth. The mines of Yunnan, though they have for centuries supplied the government mints with copper for the coining of those pieces of money commonly known as cash, only await the introduction of modern methods of extraction to yield an annual output as large as that of the famous Calumet and Hecla mines. The sand of the Yangtse, washed down from the highlands of Thibet, contain so much gold that that part of its course as it enters the province of Szechuen is called the River of Golden Sand. Much more important than these, however, are the deposits of coal which underlie the surface formation of every province. All varieties of coal are found, from the softest lignite to the hardest anthracite, and in such quantities that, according to the careful estimate of Baron Richtofen, the famous German traveler and geologist, the province of Shansi alone can supply the whole world at the present rate of consumption for three thousand years. In most cases beds of iron-ore lie in close proximity to those of coal, and can be easily worked and smelted. In short, the natural resources of China, both in variety and quantity, are so great that she stands second to no other nation in potential wealth. To reduce this potentiality to actuality is for her the most important question of the hour. For this purpose she has an almost unlimited supply of labor at her command. . . . Before China can be really on the highroad to prosperity it must find means of fully utilizing every economic advantage that it has. Modern methods are its greatest need. Here is America's opportunity."

Silage and Silos From the Wisconsin agricultural experiment station comes a bulletin (No. 83) on silage and the construction of modern silos. It has been for many years a cause of much regret to me that I am not in a position to make use of silage for my stock. If somebody could give me the assurance that I were to continue farming on the spot now occupied by me for not less than half a dozen years more (and it is not likely that this will happen, as the rapid building up of the vicinity will demand all these broad acres for other industrial purposes) I would surely construct a silo at once, although I keep only three horses and as many cows. I am fully convinced that the stock-raiser who depends on properly made silage as stock feed has a material advantage over the one who feeds dry stuffs, and will have nothing to fear from the competition of the latter. Good milk and butter cannot be made in a cheaper way than by feeding well-made silage with bran or oil-meal. For some years I have been wondering how small a successful silo might be made. The Wisconsin station says they have demonstrated the past season that if green corn is put into a vessel having strictly air-tight walls, and at the same time is so thoroughly packed as to largely expel the entangled air, good silage may be made in very small quantities. "We have used galvanized iron cylinders as small as eighteen inches in diameter and forty-two inches deep, filling them with corn cut in half-inch lengths and simply covering them with two thicknesses of acid and water proof paper, and yet after one hundred and seventy-eight days' standing in our continuously warm and sunny plant-house there was only nine inches of spoiled silage on top. All of the balance was of excellent quality. In another silo only one foot in diameter and ten feet deep, filled with corn at the same time, similar results were secured." The following is a comparison of cost of differently built silos of thirteen-feet diameter and thirty-feet depth:

	WITHOUT ROOF	WITH ROOF
Stone silo	$151	$175
Brick silo	243	273
Brick lined, 4 inches thiok	142	230
" " 2 " "	131	193
Lathed and plastered	133	183
Wood silo with galvanized iron	168	222
Wood silo with paper	128	183
Stave silo	127	144
Cheapest wood silo	101	120

These figures will do for comparison. The bulletin says that it will be seen from this table that when stave silos are built of good durable lumber they are but little cheaper than the very much more substantial and much better wood and lathed and plastered silos. And that if one wishes to build a cheap temporary silo which will stand rigidly and preserve the silage in good condition it is possible to do this for less money than the stave silo will cost. Silage, it seems to me, is the chief feeding material of the future. Even we small stock owners and raisers will have to adopt it.

* * *

Politics a Matter of Conscience It does me good when I see our friend Fred Grundy go for the local political boss as he does occasionally. My experience in this line is somewhat like his. I am a politician to some extent myself; but I accept no ready-made creed from any kind of pope, be it church pope, an agricultural pope, or a political pope. I do my own thinking and arrive at my own conclusions, although I do not mean to claim that they are always correct ones, for nobody is infallible. But I take no directions from any political boss, no cut-and-dried platform of principles, or support any machine-made nomination from any party. When I go into the election-booth on election-day I am alone with my ballot, my pencil and my conscience; and my conscience directs the pencil. For that reason, of course, I am a thorn in the flesh of the political boss, and have been the object of various attempts of political assassination. It is true I have earned the ill-will of some of these politicians and their henchmen, and no regrets about it, either. I go my way, following my own notions of what is right and proper; am never afraid to speak out and show my true color; and it pleases me to see that the majority of my townspeople uphold me and my course. I have the utmost confidence in the integrity and the inner goodness of the great mass of people, especially in a farming community, and feel sure that they will support the man who is trying to do right according to his best knowledge and belief, when they understand the issue.

* * *

On the other hand, I have sometimes wondered that the professional politicians and bosses are able to control so many votes, by fair means or by foul. For a few weeks before election they are spending most of their time in the saloons, treating right and left, and making friends with the men who frequent these places. They cannot catch all, but they catch some, and there are people who will sell their vote for a glass of beer. Once, when canvassing the town in the interest of a friend who wanted to be supervisor, a newly naturalized German stated to me that the other candidate had helped him to get his papers, and treated him to a glass of beer, too; so he had to vote for him. That was a cheap vote; but many are bought that way and as cheap. A great many more, however, and often well-meaning and decent sort of people, are induced to give their votes to undeserving nominees on the plea of friendship, or for acquaintance's sake. I recollect one instance. One party had put up for village president a prominent real-estate owner of business ability and integrity, safe, honest beyond doubt, well-meaning, temperate; in short, one of the most respectable and respected men of the community. The other party put up a young fellow without any qualification for the office, an obedient tool of the party bosses, and about whose eligibility there were grave doubts. By working the saloons and the acquaintance and friendship dodges the bosses succeeded in electing their man. It seems to me that when many of those who had been induced to vote for the bosses' tool came to their sober senses, or gave the matter calm consideration later on, they must surely have felt a little ashamed for having sold their birthright for less than a mess of pottage. Politics, and by that most people mean voting, is not a matter of acquaintanceship, even friendship, but a matter of business and conscience. By all that is great and good don't vote simply to oblige people whom you cannot respect; and it is not often that you find a practical politician and political boss whom you can respect. Many of them, and among them are people who have been in the legislature or have occupied other great offices, are not the people with whom a decent sort of person could associate without losing his self-respect.

* * *

Pollination of Grapes The Brighton, a red grape, is one of our choicest in a lot of nearly one hundred varieties. It never yet has failed to give large, well-filled bunches, and a quality of berry that is simply delicious. Some people who have planted a few Brightons, either alone or perhaps with another choice variety, report entire or partial failure, the bunches usually being imperfect or entirely without berries. The trouble is that this variety, and a good many others besides, is self-sterile, and will give no fruit unless suitable pollen is provided from some good pollenizer near by. Fortunately some of our most popular sorts which one is most likely to find in a collection, such as Concord, Delaware, Niagara, Lady, Mills, Agawam, Catawba, Duchess, Poughkeepsie, Jefferson, Pocklington, etc., are strongly self-fertile, and will furnish an abundance of suitable pollen for other sorts, too. Before me I have a bulletin (No. 169, popular edition) from the New York agricultural experiment station giving a list of self-sterile and self-fertile varieties. It can be had by addressing a request for a copy to the director of the station, at Geneva, New York. Among self-sterile and imperfectly self-sterile varieties this bulletin names the following: Woodruff, Adirondack, Amber Queen, Dracut Amber, Green Golden, Lindley, Northern Muscadine, Vergennes, Wilder, Wyoming, Brighton, Eldorado, Massasoit, etc. The moral of the story is, "Don't plant any of the last list by themselves." Make mixed planting the rule; and it is a good rule not only with grapes, but with a great many other fruits as well, even with apples, pears, plums, peaches, cherries, etc.

T. GREINER.

SALIENT FARM NOTES

Apple-scab In all the years I have grown fruit I have never seen apples so scabby as they now are, and I sprayed thoroughly with Bordeaux mixture last spring and felt reasonably sure that the fruit would not be injured by any fungous diseases. My faith in Bordeaux mixture as a remedy for apple-scab has weakened very much—in fact, it never was very strong—and hereafter I shall use copper sulphate solution instead. Copper sulphate solution is applied before the leaves appear, and that is the time to fight fungous diseases. I am satisfied that apple-scab attacks the leaves of the tree just as soon as the buds burst, and then spraying is of little value. We must destroy the fungi before it attacks the leaves. After it once becomes fastened into the leaves it cannot be destroyed by anything that will not destroy them. From the leaves it goes to the fruit, and the crop is badly injured or entirely ruined. When I look at the scabby leaves and knotty fruit on my trees, and think of all the pains I went to in mixing and applying the so-called fungicide, I feel something like the fellow did who locked his stable after his horse was stolen. Next year I shall spray thoroughly with sulphate of copper just before the leaves appear, and then let the trees alone until after the blossoms fall, when I shall spray with an insecticide, twice if we have rain soon after the first spraying.

* * *

Pear-blight In addition to the apple troubles blight has fallen upon the pear-trees and almost ruined some of them. One fine little summer pear that I like especially well looks as though fire had swept through it. It is eleven years old, and this is the first season that blight has touched it. The Howell is also blighted for the first time. The Kieffer is slightly affected with twig-blight, but not enough to hurt it. Altogether this seems to be, as a native put it, "a turrible onhealthy year for fruit-trees!" Along a little later will come the fall web-worm and other leaf and twig destroying pests that will need prompt attention. Then the presidential campaign, with its distracting oratory, blaring bands, kerosene-torches, fireworks, howling paraders, pros and cons and neglect of business! We'll have our hands full.

* * *

But for my little tin atomizer, or sprayer, and a good supply of kerosene I would have a time milking. It is astonishing how quickly a few whiffs of kerosene along the sides and among the legs of a cow will send every fly to the floor or hunting for an opening to get out of the stable. At first the cow does not like to have the kerosene mist sweep over her, but she soon gets used to it, and when the stable door is opened she will make a wild dash for it, to get rid of her tormenters. The kerosene comes out of the sprayer much like smoke, and but very little is required to clear the flies out of a small stable. Sometimes flies will gather on the walls inside the stable by the thousands, apparently waiting for the animals to come in. A few squirts along the walls with the sprayer will kill or drive them out in a hurry. Every one who keeps horses or cows should have one or more of these useful little tools in the stables.

* * *

Moles A gardener in Ohio wants to know how to rid his land of moles. He says there are one to a dozen ridges, or runs, on every rod of his land, and his crops are very much damaged by these little animals. Some people seem to think that moles do no harm, but others, among them myself, think rather strongly otherwise. Last year they destroyed a fine bed of Auratum lilies for me, and ruined a strawberry-patch. I sharpened some pieces of wire, drove them through small holes in a piece of inch board a foot long, nailed that across the end of a piece of fence-board four feet long, forming a T. I then made a figure-4 trigger, which every boy knows how to make, bored a hole through the lower end of the T, and I was ready for business. The trap was set with the upper part of the T lengthwise of the run, with the long end of the trigger resting on the run, which was pressed down at that spot; a small stake was thrust through the hole in the lower end of T, to hold it steady, and when the mole came along and raised the trigger, down went the trap, and one or more of the wire spikes pierced his carcass. The spikes were six inches long, and the trap was weighted with two bricks. It took about two weeks to rid the place of moles with that thing.

* * *

Home Picnics I notice that it is becoming "fashionable" for farmers to have little ice-cream sociables and teas occasionally on their lawns and in their own little groves. Twenty to fifty neighbors are invited some afternoon or evening, and a good time is had. People used to think it was absolutely necessary to go to the woods among the mosquitoes, ticks and briers to have a picnic, but they are becoming more enlightened. On the home place they have every convenience for making tables and seats with very little work; have an abundance of good drinking-water, which is often hard to get in the woods, and if anything hot is needed the stove is close by. One old farmer I know, who is very fond of these little outings, said, "It took me forty years to learn that the best place in the world to have a real good little picnic is at home or at a neighbor's. Here's everything we need for a good time right at hand, plenty of shelter in case of rain, lots of fresh air, lots of room, and no howling fakirs, gambling traps or undesirable trash. We have speaking, singing, music and fun, and go home feeling good instead of worn out. We farmers don't have to go to a 'commercial' picnic to have a good time if we have sense enough to know it!"

* * *

Post Checks One thing needed very much by farmers, especially those living far from large towns, is some cheap and easy means of sending small sums of money by mail. We need this badly. When one desires to order a few seeds, plants or small articles of merchandise through the mails he must either send the amount in stamps or go through a tedious and expensive process in procuring an order for it. The idea that we must, in this day and age of improved postal facilities, pay seven cents besides the postage to send a small sum of money through the mails seems preposterous. I understand that there is now a bill before Congress, which, if it becomes a law, will entirely obviate this trouble. This bill provides that postmasters shall issue what are known as post checks to all who apply for them. The amount is handed to the postmaster, the check issued, and all one has to do is to write the name of the person to whom it is to be paid on it and forward it with his order. This is the measure we need, but it is being opposed by those who are making money out of the present cumbersome system. Speak to your congressional candidate about this. He is looking for votes now.

FRED GRUNDY.

THE GOLDEN COLOR on a Jersey's hide is a "skin-deep" color which goes on inside.—Rural New-Yorker.

OUR FARM

FARM THEORY AND PRACTICE

PLOWING DOWN GREEN STUFF.—For years it has seemed to me that there was not full appreciation of the value of decayed organic material in the soil. Humus-forming matter is almost the life of the soil, furnishing available plant-food and holding moisture. For this reason it has been urged that ground otherwise bare in the winter should be growing rye to be turned under in the spring for corn or potatoes, if a better cover crop for winter, like crimson clover, was not sure. But complaint comes occasionally that the rye sod does badly, giving a stunted growth of corn. Investigation shows usually that the rye was left until in bloom before turning under, and again should the fact be emphasized that such late plowing is dangerous. The rye that is not turned under until it is in head does just what it should not do, and leaves undone what it should do. It pumps the water out of the ground, and then in its woody state it lies in the bottom of the furrow, to dry out the surface soil yet more. In a wet summer good results have been gotten from such late plowing, but there is always serious risk. The safe thing to do is to get a strong fall growth, and then in the spring turn the sod under when the growth is about a foot high. At this time there is a mass of roots, the top rots quickly, the ground has not been dried out by the growing crop, and the rotted material helps to hold moisture, not sending it off as does woody straw in the furrow. "Waiting to get all there is in it" is poor policy in the case of a green growth intended for plowing under. Disappointment comes from lack of moisture, due to letting the growth staud too late in the spring.

* * *

RYE HAY.—Some farmers speak well of rye hay. I confess that it has so little value to me that I would not cure it for it if ground for fodder corn were available. The stalks are tall, thick and woody, and the horses will not eat it until hunger forces them to it. Rye does for soiling early in the season, but the hay is inferior to any other material that is dignified by the name of hay. The exception to this rule may be in the case of very thick seeding, where crowding keeps the stalks small. One stockman says that he uses rye hay freely, and inquiry brought out the fact that he grazes the rye heavily for a month in the spring, keeping the growth to the ground, and then the rye makes a thick growth that gives a fairly fine hay, and it is not unpalatable if cut early. Such a plan may work, but hay made from our unpastured rye, seeded at the rate of six or seven pecks to the acre, is not to be considered so long as other hay or corn stover can be gotten.

* * *

CURING CLOVER HAY.—Public attention was called last spring to a way of making clover hay in showery weather, and many farmers have been experimenting with it this season. Some report good results, and I can do the same. The theory is that the clover should be put into small shocks before it cures perceptibly, and that it then lies so closely and heats so much that it readily throws off all moisture, even if the weather be showery for two or three days after the clover has been shocked. The shocks should be small at the base, with straight sides and flat top. That causes a regular, and not undue, heat throughout the mass.

So often the weather is threatening at the time clover should be cut. If one waits for fair weather the clover becomes too ripe, and very often more rain comes before all the hay is ready for the mow. The showery or threatening weather is the time to push the cutting and shocking, making sure that none of the clover is exposed to the air or sun until it is more than fairly wilted and limp. The rake follows within two hours of the mower. In case a rain catches some fresh-cut clover no harm is done if it is shocked as soon as the most of the water has evaporated. The shocks should not be more than three feet through and about that high. In this green state they stand the rain all right. The heating throws off the moisture, and in the good weather that usually follows a few days of rainy weather the clover shocks cure out nicely. They are inverted and loosened up an hour or so before being drawn in, and a better article of hay is secured in a rainy season than is often gotten in good weather when cured in the swath. The leaves and heads are saved in a nearly perfect manner.

* * *

WORKING WHEAT GROUND.—A farmer reports that he worked his wheat ground too much last season, with the result that his crop is not nearly so good as that of his neighbor who did less work. He used the disk-harrow thoroughly soon before seeding, and it was the time of the working and not the tillage itself that was wrong. When ground is broken for wheat the breaking should be early, and the deep tillage should be given several weeks before time of seeding.

Of course, a good yield may be obtained from late plowing, and equally, of course, a late disking of the ground may do no damage; but this is when the season is wet and there is no lack of moisture during the fall. The safe thing is to look after the supply of moisture. Give the deep tillage early in the season, and let after-tillage be on the surface, fining the top while the soil beneath is being packed. The seed-bed should be made firm before the seed goes into the ground. The disk-harrow stirs and airs the ground, and that is needed to free the fertility; but such work should not be done so late that the ground cannot be made firm. I like to have the soil so compact that a horse's foot does not sink into it more than an inch when the drilling is being done. Have the seed-bed first fine, then firm, and do not disturb the moisture that rises in such soil, except by the use of surface-harrows that keep the surface soil well stirred.

* * *

WHEAT-STRAW.—The crop of timothy-hay is light, and prices promise to be good. Liverymen have learned the value of bright wheat-straw for feed, but the farmer of the central and western states learns this slowly. It can be baled at an actual expense of about one dollar a ton, and then the storage is easy. It often would pay to save the straw under cover as carefully as hay, and give no other roughness to idle horses and colts. They will eat the chaff, blades and smaller straws readily when it has been saved properly, and the refuse makes good bedding.

DAVID.

SOME FRUIT NOTES

The strawberry season just ended has demonstrated anew the fact that only by growing first-class varieties, assorting them so as to market in the cities at least only the highest grade, and see that they are well and attractively packed, can we hope for profit in sections close to the larger markets. Just as our home crop was coming on and ready for market very fair berries grown farther south could be bought, at retail, six boxes for a quarter of a dollar. It was evident, therefore, that home crops could not be expected to bring profitable prices unless extraordinary care was taken in marketing them. I have a good trade in fancy fruit, but it is limited to a near-by market, the prices received being high largely because of the care taken in making the package unusually attractive, a plan that could not be carried out to advantage if the fruit was to be shipped. The outlook was certainly discouraging, so I tried the plan of putting up the best berries in pint boxes and sending them to the commission-merchant in New York, with instructions to offer them to fruit-men located in the passenger stations of the railways. My instructions were to ask a fair price for the fruit, but to divide it, in small quantities, among fruit-stand owners who were known to be honest and progressive. The idea was that this fruit could be sold to travelers, who would buy a small box of berries to eat on the train; a quart box might be more than they would care for. The plan came to me from having seen at different periods travelers eating berries on the trains just as they would peaches or other similar fruits. The idea was a new one, and possibly for this reason took well. At any rate, I disposed of all my first-grade fruit in this way and at good prices. I have learned that the men who handle fruit at stands near railway stations are always ready to try, to a limited extent, any novel plan, and they are excellent judges of the wants of the traveling public. As one of these men told me, the very size of the package of berries, together with the dainty way in which the fruit was packed, sold them, and at high prices, when right alongside of these pint boxes were quart boxes of fair fruit at low prices. The small boxes would attract the ladies especially, and their comment, "Aren't they cute!" generally meant a sale of one or more boxes.

It is admitted, of course, that the plan here given cannot be followed under all circumstances and in all localities, but it is simply an instance of what farmers and fruit-growers must keep in mind; namely, that every effort must be made to cater to the tastes of the people whom you expect to use your products. These little conceits may seem trivial to the average farmer, but we must learn, as stated, to supply the demand, whatever it may be. As one of our successful poultrymen said, "If our customers demand that we tie the legs and necks of our fowls with blue baby ribbons we will do it, provided they are willing to pay for the decorating, as they always are."

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BRANCH OF THE RATHBUN BLACKBERRY

The Rathbun blackberry has become wonderfully popular throughout the country, and if my experience with it counts for anything, it is one of the best, if not the best, of the later introductions for light, sandy soil. Some of my correspondents in the far North write me that the variety has proven entirely hardy with them, coming through the severe winter of 1898-99 in good shape. With me its strong points are its high quality and uniform size throughout the season, characteristics fully appreciated by any grower who has to cater to a critical market. The illustration, from a section of a branch just before the last picking for the season, shows this uniformity of size as well as the fact that it is a great bearer. I tried a plan with crimson clover among my blackberries after fruiting last season which promised well. The soil was somewhat deficient in nitrogen, very little having been applied since a crop of crimson clover was plowed under some five years ago. After the blackberries were picked I sowed the ground to crimson clover, which made a good growth before frost owing to the late fall. It came through the winter nicely, and was plowed under late this spring. The result was I never had finer-looking plants nor a better show of berries than this year. This was in the nature of an experiment only, and as it will be repeated on this and other sections of the grounds this year, I will know later whether it is worthy of general notice.

G. R. K.

A HINT TO FRUIT-GROWERS—HOW THE DOCTOR SAVED HIS FRUIT

I have amazed myself a few years past in attempting to originate some new and valuable varieties of fruit by hybridization. Like all experimenters, I look for some wonderful results; but not too confidently, as I am well aware there are innumerable failures to one success. The future will tell; and then I will tell. At present I am reminded of something else.

One of my new peach-trees bloomed last spring—a year sooner than I had expected. I watched the blossoms anxiously from day to day; four formed fruit, and three small peaches remain on the tree now, and promise to remain until they ripen. Is it any wonder that I value these more than all else in my garden, and that I regret that the tree to furnish the first reward of my labors should happen to be the nearest to the street, where the luscious fruit—of course, it will be luscious—cannot fail to tempt the thoughtless and hungry boy? I wonder if I shall eat it.

A horticultural writer recently made lament that the crime of stealing fruit from the tree is usually regarded with extreme leniency; that the theft of a few cents' worth of apples from a grocery-store would be likely to be punished, while the man who would cause the prosecution of a neighbor's son for pilfering fruit from his orchard would be generally denounced as a curmudgeon. The writer will receive the sympathy of many who have attempted fruit-growing in the suburbs of large

[CONCLUDED ON PAGE 6 OF THIS ISSUE]

THE BELGIAN-HARE DELUSION.—So much has been already said about Belgian hares that I will not again refer to the subject without provocation. But from the frequent letters I am still receiving in regard to these animals I conclude that the topic is one of more than common interest to a good many of our readers. In one of my papers (Farmers' Voice) I notice some comments on the Belgian-hare delusion that makes me think of one of Josh Billings' sayings: "Indeed it is better to know but little than to know so much that isn't so." Take this, for instance: "Owing to the phenomenal fecundity of these animals, we believe that if they are as extensively bred as reports indicate they will be, in a few years we shall be compelled to legislate against them or offer a reward for so many scalps, as the Australian government does in the case of common hares. They will give no end of annoyance and trouble to farmers, upon whose crops they will prey. When almost everybody begins to grow them they will become very numerous throughout the country, and the wooded country will teem with them, as in many places it does now with the common native hares. They will revert to their native habits, their wild state, and then trouble will begin." The person who wrote that nonsense is not acquainted with the Belgian hare. That seems sure enough. I have bred them since about 1872; had a large drove of them at large at one time, so that I found them in the orchards and in the woods all around me. I got some of them; foxes and dogs got some of them; hunters killed a few more, and the balance disappeared. They never seemed to increase while at large, and they never did serious damage to my crops that I knew of. Not even a young tree was barked by them. Once or twice they ate off a few bean-vines—that was all.

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GROWING CAULIFLOWERS.—Mrs. Dr. W. B. C., of Charlottesville, Md., tells me that she is making her first attempt to grow cauliflowers, and she would like to know how to make the plants head. Cauliflowers are usually considered a difficult crop to grow, yet I am having no trouble. In fact, I usually have cauliflowers in early summer even before I have early cabbage. Cauliflowers started from seed and set out in open ground head before the cabbages do. But they want good ground and good cultivation. You can't raise them in thin ground or in a very hot and dry season. I aim to have plants head early, before the torrid heat of midsummer, or late, when that heat is past and the nights begin to get long and cool. Plenty of plant-food and a never-failing supply of moisture—that is the key to success in growing cauliflowers. Use your best manure, and plenty of it, for the crop, and in hot, dry weather apply a mulch all over the ground around the plants if you can get material for it, such as coarse manure, straw, hay, weeds and rubbish of any kind. It will help to keep the ground cool and moist. For the late crop I invariably sow the seed directly where I want the plant some time in June, then thin to one plant in a place and give good cultivation and perhaps mulch. I seldom fail to get good heads in this manner.

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GROWING ASPARAGUS.—A reader in Grantville, Kansas, asks for information on the planting and the care of asparagus; how to prepare the ground, at what time of the year to set the plants, how far apart, etc. I know of no other vegetable which gives one so much table enjoyment as does asparagus. I have it from May 1st to about July 1st, or eight weeks, and during this time—a full one sixth of the year—there are very few days on which I do not have asparagus on the table in some form once or twice. Now and then one finds a person who says that he or she does not like asparagus. The great majority, however, do like it, and more would do so if they had it served to them in the style that happens to suit their individual taste. Those who do not like it when cooked like green peas may try it prepared in the French or German style, with a sour dressing, or boiled and served cold with vinegar as a salad, or parboiled, then rolled in bread-crumbs and fried. Most people will learn to appreciate it in one way or another. I like it any way it is cooked.

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In order to make a new plantation you have got to have plants. I think strong one-year-old plants are best. You can buy them at one dollar or less for one hundred, or you can easily grow them. Asparagus grows easily from seed. Sow it in rows, like radishes, but perhaps more thinly; then thin the plants to stand from two to three inches apart in the rows. That, in good garden land, will give a nice lot of fine plants by another fall or spring. Select a suitable strip of warm soil—as, for instance, off one side of the garden. Make this very rich by applying as much manure as you can thoroughly mix with the soil. You cannot have soil too well manured nor too rich otherwise for this crop. If you use complete fertilizer don't be afraid to put on a ton or two to the acre. Plow deeply, then lay out the ground in deep furrows, say five feet apart, and in the bottom of these furrows set the plants, say two feet apart. What you want and what the market wants is large, fat stalks, not the small, miserable things which one can grow by setting plants more closely and in poor soil. Gradually fill up the furrows until level with the rest of the ground; then keep cultivated and hoed until next spring. Of course, it is advisable to grow another crop between the asparagus-plants the first season, such as cabbage, cauliflower, beets, carrots, or whatever you like. Have one row between each two asparagus rows, and cultivate by horse-power. The spring following give another dressing of commercial manure if you have it, or put on some more fine manure and work that into the surface soil. Ridge up slightly over the rows, and if you wish you may cut a few of the stalks in the earlier part of the asparagus season, but not very many. I believe it would be much better to let all grow and to give the roots all the chance to develop; then begin cutting for use or market the third season. The ridge over the plants should be kept loose and mellow all the time. If the soil is rather clayey, like that of the correspondent near Washington, D. C. (who also inquires about this), the application of plenty of manure, muck, chip dirt, sand, etc., will help to make it loose. The stalks should find but little mechanical resistance to their growth. Of course, the land should be well drained.

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M. S. H., of Port Byron, Ill., asks how many weeks it is safe to cut asparagus when the bed is once well established? I cut everything sleek and clean—keep the bed as bare as a floor—from the time the first stalks appear in April or May until we have green peas in June—usually about from the 15th to the 20th. After that the stalks are left to grow undisturbed. This, I think, will give the desired information.

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FERTILIZERS FOR SANDY SOIL.—A Ware county (Georgia) reader says: "This section of the state is very sandy; so much so that when the ground dries after a rain it looks as if a slight snow had fallen. About six inches under the surface the soil is of a yellowish cast, but still mostly sand. All our farmers use commercial fertilizers, buying one kind for twenty dollars a ton and another for twenty-two dollars. Where this stuff is used it produces fairly good crops of grain, also sugar-cane, peanuts, sweet-potatoes, etc. The formula given on the bags is unintelligible to me. Now, what is the best thing to use on this land?" Of course, I can do but little more than make a guess. The fertilizers in question being cheap are probably mostly phosphate manures. Possibly they may contain a small percentage of nitrogen and potash. It speaks well for them that they show fairly good results. The most necessary thing to do in your case, I believe, is to put plenty of humus into your soil, and this you can do by growing cow-peas. I advise you to read the cow-pea special of the "Practical Farmer" (issue of April 24th) very carefully, and act accordingly. Then buy superphosphate (dissolved South Carolina rock) and muriate of potash, and apply this as needed.

T. GREINER.

INQUIRIES ANSWERED

BY T. GREINER

Forcing Tomatoes.—S. C. M., Calla, Ohio, writes: "Can tomatoes be successfully grown in a house sixteen or twenty feet wide and fifty or seventy-five feet long without benches and with the hot-air system in heating? If not, what would be the next cheapest construction in forcing tomatoes so as to commence fruiting about the first or middle of January? What varieties are used? Also what price can be realized for a season, on an average?"

REPLY:—I have my doubts that it is practicable to heat a tomato-forcing house with benches on ground level by means of a hot-air furnace. Yet I have not tried it. I would prefer the hot-air or steam system, by which the heat can be more evenly distributed. If you can solve the heating problem all right you can force tomatoes on the ground level as well as on raised benches. Lorillard is probably one of the best of tomatoes for forcing, but different seedsmen also recommend various other sorts. You might try Fordhook Fancy, an upright sort, which sets fruit in greenhouses quite freely. Of course, prices of winter tomatoes vary in different localities. An average for the winter would probably come near twenty cents a pound in most localities where tomatoes find ready sale.

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

Transplanting Currants.—H. M. Z., Weiffers, Pa., inquires when would be the best or proper time to plant or transplant currant-bushes. I regard autumn as the best season for planting currants, but have succeeded nearly as well in early spring. If kept moist there is little danger of the plants dying at any time, but those set in the fall or early spring make a larger growth the first year than those planted when the buds have developed into leaves. They should be set in the autumn any time after the leaves have fallen and the wood is ripe, or in spring as soon as the ground is dry enough to work.

Apple-tree Fire-blight.—D. W. S., North Madison, Ind., has an orchard ten or eleven years old, and early in spring the tops of new growth look as if frosted. Commencing with a few dead leaves on the tops of the limbs it often works down and kills even large limbs. He wants to know what is the disease and the remedy. The disease is undoubtedly what is known as the fire-blight, that attacks all members of the Pyrus family at times, but is usually most prevalent on the pear and Siberian species of apple, and is the most formidable disease to which these trees are liable. It attacks the trees at different periods of the growing season, from June to September, and generally in the young parts first. On the pear it is often fatal to the tree, but on the apple less fatal, rarely killing more than a portion of the tree. It is thought to be encouraged by the trees growing too rapidly, and warm sunshine in sultry weather, and perhaps it is best not to use stimulating manures too freely on a thrifty orchard. In the West it has been found less prevalent in orchards that have good air drainage. No sure remedy for it has so far been found. The nearest to a remedy is to cut away the blighted portions several inches below where they are affected as soon as they are discovered and burn them.

Diseased Apple-tree Bark.—J. M. A., South Middleboro, Mass., sends a sample of bark from an apple-tree, and writes that the majority of the trees in the orchard are affected in a similar manner. I am not able to name the cause without seeing the trees or knowing more about the treatment they have had in the past. It appears to be a canker, which might be caused by pruning in previous years just after the circulation of sap had begun and before the trees were fully leafed out, or by frozen sap-blight, or by some fungous disease, but the sample does not show the presence of any active fungi. I would advise scraping and cutting away all affected parts, and washing the trunks and larger branches with a strong soap-suds to which is added one half ounce of carbolic acid to each gallon of the wash, and two or three weeks later giving all of the trees in the orchard a coat of lime whitewash, and at the same time giving the soil frequent shallow cultivation until about the first of August. An analysis of the soil might show a deficiency of some element that is essential to the health and fruitfulness of the trees. 2. The field of apparently good land that does not yield good crops of corn and potatoes would probably be greatly benefited by growing upon it clover, cow-peas, or even rye or buckwheat, and turning the growth under before the seed is ripe. From long shading the soil may have become sour or sodden, in which case a dressing of air-slaked lime would prove beneficial.

Cherry Mildew—Varieties of Strawberries.—J. H., Kratzerville, Pa., writes: "I have cherry-trees that were grafted this spring. They grew a little while, then the leaves on graft curled up and stopped growing, and a substance having the appearance of mildew formed on the upper side of the leaves. What is the remedy?——Are Mitchel's and Michael's Early strawberry the same berry? 2. Which is the earliest and which is the largest strawberry that is likely to succeed in general cultivation?"

REPLY:—The cherry grafts are likely affected with a minute fungus, or mildew, that attacks the newly expanded foliage at the ends of the branches, checks the growth and often causes blight. It may be caused by overstimulating with barn-yard manure, imperfect soil drainage, scions from diseased trees, uncongenial stocks, or a number of warm days followed by a cold, rainy day. The most common antidote for mildew is powdered sulphur, applied to the foliage with a powder-gun or sulphur-bellows when there is dew on it. I have never tested it, but believe that spraying with Bordeaux mixture early in the season would prevent the disease. ——The Mitchel's and the Michael's Early are one and the same variety. Mitchel's Early is generally recognized as the correct name of the variety. 2. I consider the Excelsior one of the most promising of the very early strawberries. It is perfect-flowering, productive, and ripens three to five days earlier than Michael's. The largest strawberries that have been tested enough to warrant them being worthy of general cultivation are Nick Ohmer and Clyde.

Grafting the Orange.—K. D., Ogle, Pa. It is presumed that your orange-tree is growing in a pot or tub. The best time for grafting it would be in late winter or early spring, and the scions should be taken from bearing trees or from grafted or budded trees. The best method would be the side or veneer graft. To make it, an incision is made upon one side of the stock just through the bark and about one inch long, the bit of bark being removed by a downward-sloping cut at the base, which leaves the bottom something like a small notch. The base of the scion is cut off obliquely to fit the notch, and upon the longer side a portion of bark is removed corresponding to the portion taken from the stock. The scion is tied tightly to the stock with raffia or some soft string. If properly done the wounded surfaces are completely covered, making the use of wax unnecessary; but it will do no harm. The stock may or may not be headed back before the scion has united with it. Shading for a few days, and keeping the graft enveloped with damp sphagnum until the scions are well established, tends to make the operation more successful. Whip or splice grafting is a simpler method, and would likely prove as successful at the hands of a novice as the other. In this the scion and stock should be nearly of the same diameter at the point where grafted. Grafting of the orange is often unsatisfactory, and I think the best method of changing the tree is by shield-budding, which can be done at any time when the bark will peel or separate freely from the wood, but it is best done in the spring. The same methods and treatment apply to the lemon-tree. The tying should not be taken off until the scion or bud has become well united to the stock.

Plum-leaf Plant-louse (Aphis Prunifolia).—M. P., Springdale, Ark. The leaves from a plum-tree which you inclosed are infested with what is known as the plum-leaf plant-louse. When very numerous, as they appear to be on your tree, they often do great injury to the plum-trees by causing the leaves to curl and the terminal growth to cease; also in very bad cases causing the death of a considerable portion of the season's growth and greatly injuring the quality of the fruit. This particular species of aphis will not harm any other orchard-trees except plums and cherries. As they are sucking insects, and obtain their food by inserting their long, tubular beaks into the tender new growth, sucking out the sap, and rarely change places until that particular spot is exhausted, they cannot be destroyed by spraying with poisons. One of the best remedies I have ever tested is tobacco-water. It is made by boiling tobacco-leaves or the refuse stems and stalks of the cigar-factory. A large kettle is crowded full of them, covered with water and boiled until a strong decoction is made. This is applied to the stems and leaves with a garden-syringe or spray-pump, or with small trees by dipping the twigs into the solution. It can also be applied with a whitewash-brush, dipping it into the liquid and shaking it sharply over the infested parts. This, or a whale-oil soap solution, will kill every species of plant-lice and nearly all other insects that infest fruit-trees. The whale-oil soap solution is made by dissolving two pounds of this soap in fifteen gallons of water and applying the same as the tobacco-water.

CHINESE LAND-TAXES AND CURIOUS CUSTOMS

[CONTINUED FROM PAGE 1]

find things here the opposite of what we would naturally expect, so that such discoveries do not astonish us any more.

But of all curious customs in connection with farming in China perhaps the most surprising and characteristic is the rotation of the cultivation of land in a large family, or clan. A rich man dies, leaving a large landed estate to his children. Fearing lest in time his descendants will become too poor or too indifferent to his memory to offer the customary worship to his shade, he entails a large part of his fields for that purpose. It is provided that these fields shall never be sold nor divided among his heirs. They shall be cultivated by them in the order of primogeniture, and the one whose turn it is shall be responsible that year for the sacrificial worship to his ancestor. It is simple enough the first generation. The rich man had say three sons. Each one has his turn once in three years. But the next generation might consist of three times that number, and the third three times nine. It sometimes happens that a very large estate is entailed in this way, and it rotates so slowly that each heir has his turn but once in a lifetime. It is a common thing for such men to borrow money on large interest secured by their future turn of the ancestral estate, and by the time the long-expected year arrives all the income belongs to the rapacious creditors. In any country but China such a will would be broken; but such is the hold of the ancestral worship and reverence for the wishes of their fathers that the will is sacredly carried out even at the cost of such trouble and patient waiting as above described. Of course, in large estates the actual cultivators of the land are mostly renters. It is only a rotation of the collector of the rentals. This system is very extensive in certain sections of South China, sometimes including the bulk of the land under cultivation.

It is easy to see how such a custom kills enterprise. This land cannot pass from one owner to another. No one can give another a title to it. Each cultivator is interested in getting as much as possible out of it while in his own hands, not in keeping it up to its highest fertility by careful cultivation, rotation of crops and fertilization. It is the icy hand of death at the throat of the living generation choking its life. It encourages idleness in a large number of people who prefer to wait for their turn rather than work for their living. Idleness in China with money in hand or in prospect insures a profligate and vicious life. However, the custom will doubtless gradually die out in the new China of the twentieth century, which is sure to arise and break the fetters that have so long bound it to a dead past.

A HINT TO FRUIT-GROWERS—HOW THE DOCTOR SAVED HIS FRUIT

[CONTINUED FROM PAGE 4]

towns. Of late years these suburbs have been greatly extended by good roads and the bicycle excursionist. I have sometimes advised advocates of road improvement to keep the arguments of wheelmen's clubs in the background when seeking the co-operation of farmers. The sight of a dozen cyclists lounging in his orchard on a warm Sunday afternoon in the height of the fruit season is apt to cause the owner to wish that the road leading to the nearest town were not in quite so good condition. Of course, he is wrong; but irritation is not conducive to correct reasoning.

Many years ago I had personal knowledge of how one suburban resident protected his fruit. He was a retired physician, who had been in such active practice that his passion for horticulture had been, perforce, repressed for many years. He had studied the standard books and periodicals on the subject, and had made such experiments as were practicable—and some that were not—in the small back yard of his city home; but the office and the daily round of calls claimed nearly all his time. In late middle life he bought ten or a dozen acres of land a short distance from the New England city where he lived, had it put into a high state of cultivation, and finally built a house and moved into it to enjoy for his remaining years the pleasures of which he had dreamed ever since he left his father's farm.

Carefully selected fruit-trees had been planted; a large garden had been cultivated under his direction, and was waiting for his personal supervision; there was to be no delay in his entering into his kingdom. Alas! where he had sown others reaped. I visited him the second year of his country residence and listened to his tale of sorrow. His disappointment was great. Grapes, apples, pears and plums disappeared before any reached maturity. None were left even for samples. His grounds were large, there were no policemen worth mentioning, and any sort of protection that would inflict personal injury was not to be thought of. The case seemed hopeless!

I visited him again in the autumn a few years later; trees and vines were loaded with fruit, and the doctor was contending against nothing worse than insect enemies. He laughingly told me how he had overcome his difficulties.

"When the marauders began their work last year I told my gardener to employ the next night as many men as were needed to surround the grounds, and to catch each person found stealing fruit and bring him to my study. In the course of the evening they brought in four boys, all belonging to respectable families in the neighborhood. They were very contrite, and begged hard not to be punished or exposed. I gave them a serious lecture, read the law under which they could be punished, and agreed to let them go and to keep silence about the matter on this condition: They were to sign a confession that they had habitually robbed me, and I was to use this document, in addition to other evidence I had against them, only in case I was again troubled in the same way. If I was robbed in the future I should assume they were the robbers.

"I have now," added the doctor, "as efficient a body of police as any one could desire. These boys are strong, active fellows, and are leaders among their cronies; they have passed the word around that my grounds are to be let alone. If a crowd of hoodlums should come out from the city in search of fruit, they would meet a warm reception. I couldn't have bought such service at any price."

The good doctor lived to enjoy his country life, his trees and garden for many years. Not long ago I met one of his executors, who said:

"In looking through Dr. Blank's private safe I found a paper which puzzled me. Perhaps you can explain it. It is a confession, signed by four persons, that they had stolen his fruit, and the signers are among the most prominent men in our town. Do you know what it means?"

Then I told him the story, as I have told it here. C. S. CUSHMAN.

SLIMY BREAD

During the last year or two, in the summer more particularly, considerable loss has been suffered throughout the country from sticky or slimy bread. For the first two or three days after being baked the bread reveals nothing unusual—in fact, looks and tastes like the best—but after that it begins to turn a light brown, to taste sweetish and to emit a peculiar odor. The most remarkable development, however, is its sliminess or stickiness. When touched the loaves are found to have an adhesive covering that becomes more marked with age, the gluey substance becoming so elastic that threads of several feet in length can be drawn out. Since the careful as well as the careless housewife suffer alike the trouble cannot depend upon the bread-maker. The following brief remarks will explain the matter.

Of course, it is a microbe, and the means by which it gets into the bread is a question of much importance. Cases having occurred where different brands of both white and Graham flour were used for gems, for bread and for biscuits indicates that the flour is not at fault. But cases where certain brands of yeast regularly produced the stickiness at once show that the yeast is to blame.

The bacillus that causes this trouble is a very common one, and very well known. Its various forms possess the following remarkable characteristics. In the vegetating stage one hundred and fifty degrees temperature will kill it within an hour, and if exposed to the air while in this form one hundred and ninety-five degrees will prove fatal almost instantly. In this stage also an exposure in a moist state to a temperature of two hundred and fifty degrees may be withstood for a quarter of an hour, but if the microbe be dry even three hundred degrees may be borne for twenty minutes without injury to life.

Now, in bread-baking, though the temperature of the oven may rise to more than three hundred and fifty degrees, it has been noted that the dough does not become hotter than two hundred and twelve degrees. This is because of the water, which, so long as it exists in the mass of dough, will keep the temperature at or below the boiling-point. Therefore, if the microbe be in the spore stage it can stand all the heat that is applied in baking the bread and be ready for business as soon as conditions favorable to reproduction present themselves. These conditions are a warm air such as we have from June to September.

The trouble is likely to occur so long as yeast-makers are careless in preparing their product. The only advice that can be given to the housewife is to keep the bread as cool as possible after baking, so that the microbes cannot grow quite so fast, and to make only a small quantity of bread at a time, so that it may be all eaten before the trouble becomes noticeable.

There need be no cause for alarm and excitement about this trouble, because the microbe is not seriously harmful in small quantities, and because as soon as the alteration in the bread becomes noticeable no one would care to eat it even if very hungry.

M. G. KAINS.

CORRESPONDENCE

FROM GREEN MOUNTAIN STATE.—Windsor county is situated in the southern part of Vermont, and abounds in cozy homes, good schools and well-built highways. It has many excellent forests of large trees of birch, beech, spruce, hemlock, pine, maple and many other varieties. Vermont produces her full share of pure maple-syrup. Dairying is the leading occupation, the hillsides furnishing excellent grazing, while the valleys are very fertile and adapted to raising corn and all kinds of grain. As for fruit, no place is more suited to apple culture. Like many Eastern states the villages are manufacturing towns. Ludlow is a busy manufacturing town of Black river valley; is situated twenty-five miles south of Rutland, on the Rutland railroad. It has a population of over two thousand inhabitants. The price of real estate is very low, possibly lower than any other section in our country, when cultivation and buildings thereon are considered, as land of a standard quality and fertility is being purchased at the worth of the buildings they contain. E. N. W.

Ludlow, Vt.

FROM FLORIDA—CASSAVA-FACTORY NEEDED.—Citrouelle would be a most appropriate place for a cassava-factory. Within a radius of ten miles there are thousands of acres of open land which could be bought for from fifty cents up to $5 an acre. It has been proven beyond a doubt that cassava can be raised here abundantly. This is light, sandy soil and well adapted to the culture of cassava. There is no clay and the roots have nothing to prevent them growing, unless they run into a phosphate-bed, for the ground is nearly all underlaid with phosphate, which is a great fertilizer for the cassava. This is not much of a farming country, and if a cassava-factory was started here it would cause the opening up of all the government lands. Citronelle is a small village of five hundred inhabitants, eight miles from the Gulf coast, on the Plant system of railways. There is a large sawmill and extensive turpentine-works here. I have been living here nearly two years, and have never seen a more peaceable, quiet people. If we could only get Northern capital invested here we would have something that would be a paying industry. There are three or four cassava-factories running successfully now in Florida. Cassava is used for the manufacture of starch. The roots are the part used, and are similar to the sweet-potatoes. They are also used to make an excellent pudding, which I think is far superior to many puddings I have eaten. V. H.

Citronelle, Fla.

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THE POULTRY-YARD

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THE FRENCH BREEDS

The most appreciated poultry in the Paris market is undoubtedly the Houdan, easily known, even when plucked, by the five toes, and by their legs, which are of a pinky hue splashed with a grayish blue. It is an excellent bird, with a quick development, produces large white eggs, which are preferable to those of the Cochin and its crosses, which have a yellow tint, the white eggs being preferred in the Paris markets. It may be claimed that Houdans when well fed and in comparative liberty are at four months old as large as the parents. In this country Houdans have proved to be the hardiest birds of the French breeds. They do not sit, which is a defect inherent in their quality of being good layers. There is sold annually in the markets of Houdan, Dreux and Nogent-le-Roy about six million francs' worth of fat poultry of this breed (nearly twelve hundred thousand dollars). The Crevecoeur is also a valuable bird. The flesh is very delicate; it grows rapidly and fattens easily; the eggs are very large, of an average weight of two and one fourth ounces each. At an adult age this bird weighs over nine pounds. At two years old some weigh ten pounds and over. It can be put up to fatten at three months old, and at the end of a fortnight is fit for the table. At five months this bird attains its full development, and at that age it weighs about seven or eight pounds, and sometimes more. La Fleche is not so precocious as the former breeds. At the yearly exhibition in Paris they were admired on account of the quality of flesh and fattening propensities. It is slower in growth, and is therefore offered in the market when other breeds have disappeared. Of all the French breeds it is the longest in legs. Capons and pullets of this breed fatten well at from nine to eleven months, when they obtain the maximum of their growth. A fat pullet weighs from eight to ten pounds, and the capons go beyond sixteen pounds. Their flesh is very fine and delicate in taste.

FORAGING IN SUMMER

It is the active, busy, foraging fowls that continue to lay and seldom become broody, but any breed of fowls will become sitters if confined and fed liberally on grain. When the hens have a range, and are busy at work, they naturally keep themselves in what is termed "good laying condition," for the reason that when they forage and work over a wide area they secure a greater variety of food, have plenty of exercise, breathe more fresh air, are less subject to disease, and the food is more balanced. When fowls are fed liberally they have no incentive to forage, and become fat, and they then are out of laying condition. It is claimed that the hen that forages and lays a large number of eggs in summer pays more than one which lays fewer eggs in winter, even with the advantages of high prices during the cold season, as the expense is much greater than for the summer. The profit is that left over after all expenses are deducted, and the high prices for eggs in winter will not produce a profit unless the expenses are such to accomplish that purpose; but in summer almost any price for eggs gives a profit. Foraging in summer permits the fowls to utilize materials on the farm that would otherwise give no return.

SYMPTOMS OF CHOLERA

Cholera is epidemic and very contagious. It is caused by overcrowding, keeping too many fowls in one place, bad sanitary arrangements and unwholesome food and water. The fowl has a dejected, sleepy and drooping appearance, is thirsty, has a slow, stalking gait, is sometimes weak, and falls down. The comb and wattles lose their color, becoming pale and dark; the discharge is greenish, like sulphur and water mixed, but afterward becomes thin and frothy; the crop fills with mucus and wind, and the food is not digested; the breathing is heavy and fast, with the eyes closed, and in a few hours death results. As a preventive remove all sick fowls; give tonics that will aid digestion; give the fowls more space; keep the house well ventilated, clean and dry; the yards and places of resort should be thoroughly disinfected with five ounces of sulphuric acid to one gallon of water, and spade up the yards and runs. Give the fowls a preventive that will render inert the poison in their system, for which the remedy mostly used is to add a teaspoonful of liquid carbolic acid to every half gallon of the drinking-water.

BUMBLEFOOT

Bumblefoot is caused by the perches being too small or uneven, or from flying down from a high perch onto some hard substance, which bruises the foot, and unless treatment is commenced at once and the cause removed the fowl will have a badly ulcerated foot. To cure, place the bird in a dry, warm coop, without perches, and have the floor well littered with chaff or fine hay. If the foot is only slightly bruised coat with iodine three times a day. If it is soft and swelled lance it, press out all the matter and cauterize with lunar caustic. If the foot is ulcerated cleanse thoroughly and bathe in a solution of carbolic acid and water. All treatment given will fail if the original cause of the disease is not removed. Do not have your perches more than twenty inches high, and for the Asiatics they should not be more than one foot from the ground.

YOUNG TURKEYS

The young turkeys should now be growing, and should also by this time have reached a stage at which they can care for themselves. They are sometimes made lame by being compelled to alight from some high roosting-place. This lameness comes on gradually, and there is no remedy but to put them in a shed and compel them to roost on straw at night until the lameness passes away. They like to roam and seek their food; but should the grass be scarce by reason of prolonged dry weather, they will appreciate a mess of food at night, and will also then more readily come up to the barn-yard than if left entirely to themselves.

SELL THE SURPLUS MALES

Every rooster not intended especially for breeding should be killed or sold as soon as large enough to eat. Not over one good rooster should be kept on any farm, and that one cooped and mated with not to exceed ten hens, the eggs from those hens to be kept expressly for hatching. The other hens should be kept especially for eggs for market or table use, and no rooster should be allowed among them. On the ordinary farms about one tenth of the fowls are roosters, which is about nine times as many as are necessary.

TREATMENT FOR GAPEWORM

Firstly, isolate sick birds, or, better, remove all the well birds to a new or not recently occupied pen. Secondly, kill all badly infested birds, and cook, burn or bury deeply in some place far removed from the fowl runs. If buried near, earthworms will find and eat the eggs of the parasite and convey the disease to the other fowls. If the dead birds are thoroughly boiled, so as to kill all worms and eggs, the carcass may be chopped up and fed to fowls without danger. Thirdly, disinfect the pens and yards by sprinkling with a diluted solution of sulphuric acid, using two or three pints of commercial acid to twenty-five gallons of water. Great care must be exercised in handling the strong acid, as it is very corrosive. The acid should always be poured slowly and directly into the water, and never the water into the acid. Where sulphuric acid is not convenient to obtain or use, kainite or air-slaked lime may be used instead. These should be liberally dusted over the yards and in the houses. Boiling water (in which dissolve as much kainite or common salt as it will take) makes an excellent disinfectant. Fourthly, give one teaspoonful of turpentine and one of asafetida in a warm bran mash to each twenty-five birds. A pill of camphor the size of a wheat-grain pushed down the throat has often given good results. Another good remedy is to remove the fluff from a small feather, except the tip, moisten this in turpentine or kerosene, and carefully push it down the windpipe, twisting it around. It will tend to kill all worms it touches, but cannot touch those in the lower bronchial passages. A looped horse-hair or fine wire pushed down the windpipe and twisted around will bring up many of the worms, but cannot reach those lower down. Great care must be exercised in handling the feather or loop, or else the bird will be strangled. Turpentine and asafetida mixed in the food soon load the fowl's breath with their fumes, and thus kill all worms in the bronchi as well as those higher up. Camphor acts in the same way, but is not as efficient as turpentine. A solution of salicylic acid—one third to the quart of water—should be given to the fowls to drink. Fumigation with equal parts of turpentine, sulphur and pine-tar, as recommended for bronchial and lung worms in calves (Bulletin 127, p. 112), will probably give good results in this case, and is easily applied if one has an air-tight room. A large dry-goods box will answer equally as well for a few fowls. The birds should inhale the fumes for a quarter of an hour or less, until they begin to be overcome by the fumes; then remove at once to the open air.—From Bulletin 131, North Carolina Experiment Station.

Cabbage is one of the very best vegetables to feed to poultry, as it keeps green a long time and the chickens enjoy picking at it. Hang it up where they can eat it readily without soiling it.—Selected.

CORRESPONDENCE

Liberal Feeding.—I have seen so much lately about the overfeeding of poultry that I have decided to speak my opinion on the subject. Now, I have raised poultry on a small scale for several years, and always with success, and I do not think there is such a thing as overfeeding if the right kind of feed is used. Wheat is the best egg-producer, with plenty of ground bone or shells (I use clam and oyster shells), and sour milk if there is any to spare. Chickens cannot, in my opinion, have too much of this kind of feed, as I always have plenty lying in the yard, and my hens pay me well in eggs for my trouble. I have tried other kinds of feed, but nothing has brought me such rich returns as that which I have already mentioned. Of course, cleanliness about chicken-house and laying-boxes has a great deal to do with it, too; also plenty of room for the chickens to run and scratch. O. B. B.

Willapa, Wash.

INQUIRIES ANSWERED

Animal-meal.—S. G., Memphis, Tenn., writes: "What is the proportion of animal-meal used with ground grain for poultry?"

Reply:—Usually about one to three; that is, one part of animal-meal to three parts of ground grain.

Picking Ducks.—J. M. E., Hancock, Md., writes: "What is the usual charge for picking ducks in the large establishments where ducks are hatched artificially?"

Reply:—From five to ten cents, according to the number to be picked. Where there are many ducks five cents a duck is the ruling price.

Dark Eggs.—J. R. B., Lisbon, Ohio, writes: "Which of the breeds lay dark eggs uniformly, and which breeds lay white eggs?"

Reply:—No breed contains individuals that fail to vary the color of the shells. For instance, Brahmas, Cochins and Langshans lay dark eggs, but some hens of those breeds produce lighter-colored eggs than others. The non-sitters all lay white eggs.

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QUERIES

READ THIS NOTICE

Questions from regular subscribers of Farm and Fireside relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Stink-bugs.—T. C. S., Warsaw. Ind., writes: "Lay an ordinary shingle flat on each hill—new ones preferable, as you can see the 'stinkers' more easily. As you go around to kill the striped bug take a paddle along; pick up the shingle and you will find them asleep on the under side. Smash them. I go over mine in early morning, and have caught as high as twenty on one shingle. I find sulphur and cayenne pepper a good dose for striped, or cucumber, bugs."

Preserving and Pickling Cucumbers.—R. A. S., Bentley, Kansas, and others. We republish the following, from Mr. Greiner's "Garden Notes" in a former number of this paper:

"Preserving.—The cucumbers are picked every other day in the morning as soon as the dew is off, and sorted into three sizes from two to seven inches in length, each size packed by itself. If possible, the packing is done in the afternoon of the day they are picked. Barrels may be used; when full the cucumbers are covered with brine of sufficient strength to float a potato. No more salt is to be added. After standing three or four days, to settle, the scum should be removed, and each barrel refilled from other barrels containing cucumbers of the same size which had been in brine of like strength. The barrels when headed up and marked are ready for shipment. A forty-gallon barrel will hold from five thousand to six thousand of the smallest size, and from ten hundred to fifteen hundred of the largest. The cucumbers must be cut from the vines with a sharp knife, or, better, scissors, leaving on each a bit of stem. Cucumbers put up in this brine will not shrivel, and need but little refreshing; but housewives must bear in mind that they will not keep through the second summer without adding more salt.

"Pickling.—Drain them from the brine, fill any receptacle two thirds full, pour boiling water over, and let remain twenty-four hours. If too salty (which will depend upon the size) pour off the water, stir thoroughly from the bottom, that they may freshen evenly, and again cover with boiling water. After twelve hours drain, and cover with boiling weak vinegar; three days later drain, and cover with cold vinegar of full strength sweetened and spiced or not, to suit the taste. I will say, however, that I do not know of any grower around here who ever sold his pickles in any other shape except just put up in brine. I am not aware that there is a wholesale market for ready-made pickles; that is, for pickles in vinegar. And even if there were, the average grower, lacking the skill and experience necessary for putting up pickles in vinegar or in any fancy style, would do far better to sell his pickles in the brine."

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the Farm and Fireside answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to Dr. H. J. Detmers, 1315 Neil Avenue, Columbus, Ohio.

Note.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Defective Hoofs.—J. E. M., Rice, Ohio. If you will tell me where and in what way the hoofs of your mare are poor or defective I may be able to advise you what to do, but the gift to penetrate hidden and concealed things has not been allotted to me.

Probably Frozen.—M. G. G., Southside, Wash. According to your rather meager description it appears to me to be probable that your cow, last winter, had been exposed to a very severe frost and had her extremities—teats and head included—severely frozen. I hardly think that very much can be done now. You may apply to all the cracks and sores twice a day a mixture of equal parts of lime-water and oil, and see what the effect will be.

Fistula.—G. E., The Corner, N. Y. You ask for a cure of a fistula without deeming it necessary to give any description of your case. To comply with your request would compel me to write a long treatise and to take all possibilities into consideration, and then you would probably know just as much as you do now. Since you live in a state in which there is no lack of competent veterinarians, and since almost every one not a veterinarian as a rule meets with dire failure of attempting to bring a fistula to permanent healing, I most decidedly advise you to have your animal treated by a veterinarian, and save yourself a lot of trouble and disappointment.

Warts on Cow's Teats.—E. G. W., Windom, Wash. While your cow is in milk it will be best to leave the warts alone, but as soon as she is dry again you may tie around all those warts that have a plainly developed neck a strong silk thread as tight and as close to the teat as you can. Those that should happen to be without a neck, or be sessile, you may paint over, say once every half minute, with a concentrated solution of corrosive sublimate in strong alcohol by means of a camel's-hair pencil until every one is coated with a whitish layer of corrosive sublimate; but you must be careful to have your pencil not too full of the solution, and not to get the latter in contact with anything but the surface of the warts.

Best Veterinary Book.—N. E., Fort Lincoln, N. D. For several reasons I cannot answer your question. 1. A study of books alone cannot and will not enable anybody to qualify himself as a veterinary practitioner. 2. Veterinary medicine and surgery cannot be studied from any one book. 3. Even if they could, a book that would be called the best by one who is familiar with all the fundamental and auxiliary branches very likely would be called the worst by one not familiar with any of these branches, because he would soon lose his way and be apt to draw very erroneous conclusions. The only rational way one can pursue in studying veterinary medicine and surgery is to take a full course in a good veterinary college in which theoretical and practical instruction, lectures, a study of books and clinical observation and practice go hand in hand and supplement each other. If, notwithstanding, you desire to invest money in veterinary books you will get the best satisfaction, to yourself at least, if you write to a bookseller for a catalogue, and then pick out what you think you would like.

Bruised Withers.—J. P. D., Walker, Mo. What you describe is not a fistula, but simply an accumulation of exudates, or of blood and exudates, in the subcutaneous tissues, produced most likely by often-repeated undue pressure or bruising caused by an ill-fitting collar. It can, though, be easily converted into an abscess and a subsequent fistula if by lesion or wounding an entrance is offered to pus-producing bacteria. In the beginning the exudates and the extravasated blood and the swelling thereby produced could have been easily removed in a day or two by continuous applications of cold water; provided, of course, the cause had been removed, the use of the ill-fitting collar had been discontinued, and the horse had been exempted from work for a sufficient length of time. But as neither was done, as every time the horse had to work a new crop of exudates was produced, as therefore some of them had time to unite with the tissues and to become more or less solid, and as thus the whole process assumed a chronic character, the exudates are now not so easily and rapidly absorbed, and it will require some length of time to reduce and to remove the swelling. It may even be that a complete removal of the swelling is already out of the question. To effect a permanent removal or reduction of the swelling it will be absolutely necessary to exempt the horse from all and any work for some length of time, and then, after the swelling has been removed, never to use that ill-fitting collar again, but to substitute, when the horse is again able to work, for at least a couple of months, a good breast-collar, and afterward a neck-collar that does not cause any undue pressure upon the injured parts. If judiciously applied the absorption of the now partly organized exudates can be hastened by rubbing in, say once a week, a small quantity of oil of cantharides (prepared by heating one part of cantharides and four parts of olive-oil for one hour in a water-bath) on the sides, but not on top, of the swelling. When this is done care must be taken that the horse has no chance to rub, and thus to wound the swelling, because through every sore or lesion pus-producing bacteria may find an entrance, and then an abscess or probably a fistula will be the result. For the same reason too much medication of any kind must be avoided. A strict removal of the cause constitutes the principal part of the treatment.

Probably Fleas and So-called Ear-worm.—C. C. A., Catskill, N. Y. If you make a close examination of your dog you may find that the itching, scratching and falling out of the hair are caused by the presence of a large number of fleas, because if something else the trouble would hardly cease in the winter. One of the best remedies against fleas is a good dose of genuine Persian insect-powder (the powdered flowers of Pyrethrum carneum and roseum). It is best applied by dusting it in between the hair with a so-called blower; but it is advisable to make the application outdoors, because a great many fleas, finding the insect-powder very objectionable, will jump off, and if the application is made indoors nearly every one will find its way back to the dog again. For the same reason the dog should be kept outdoors, not too near the house, for a few hours after the application has been made. In a few days the application should be repeated. It is also advisable to treat the sleeping-place of the dog to a good dose of the insect-powder. Another remedy consists in giving the dog daily, for several days in succession, a bath in a two-per-cent solution of creolin (Pearson's) in water. Concerning the so-called ear-worm (otitis), first a muslin cap with a pocket for each ear should be made, with strings attached so that it can be tied on. That in readiness, the interior of the external ear should be carefully washed out with soap and warm water by means of a small sponge fastened to a stick of convenient length, and when the ear has thus been cleaned all the fluid yet remaining in the small pockets should be wiped out with the sponge. If ulcerating spots or ridges should be found, they may be touched with a stick of lunar caustic. This done, the simplest way will be to dust some boracic acid into the interior of the external ear, or to wash it out by means of the sponge with an alcoholic solution of boracic acid. After this the ears should be put into the pockets of the cap, raised so that they cross each other on top of the head, and then be tied there in such a way by means of the strings that they will be kept in that position, so that the dog cannot flap the same. For about a week the same treatment will have to be repeated once a day, and then for some time, a few weeks, perhaps, once every few days until a perfect healing has been effected and the dog does not show any inclination to flap the ears.

Hemoglobinuria.—L. D. B., Langley, Wash. There can be no doubt about the disease of your cow being toxemic hemoglobinuria, and also that the cure will be a permanent one as long as the causes which produced the disease are not acting again. Consequently, the question to be answered is, "What are, or were, the causes?" Toxemic hemoglobinuria may be produced by various chemical poisons, and also by quite a number of microscopic organisms causing infectious diseases, and then may be looked upon as a concomitant of the latter. Among the former I will mention distilled water, if exclusively used for drinking, glycerin, salts formed with certain acids contained in the gall or bile, arseniureted hydrogen, sulphuric acid, hydrochloric acid, iodine, nitrobenzol, nitrous acid, sodium nitrite, pyrogallic acid, paraldehyde, potassium chloride, copper, mushrooms, etc. Among the infectious diseases so-called Texas fever is probably the most important as far as cattle are concerned, but all infectious diseases producing hemoglobinemia are apt to be attended with hemoglobinuria. Bloody urine, or hematuria, differs essentially from hemoglobinuria, because in the former the urine contains real blood, consequently a large number of blood corpuscles, the presence of which can be easily ascertained by a microscopic examination; while in the latter the red color of the urine is due to an admixture of the dissolved coloring matter of the blood, hemoglobin (more frequently methemoglobin than hemoglobin or oxyhemoglobin). Consequently, in this latter disease a microscopic examination will either show that the urine does not contain any blood corpuscles whatever, or at least but very few. Hematuria is not a distinct disease, and occurs only if blood-vessels anywhere in the urinary organs have been lesioned, severed or ruptured, thereby causing some blood to escape and to become mixed with the urine. If the admixture of blood to the urine is uniform it is tolerably safe to conclude that the seat of the hemorrhage is either in the kidneys or in the ureters; and if the admixture is not uniform, but in streaks or in clots, it may be considered as evidence that the source is either in the bladder or in the urethra. Hematuria, therefore, may be produced by anything able to cause congestion, a lesion of blood-vessels or bleeding in any of the urinary organs; so, for instance, in the kidneys by anything causing severe irritation and congestion (an excessive use of diuretics, or of sharp and resinous substances, etc.), lesions and inflammation; in the bladder by anything causing inflammation or lesions (bladder-stones and concrements), tumors (cancers and polyps) and ulcerous degeneration (tuberculosis in cattle and glanders in horses), and, in short, anything causing an opening, corrosion or destruction of blood-vessels; in the urethra by inflammation, ulceration and the presence of tumors or stones; in the prostate gland by inflammation and the presence of concrements. Hematuria may also occur as a concomitant of such infectious diseases as will produce a weakening and rupture of the walls of the capillaries and thus produce a hemorrhagic diathesis; for instance, of anthrax, pyemia, septicemia, infectious pleuropneumonia of horses, sheep-pox, dog-distemper, petechial fever, etc. There are also a few other possible causes, but as these are of rather rare occurrence it will not be necessary to mention them. In the above I have enumerated the principal causes to enable you to ascertain by a close investigation what may constitute the cause in your case, for the treatment necessarily consists in removing or avoiding the cause or causes. If you have any doubt whether the disease in question is hemoglobinuria or hematuria, a microscopic examination will at once give a reliable answer, provided the urine is examined before it has undergone decomposition.

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THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

The faults of others need not concern us where we find we cannot remedy them. Theirs may irritate us and make life undesirable and human nature despicable for a time. But these things are transient. They pass by and are naught. When we look back upon them we wonder that we gathered wormwood and poisonous weeds when so many bright flowers were blooming all about us.

Remember that for our own individual selves alone we cannot answer; that our words and thoughts and deeds are never-ending; that these things alone shape our individual life and condition our capacity for enjoyment. Our own thoughts and words we can guide, and thus contribute, as we will, to the sum total of human happiness or human agony and despair.

* * *

"Charity begins at home" runs an old adage. A great many are content to have it stop just where it began.

* * *

I can but believe that in every human breast there is a spark of good that needs but to be blown upon to produce noble men and women. I am determined to believe in human nature, to believe that this world is not created in vain, and that God still speaks to each individual in whatsoever way he is best fitted to hear. To noble ones it comes in cadences rapturously sweet and clear, or in tumultuous bursts of fierce music. To the coarser ones in lowlier and humbler strains. Though men may perjure themselves, sell their birthright in truth and honor and noble living for a "mess of pottage," yet sometimes to them will come the awful fact that they have been cheated and thwarted of the best life has to offer. Alas! to them cannot come the joyful tidings, "Well done, good and faithful servant." They must pick up the tangled threads of life that they have so ignobly spun, and weave them into whatsoever shape they can. That the threads cannot be golden and silvern they well know. But the fact that they are willing to take the threads as they have spun them, and weave them into as bright a weave as the threads allow, tells in unmistakable language that the struggle to live nobly is a universal instinct. I am determined to believe the good in human nature despite the fact that men who are coarse and bestial win the plaudits of their own community. Few know the price they pay in thus winning homage, but all know that their recompense at the hands of those they have duped is sure and certain.

That your intent is honest, that your whole desire is to live a noble life and benefit those about you should inspire you with the belief that others also share your desires. Not so ardently, perhaps, but still they share them. This common impulse or instinct, whatsoever you may dub it, builds churches, maintains schools and even our beloved order, and the success and development of these outward semblances of inward truth and right-thinking indicate the moral and intellectual status of a community.

* * *

"A nephew of Hon. Hannibal Hamlin is remodeling the jail building (Paris Hill, Maine) for a public library for the village, in memory of a young son who died a few years since."—Good-Will Record.

This is a happy thought; to change a jail to a library! Were there more public libraries there would be need of fewer jails and reformatories. I know of no better aerator of the human mind than bright, healthful literature. It is not necessary to wait till you can get an old jail to remodel before you establish a library. Build your library now, and you will find less and less need of jails and reformatories.

* * *

Have you ever noticed the influence reading has on the mind and actions of a child? If not, begin now to observe. See that little tot who has listened to an elder brother read, "I come not here to talk. You know too well the story of our thralldom." How his eyes flash, his breast heaves, his sturdy shoulders straighten, as he assumes the defiant attitude of the speaker. You have seen a ten-year-old strut before an imaginary audience, pleading and arguing with it in the memorable words of Webster's supposed speech of John Quincy Adams. Has he read of Irving and Jefferson and others of the world's great actors? Then will he get together a crowd of youngsters, and on a mimic stage enact the characters as presented to them. We smile proudly and indulgently at this, as we well may.

If this reading has such a moving effect on the child's mind, what must be the stain of that great mass of cheap and trashy stuff that goes under the name of literature? Does it not influence and direct imagination and actions of the child as surely as do those masterpieces which move old and young alike? Notice that boy whose mind has feasted on the yellow-back-novel style of reading. See him skulk and dodge. Notice, even in childhood, the insolent stare, the repulsive leer. There is a bright girl whose sweet nature is becoming sour and sullen. Hidden away in some secret place I warrant you will find some of the trash that circulates so freely through the mails—papers that appear inoffensive enough, perhaps, but whose stories picture the heroine as a victim to the injustice of hard and cruel parents, but with a lover gallant and brave. What girl is there that does not imagine herself a heroine! To ourselves we are the principal actors in the drama of life, and our young heroine, for so she is in truth and verity, thinks herself the victim of an outrageous fortune and a cruel parent's ban. The youth who bestows smiles on her is a brave young Lochinvar, who will rescue her from the cruel oppressors. You all know the sequel. It is written in black letters in every hamlet in the country. A ruined girl, adding, perhaps, to her misfortunes the fearful crime of murder, saddened parents who looked forward to a bright and happy life for the beloved daughter. Ah, the blighted lives there are in this sad, old world!

Why not, so far as in us lies, change these things? Why not supply the little ones with pure, healthful reading matter? Not those disgusting and contemptible goody-good books, but books written by men and women whose thoughts were noble, hearts sympathetic and heads level; who wrote of boys and girls as we know them, their hopes and fears and endeavors. What girl does not revel in the works of Louisa May Alcott? How many Fannies have been converted into Pollies by reading that sweet story, "Old-Fashioned Girl?" What boy that does not eagerly devour "Rip Van Winkle," "Tanglewood Tales," "The Stone Image," "Beautiful Jo," the "Story of a Bad Boy," by Aldrich, and dozens of other fascinating stories that are lofty and noble in sentiment. Then the biography by Abbott Parton and others that a child gloats over as a miser gloats over his gold. He reads of Alexander, Charlemagne, of King Alfred and his Round Table of noble knights, of the beautiful Sir Galahad, of Washington, Cromwell, Lincoln, of Agassiz, Burroughs, Scott, Tennyson and thousands of others of times past and present who in various ways in widely sundered times have advanced civilization. He emulates their virtues and shuns their weaknesses. For is he not going to be a hero? Is he not going to be a president in that far-off dreamy future, and have men look up to him and write books about him? We talk a good deal about the "natural bent" of the child. I am inclining more and more to the belief that that which we ascribe to the "natural bent" is but a manifestation of impressive circumstances that surrounded the little one in early childhood. True it is that there are those whose genius is so great as to lift them above their surroundings. But that child is the millionth one. The nine hundred and ninety-nine thousand nine hundred and ninety-nine that are carrying forward the mighty works of the present are largely the creatures of early circumstances. It is with this vast majority that we are concerned. It is for them that we plead that they have a fair chance in the battle of life. In one breath we boast that the eminent men and women were farmer boys and girls, and in the next we decry the degeneracy of these same leaders. There is no weakness of which we do not believe them guilty. If we want to reform the city, let us begin at the country home and school to do it. Let us see that our children have good schools, with teachers who are cultured and who will incite in our little ones love of the pure and good.

* * *

The Ohio State Fair is offering unusual attractions this year. We hope that our readers will attend and help to make it a grand success in point of numbers. Many new improvements have been made, and the grounds present a lovely appearance.

There is a grange hall on the grounds for the convenience of visiting patrons. If you are not a patron, we invite you to come and see us and find a royal welcome. It is a splendid place to rest, to greet old friends and make new ones. Two days of the week a grange reunion is held. Usually there are short addresses by good speakers. Most of the time, however, is given to handshakings and greetings.

* * *

To show that agriculture held an honorable place among the early Greeks we quote from Plutarch's "Life of Numa:" "For no occupation implants so speedy and so effectual a love of peace as a country life, where there remains indeed courage and bravery sufficient to defend their property, but the temptations to injustice and avarice are removed. Numa, therefore, introduced among his subjects an attachment to husbandry as a charm of peace; and contriving a business for them which would rather form their manners to simplicity than raise them to opulence, he divided the country into several portions, which he called pagi, or boroughs, and appointed over each of them a governor, or overseer. Sometimes he also inspected them himself; and judging of the disposition of their farms some he advanced to posts of honor and trust; and, on the other hand, he reprimanded and endeavored to reform the negligent and the idle."

* * *

A great many people, when urged to read and study, reply, "Oh, I haven't time!" Haven't time! Haven't time to train and develop the spiritual side of your nature, the only part that never dies? Haven't time to read and think? Do you not think as you do your farm or house work? Is it not as easy, and far more profitable, to have your mind engaged with some theme worthy the thought of a sensible man and woman than to keep it continually on the grind of every-day life and your neighbors' affairs? The mind is never at rest. It remains with you to determine the quality of work the brain does. I am inclined to believe that it is not so much a matter of lack of time as lack of judgment in employing time. There are many, many wasted moments in the busiest life. Moments that properly employed would make cultured men and women. It is the slow but sure effort that tells. The person who has a book handy, so that he may pick it up when he has to wait five minutes, will store his mind with food for several hours of thought. He can digest it, as it were, make it a part of his inner consciousness. "But who wants to pick up a book just for five minutes?" you say. Oh, well, if you would rather idle away those moments, well and good; but don't say you haven't time to read. Rather acknowledge that you have time, but do not care to employ it.

Some of the best-read people we meet are those who have acquired their information in these odd minutes that others fritter away. It is a college of spare minutes, and well have they employed their time. You may do likewise, and at the end of a year you will be astonished at the amount of reading you have done and the information you have acquired.

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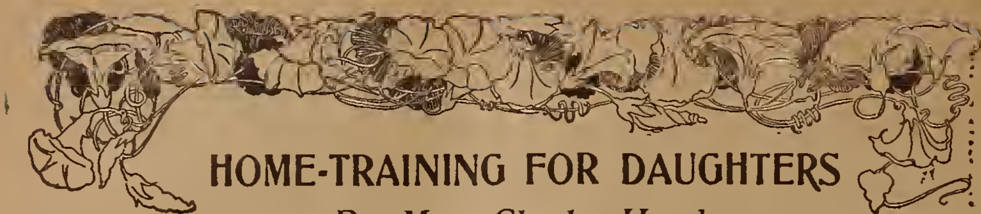


HOME-TRAINING FOR DAUGHTERS

By Mrs. Clarke Hardy

YOUNG woman's education can in no sense be said to be completed until her school studies have been supplemented by a thorough training along all lines of housekeeping and home-making. Her educational advantages may have been of the best; she may have wealth and position, culture and accomplishments, and yet without a practical knowledge of household industries it is very probable that in time she will find herself handicapped, in a position where independence and capability are the only assurances of success.

It is a wise mother who elects to provide for the future well-being of her daughter by sending her forth from her own roof-tree well and thoroughly equipped with both knowledge and experience in all branches of housewifely lore. There is nothing more pitiable than the lot of a girl who goes forth to encounter her own domestic experiences defrauded of her rightful preparatory training, and no mother has fully discharged her parental obligations who has shirked the responsibility of her own share in the training of her daughter to proficiency in housewifely accomplishments.

The daughter should be taught, by both precept and example, to regard housekeeping as a profession, and a profession of dignity and importance, inasmuch as the welfare of all humanity depends upon the home and the home-maker. This will serve to lift the every-day duties of housekeeping from the old rut of simple drudgery to the place of artistic and scientific accomplishment.

Sometimes the daughter will fail to see the necessity for all this domestic training, especially if she has reason to believe that she will never be obliged to do her own housework. But as wealth is no guarantee against domestic disaster, it should not be made an excuse for housewifely ignorance. And, too, in her own future experience she will very likely find that servants are quite often neither capable nor intelligent, and that the only safeguard to domestic felicity is in the competent mistress, who is equal to the emergency of wisely ordering her own domestic affairs, and training to some degree of usefulness that embodiment of stupidity and incompetency that often finds its way into our kitchens.

When her interest is once aroused the daughter will soon begin to feel a certain sort of pride in her housewifely attainments, and a sense of the responsibilites of the home-maker. She will see, too, that no one specialty will suffice; that the making of a cake, the compounding of a salad or the preparing of a dainty dessert is not by any means an adequate preparation upon which to warrant the successful management of a home, or the comfort and happiness of its inmates. The making of a wholesome loaf of bread, the broiling of a steak, the roasting of a joint and the cooking of vegetables; the canning, the pickling and the preserving; the care of all kinds of meats and household supplies, must supplement the lighter and more ornamental accomplishments.

The daughter should also be trained to habits of thrift and self-dependence, for in no other way can she attain to self-confidence and independence in her own domestic experiences. She must learn to have an eye to the business end of her occupation, and understand the value of all household commodities. And to this end a certain sum of money may be set aside for household purposes, and the daughter, with perhaps a good deal of kindly tuition from the mother, should be allowed to purchase the household supplies. This will not only give her a practical experience in domestic economy, but will teach her the value of money and the necessity of wisdom and discretion in its use.

The care of her own, and perhaps of her brother's, wardrobe, the mending, the planning and the remodeling of half-worn garments, the care and oversight of the table-linen and the bedding, a supervision of the sewing-room and the laundry, will all be helpful to the prospective housewife.

The artistic arrangement of a room may be considered an accomplishment, but the care of the sick and of children, and a knowledge of simple household remedies in cases of emergency, are often a necessity.

In fact, to sum up the whole matter, the daughter will soon learn from practical experience that it takes an all-round woman, capable of turning her hand to any and every kind of household labor, to keep in perfect running order the complicated machinery of a modern household. And she will realize the importance of her home-training accordingly.

And, too, this season of apprenticeship may be made a mutual pleasure and benefit to both mother and daughter, for if the mother has fallen behind the times in her methods, and has grown a little old-fashioned in her ways, she will soon become enthused with the spirit of progress of her up-to-date daughter, and many new and helpful innovations will be the result. The close companionship and the mutual interests of this season of household discipline will develop a happy relationship and a good-fellowship that will be a source of much pleasure to both, and in future years the daughter will hold in grateful appreciation the mother who elected to provide so wisely and well for her daughter's happiness and well-being.

WITH TWO QUARTS OF MOLASSES

There are very few people indeed who do not enjoy cakes of any description made with molasses. And while one is busy in making one kind a variety might as well be put away for future use. The following kinds will keep, and are delightful additions to the table. As there are two cupfuls of molasses to a pint, it will be seen that eight cupfuls are ready for our attention.

First let us make a brown layer-cake. Sift two cupfuls of flour into a pan, and stir well into it one cupful of molasses. Add one tablespoonful of lard, one cupful of hot water, one egg, one tablespoonful each of soda, cloves, cinnamon and ginger and a pinch of salt. Bake in three layers, and put together with icing. This will seem rather thin, but will bake just right. It may be baked as a loaf-cake, and raisins added if desired.

DELICIOUS CAKE.—This cake requires two eggs, one cupful of sugar, one cupful of molasses, one cupful of hot water, two tablespoonfuls of lard, one teaspoonful each of salt, soda, ginger and nutmeg; flour to stir a little stiff. Bake in a long, deep tin, and ice top.

PORK-CAKE.—Have one pound of fat salt pork chopped fine, and bring to a boil in one cupful of water. Add one cupful of molasses, one cupful of sugar, three eggs, one teaspoonful of soda, and spices to suit the taste; flour to make stiff batter. Bake slowly in a deep tin.

FRUIT-CAKE.—One cupful of molasses, one cupful of sugar, one cupful of coffee, one half cupful of butter, a pinch of soda, one teaspoonful of baking-powder, one egg, and spices of all kinds, raisins and chopped fruit to suit, about three cupfuls of flour and one pound of seeded raisins. Bake slowly in a moderate oven.

SUET PUDDING.—One cupful of finely chopped suet, one cupful of molasses, one half cupful of sugar, two cupfuls of milk, three cupfuls of flour (no more), one cupful of raisins and one cupful of English currants, spices of all kinds and one teaspoonful of soda. Steam four hours. This pudding will keep all winter, and may be heated whenever needed for use. Serve with a hot, tart sauce.

LITTLE DROP-CAKES.—One cupful of molasses, one half cupful of sugar, one third of a cupful of melted butter or lard, one egg, cinnamon, ginger, cloves and nutmeg to season; one teaspoonful of soda and three and one half cupfuls of flour. Stir until well mixed, and then with a teaspoon take up tiny portions of the dough, and place about an inch apart on a floured tin. Bake in a moderate oven. They will become round and resemble the cakes sold in stores. A raisin may be placed in the center of each, or sprinkle English currants on them.

GINGERSNAPS.—One cupful of molasses boiled with one cupful of sugar; add two thirds of a cupful of butter, one half cupful of hot water, one teaspoonful of soda, two teaspoonfuls of ginger, and flour to roll soft.

CHEAP TEA-CAKES.—One cupful of molasses, two tablespoonfuls of vinegar, two tablespoonfuls of lard, one small spoonful of soda, one tablespoonful of ginger and one tablespoonful of cinnamon; flour to roll out; cut into square cakes, sprinkle the top with sugar, and bake brown.

VIOLA VAN ORDER.

FOR A PICNIC LUNCH

DEVILED CHICKEN.—Clean a good-sized chicken, and cut it up as for frying. Boil until tender, remove all of the skin and bones, and set the meat away until perfectly cold. Then chop it fine, and to each pint of chopped meat allow one half pint of sweet cream, one tablespoonful of butter, three hard-boiled eggs, three tablespoonfuls of bread-crumbs, one fourth of a grated nutmeg, and salt and pepper to taste. Melt the butter, and add the bread-crumbs, chicken, cream and seasoning, stirring it until it boils; remove from the fire and add the chopped-up egg. Pour all into a baking-dish, sprinkle lightly with cracker-crumbs, and brown in a quick oven.

VEAL-LOAF.—Three pounds of raw chopped veal, three eggs, lump of butter the size of a walnut, three tablespoonfuls of rich sweet cream, one tablespoonful of sifted sage, one tablespoonful of salt, a dash of paprika, and four soda-crackers rolled fine. Form into a long loaf, and bake about three hours, basting with hot water and butter while baking.

JELLIED VEAL.—Cut a knuckle of veal into small squares, put into a kettle with water sufficient to cover it, and bring it slowly to simmering; skim, and simmer gently for two hours, then add two onions, one blade of mace, one bay-leaf, ten cloves, six peppercorns, one half teaspoonful of ground allspice and salt and pepper to taste. Let all this cook slowly together for one hour, then take out the meat, remove the bone, and place the meat in a square mold if you have one; if not, pour into a baking-pan. Boil the liquor until it is reduced one half, strain, add a cupful of good vinegar, and pour it over the meat. When you want to remove it from the mold wrap around it a napkin wet in hot water.

DEVILED EGGS.—Hard-boil eight eggs; when cold remove the shells and cut the eggs in halves, crush the yolks with a tablespoonful of anchovy, the same of French mustard, add a dash of cayenne and a lump of butter the size of an egg; then refill the eggs with this mixture. Press the halves together and cut off the points of the eggs, so they will stand on a dish.

VINEGAR FOR SWEET PICKLES.—For sweet pickles, as well as for all pickles, use cider vinegar, which must be at least one year old. Should it be dark it can easily be clarified by pouring in one teacupful of fresh unskimmed milk to every two gallons of vinegar. The dark clouds settle to the bottom, leaving a clear, amber-colored liquid, which must be poured gently from the sediment.

MRS. W. L. TABOR.

GOOD TO KNOW

When binding up cuts and wounds use linen, not cotton, as the fibers of cotton are flat and apt to irritate a sore place, while those of linen are perfectly rounded.

A little sugar added to the water for basting meat improves its flavor.

Never wash an omelet-pan; wipe it clean with pieces of paper, then rub with a clean, dry cloth. If the pan is treated in this way the omelets will be less apt to stick or burn.

Apple sauce is much improved by the addition of a tablespoonful of butter, and requires less sugar.

For a burn or scald make a paste of common baking-soda and water; apply at once, and cover with a linen cloth. When the skin is broken, apply the white of an egg with a feather; this gives instant relief and keeps the air from the flesh.

Plaster-of-Paris ornaments can be cleaned by covering them with a thick layer of starch. After applying let it dry thoroughly, then brush, and the dust will come off with the starch.

Mix stove-blacking with soapy water. This will prevent the dust from flying, and will also produce a finer polish.

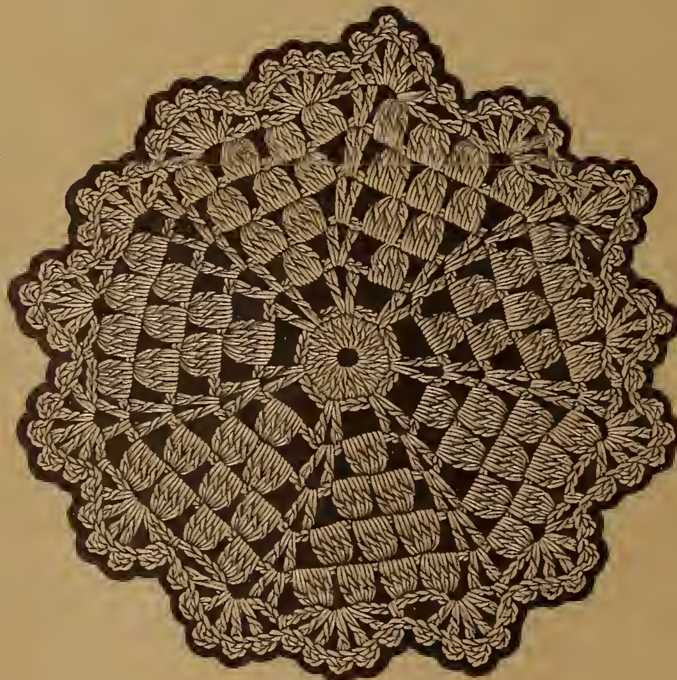
Never let vegetables stand in the water in which they were boiled. Drain the moment they are done, and dress.

In order to free a room from unpleasant odors boil mixed spices in vinegar twenty minutes or longer. If enough are used they will destroy all unpleasant scents, even such as fried fish, onions, etc., and the room will have a delightful and invigorating fragrance.

MRS. J. R. MACKINTOSH.

CROCHETED PINCUSHION-COVER

Here is a pretty as well as an easy pattern which I think all will like. It may be made large enough for an organ-stool cover, or used for other purposes.



Chain 6 stitches. Join ch 3 for a tr, make 19 tr in ring; join to top of 3 ch. Chain 5, a tr in same place (repeat), ch 3, miss 3, 2 tr separated by 2 ch in next, repeat three times, ch 3, and join to third of 5 ch at beginning. Now slip stitches under 2 ch, ch 5, a tr under 2 ch, ch 3, block of 7 tr under 3 ch, catch back in first tr and draw together tight, ch 3, 2 tr separated by 2 ch under next 2 ch, and so continue around, joining to third of 5 ch, and beginning next round as previous one. In this round there are two blocks, one on each side of first separated by 3 ch, in next round three blocks, etc. Make as large as desired, increasing a block each time and keeping the 2 tr for an open space between. Finish with any little edge; if preferred, the wheels may be made small, having four or five blocks in the triangle and joined together.

NAOMI M.

RECEIPT FOR CURRANT WINE

The currants should be quite ripe and dry when picked. Stem, mash and strain them, adding half a pint of water and rather less than one pound of sugar to every quart of fruit. Stir them well together, and pour into a clean cask, leaving the bung-hole open or covered with a piece of very thin material. It should stand for a month to ferment, when it will be ready for bottling.

THE FOUR BIG BROOMS

"Oh, mother, why does the big wind blow
And rattle the window-pane?
If I close my eyes to sleep just so,
It wakes me up again;
If I hide my head beneath the spread,
You speak so soft and low
That I cannot hear what you have said.
Oh, why does the big wind blow?"

"Let us play, my darling, a merry play,
The winds are four big brooms
That sweep the world on a windy day
As Mary sweeps our rooms.
The south wind is the parlor brush
That sweeps in a quiet way,
But the north wind comes with roar and rush
On the world-wide sweeping-day.

"Like Mary sweeping the halls and stairs
Is the work of the good west broom,
And the sweetest odors, the softest airs,
Float over the world's wide room.
But to-night the broom from the east is here,
And with it comes the rain,
Like John, when he brushes the porch, my dear,
And hoses the window-pane."

The little boy laughed and huddled close
In his warm and downy bed.
"I hear the broom, and I hear the hose,
And I like them both," he said.
And so, though the rain may pelt away,
And the big wind loudly roar,
He remembers the wide world's sweeping-day
And thinks of the big brooms four.

—Mary B. Street, in Youth's Companion.

POISONOUS PLANTS

A sad case of poisoning has just occurred in this vicinity, which has forcibly brought to my mind the importance of teaching the children to never eat or even touch fruit, flower or plant with which they are not perfectly familiar. In the case above mentioned the family had just moved to the country from the city. The children were delighted with the change, and spent most of their time in the woods and fields, running about and gathering wild flowers. After a few days one of the little girls was taken suddenly ill, suffered excruciating pains, and when a physician was called he pronounced it a case of poisoning. In a few hours the child died. A day or two afterward a younger child was taken sick with the same symptoms. A physician was called at once, and by prompt measures the life of this little one is now thought to be out of danger. It is not known what plant these children ate that caused the poisoning, but botanists tell us that noxious plants are many, and some of them can be distinguished from harmless varieties only by botanists. A safe rule that medical men lay down is to eat nothing and handle nothing when in the fields or woods unless sure that it is harmless in its character.

The Kentucky coffee-tree greatly resembles the honey-locust, both bearing a pod which is very similar. The pod of the honey-locust is sweet, and is often eaten by children, while the leaves, blossoms and pods of the coffee-tree, which blooms about the same time as the locust, are poisonous. The blossoms of the coffee-tree are yellow and lack the fragrance of locust-blossoms.

The parsley family of plants has some members which are harmless, but others are very poisonous, containing acrid-narcotic properties, especially in the root, and cases of poisoning occur every year from this plant. The flowers are much alike in all, borne in umbels, and in many cases the poisonous varieties are hard to distinguish. It is safest to make no experiments, but let the whole family alone, except the members planted and grown in the garden.

False hellebore is another plant that has been responsible for a number of cases of poisoning. It grows in low places, and is mistaken for marsh-marigold, which is often used for "greens" in the spring, under the name cowslip.

Besides the great number of poisonous plants there are many poisonous fungi, which every year cause deaths by being mistaken for edible mushrooms. This question was considered so important that a few years ago the botanist of the United States Department of Agriculture issued an illustrated pamphlet treating on mushrooms. In this pamphlet the advice to mushroom gatherers is to learn thoroughly to know one or two well-defined species of edible fungi, and confine themselves to these, leaving all experiments to scientists.

Of the plants which poison by contact the most common are the poison-ivy, or poison-oak, as it is sometimes called, and the poison-sumach. Both belong to the Cashew family. The poison-ivy is a climbing or trailing plant, having variable, three-foliate leaves, aerial rootlets, and greenish-white flowers which appear in June. The fruit, a smooth, waxy berry, often remains on the plant until winter. The poison-ivy can be easily distinguished from the Virginia creeper, as the latter has five leaflets instead of three. Poison-sumach is a shrub instead of a vine, and has long, pinnate leaves with from seven to thirteen leaflets. It grows in low, swampy places, and is the most poisonous species.

It is a good plan to wash the face and hands with strong soap-suds or ammonia-water whenever one has been in the fields or woods. The best remedy for poisoning by touch is a mixture of soap liniment and oil of sassafras, which any druggist will prepare. If this is used before the irruption appears it will prevent it, and afterward will kill the poison. It is well to take a few doses of Rochelle salts if the irruption has appeared.

Maida McL.

HONEY AND ITS ADULTERATION

Honey sold in the comb is usually free from adulteration, as the manufacture of artificial comb from paraffin is too difficult to leave a margin for profit. But the case is quite different with extracted honey, and no article of food is more generally adulterated. The adulterations with glucose, cane-sugar and water are generally harmless, but fraudulent, and the affixed labels of "pure" honey are in the majority of samples misleading. The detection of adulteration is easy, as pure honey, with rare exceptions, polarizes light, turning the plane to the left, in variation from two and one half degrees to seventeen degrees, while glucose turns the plane of polarization to the right. An interesting exception to this rule or law occurred in connection with some honey, claimed to be absolutely pure, which was the product of bees that had supposedly fed upon the exudation from pine, pine-leaves and wild black-cherry trees.

Mary Wager Fisher.

A SUMMER IDYLL

Last summer I received a letter from a friend living only a few miles from the city, asking me to come and pay her a two-days' visit, appointing the second of August as the evening upon which I should come. Near the close of the letter she wrote, "On the afternoon of the third of August I am to entertain the missionary society of our church, and I want you to say something; anything you choose will be acceptable." She further wrote that they had one organization for old and young—home and foreign mission work—as it was all they thought best to have.

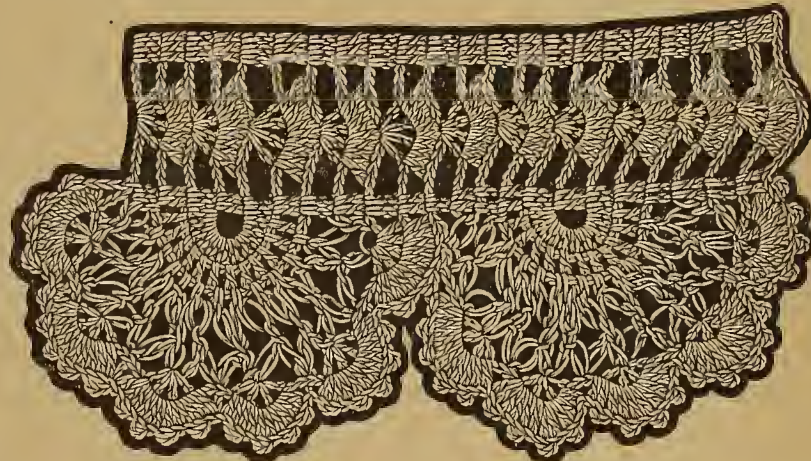
The thought of a few hours in the great farm-house of my friend or under the trees and by the beautiful little brook was pleasant, the country wooed me so, that for the time I felt little responsibility about the missionary meeting. As it neared the second of August I began to wonder what message would be the best to carry. Once I thought of borrowing some of the good papers we had had in our own societies, such as "The Will You?" paper, or "The Burial of Christ," or "Missions in Easter," or the "Orchestra Paper," but I did not.

The third of August brought an early dinner at the farm-house. The morning had been spent in getting ready for the afternoon company, for tea was always served by the hostess at those meetings. Nothing was too much trouble. The house and tables were decorated with beautiful garden flowers, like the annuals that grew in our old home gardens, pretty china and glass and silver were brought out, and damask that would ornament any city table. The missionary society seemed to hold a place of honor with every one connected with that home. Just when it was time for the people to start from their various farms a terrific thunder-storm broke over the settlement, and the rain did not cease until nearly dark. I began to feel sorry for the hostess, supposing no one could come, as there was only one woman living near enough to walk to the meeting. Just before two o'clock that woman came. Her name was Mrs. Buckbee, but they called her "Peggy" Buckbee. Her hair was combed very smoothly, her cotton dress was clean, and her full blue-checked gingham apron was so faultlessly ironed that it was really handsome. The others began to drive up, until there were forty there.

The women took off their bonnets, for they were going to sew on home-mission work until four, and then they were to stay to tea besides. It was very dark for sewing, but one good woman said, "We would not sit idle at home all the afternoon," so moved her chair to the porch; and others found light in one way or another. While they sewed one could hear in the aside talks of the large bakings and ironings that had been done before coming, and I was constantly impressed with the idea that they thought it was worth while to come to a missionary meeting.

At four there was prayer and praise, Bible-reading and reports. I told them of a question once asked me, "Do I owe anybody anything?" I suggested that whoever needed anything we could do or give was our neighbor; that beginning with those nearest, we should give cheer, helpful words, time, money as the need might be and as we could, and so reaching to the regions beyond we should never lose sight of the question, nor could we escape the responsibility of making suitable answer.

I told them of a good man and his wife who came to our village from a farm, and who felt so lonely that one day the man came to my mother, who was the village doctor's wife, and asked, "What way do neighborhood lines run in villages? No one seems to care for us." So there come the social duties to each other as residents in the same community. There never need be lack of opportunity either to go or to send the message.



After the informal talk a very abundant supper was daintily served. Later, when the guests had gone and the work was done, I sat on the porch with my hostess. I told her how much I had enjoyed the Christian spirit and real fellowship manifested, but I said I thought the suppers (if yours is a sample) must be very expensive. She interrupted me with, "Why not give it to the poor?" I begged her to forgive the Judas thought, for I realized just then how that supper had been given in honor and service, and I believed, like the spikenard-box, its aroma would not be lost.

My hostess told me many things of the women, of the Providence that brought their gifted president to them; but I was especially moved by the story of "Peggy" Buckbee. What a recent writer has said of another so well tells her story that I copy: "Here also are parents who have loved books and hungered for beauty, yet in youth were denied education, and who went all their lives through concealing a secret hunger and ambition, but who determined that their children should never want for an education, and so they offer a vicarious sacrifice of love."

My hostess told me that Mr. and Mrs. Buckbee had never owned any land, but had always lived in a tenant-house and worked for a farmer, and worked faithfully. They had never had any money with which to help educate their daughter beyond the district school, though she was unusually bright, but they had given her her time and helped plan ways that she could help herself, and as a result the daughter lacked only a year of being through college.

My hostess also said the neighbors criticise the daughter severely because she does not give up study and help her mother. I think, though, that when she is through her salary will help them much more, for neither of them can work hard many years longer.

"Did you not see a joy in Peggy's face when she told of her daughter's successes at school, and of her attainments?" I asked. Plainly she had a joy with whom a stranger doth not intermeddle. Her hungry heart was being satisfied in seeing her daughter obtain some of the things she valued.

Was that missionary meeting a simple thing? Well, "happiness lies in simple things—a cup of cold water, health, and a perfect day."

Mary Joslyn Smith.

TESTED RECEIPTS

Baked Cabbage.—Cut the outside leaves from a firm, small cabbage, put on in cold water, and boil fifteen minutes; drain off this water and pour over boiling water; let it soak until tender, then drain it, set aside until cool, then chop it fine, add two well-beaten eggs, three tablespoonfuls of milk, one tablespoonful of butter, with salt and pepper. Stir all together, put in a baking-dish; bake until brown. Serve hot.

Egg-plant with Dressing.—Cut the egg-plant in two, take out all the inside and put it in a pan with a cupful of chopped chicken, veal or any meat you wish, cover with water, and boil until tender; drain, add one tablespoonful of butter, a small onion chopped fine, salt and pepper and two tablespoonfuls of bread-crumbs; mix well, fill each half of the hull, put a little butter in each, and bake twenty minutes. In preparing egg-plant keep in water until ready to cook, as the air will turn it black.

Artichokes Sautes.—Wash in plenty of cold salt-water. Let them stand in the water some time if they are not fresh. Boil them in enough salted water to cover them until the leaves are tender, then drain them, trim off the tops of the leaves, partly cut the artichokes through the center, and remove the choke with a teaspoon. Work quickly, lest they become cold. Lay them in a pan, season with salt, pepper and good butter, cover the pan with a lid, and set to cook in a moderate oven for twenty-five minutes. Take it out, place the artichokes in a deep dish, and serve with any desired sauce.

Ella Bartlett Simmons.

CROCHETED FAN-LACE

First row—Ch 20 st, 2 tr, ch 2, skip 3 st, 1 tr, ch 1 tr, ch 1; repeat until there are 4 tr with 1 ch between each tr, ch 2, 2 tr, ch 3. Turn.

Second row—Ch 2 tr, ch tr under each ch 1 of previous row, ch 1, 2 tr. Turn, ch 3.

Third row—2 tr, ch 3, 4 tr with 1 ch between each tr in center of tr in previous row, ch 2, 2 tr, ch 3. Turn.

Fourth row—Like second row; ch 6, fasten on third row. Turn.

Fifth row—12 tr under ch 6; finish like first row.

It is useless to give direction for tops, as any one can very readily see how the little fans are made.

Sixth row—12 tr, 1 ch between each under 12 tr of previous row. Turn, 2 knots, fasten in first ch, 2 knots, fasten in next st; repeat ten times.

Seventh row—Repeat 1 knot, fasten in center of 2 knots of previous row; repeat around scallop.

The edge consists of little fans made as follows: 4 tr (1 ch between each) on first knot. Turn, 2 tr under each ch. Turn, ch 3, 1 s c under each tr, fasten in next knot; repeat five times.

Naomi M.

[Household concluded on page 17]

WHEELERS WELCOME

By Albert Lawrence

CHAPTER VI.

The lamp nearly slipped from her grasp when Mrs. Wheeler became convinced that the money was really gone. She dropped into a chair, covering her face with her hands, and tried to think that she had put the roll of bills somewhere else.

"No," she repeated to herself, "I put the money in the toe of those black stockings, and rolled them together just as I always do, and then placed them in the lower corner of the drawer, 'way to the back side." She rose and came to the bureau, and began to tumble about the contents of the drawer again. "But it is gone! The money is certainly gone! Why, the stockings and all are gone! What will the children say? Oh, what shall I do? Why can't I find it? Who could have taken it?"

She was gone so long that Jessie came to the stairway and called her mother. But Mrs. Wheeler was so distraught that she failed to hear her daughter. Jessie then came hurrying up to the room.

"What is the trouble, mama?"

"Oh, my child, I've lost that money! It is gone! I cannot find it!"

"Lost the money! Mama—no!"

Jessie flew to her in despair.

"Oh, surely we can find it!" the girl continued. "Where did you put it? You have forgotten! Think, mama!"

"I have tried to! No, Jessie, I put it right there! I rolled it up in the stockings and hid them away there!"

"Stockings?" questioned Jessie.

"Yes; those thin black ones of yours. Only this morning I put it in there."

"Oh, mama, they're down-stairs! I carried them there only a few minutes ago, to mend this evening!" And she flew from the room in her haste to find their little store of wealth.

Mrs. Wheeler followed as rapidly as she could. They scarcely breathed for the hope that was given them. Craig had caught the note of despair in the voices above and met them as they came into the room.

"What is it?" he asked, almost sharply, as he tried to seize Jessie's arm.

"Oh, nothing—nothing!" she repeated, eluding him and flying to her work-basket.

But he guessed it all from their manner. The money was gone! The beginnings of that hard, fatalistic laugh came from his throat. If they were having hard luck, more was to follow. It was a mockery to expect anything else. This feeling was one which he despised and fought hard against; still it would master him at times.

"Here it is, mama! The money is all safe! I hadn't unrolled the stockings yet!" cried Jessie, holding them in one hand and the roll of bills in the other.

"Oh, it is safe! I am so glad!" said the mother, and she silently breathed a prayer of thanksgiving.

"Did you think you had lost the money? Oh, that would have been too bad!" declared Mr. Atkinson, in a voice of genuine sympathy.

"Here, Craig," said his mother, "you count the money. Yes," she added, turning to their guest with an explanation of the whole affair.

She and Jessie laughed, and the tears filled their eyes in turn, as they told what a fright they had given themselves. Even Craig had great difficulty in counting the money, for the tremor in his mother's voice made his own eyes fill, so that tens looked like twenties, and the twenties became two hundred, with four X's in the other corners. But at last he had just a hundred and five dollars laid out in a pile. Then he did some figuring on a piece of paper.

"There will be compound interest for six weeks," he said, turning to Mr. Atkinson.

"Never mind that," said the man of business. He had resolved that if the New York bank insisted on this he would pay it himself and say nothing to the Wheelers of the matter.

"That will be ninety-two cents," continued Craig, taking some change from his pocket. "I think we shall be able to meet every obligation. The next interest will be due in October. I hope to make a reduction of the principal at that time."

Mr. Atkinson liked the boy's businesslike expressions, and left him have his way, after examining the figures. Craig's quiet independence was very pleasing to the man, and he mentally promised himself that the lad should be no loser if he could help him in any way. He prolonged his call to discuss Craig's plans with him, and gave him some good advice regarding the projects he had in mind.

The Wheelers regretted very much to part with Prancer, because he had been so long on the place. But as the horse went into good hands, and was to remain so near, parting from him was made easier. Besides, Mr. Atkinson agreed with them that it would have been very unwise under the circumstances to have kept him.

Although the money coming from this sale could not be looked upon exactly in the light of gain, there had been a distinct improvement in their affairs in the last month. Jessie brought out the little book where she kept the debits and credits of "Wheelers Welcome," and forced a balance in the four weeks' transactions. Charging themselves market prices for the eggs and cream and other items, there was still a sum of nearly forty dollars which their labor had earned. As they had every reason to think that the next three months at least would prove equally profitable, there was much ground for congratulation and rejoicing.

By the first of July all the Hillsborough debts had been paid, and there only remained the mortgage, with its interest due semi-annually, to contend against.

This month marked the height of the recreation season. As yet they had been called upon only twice to keep travelers over night. But one warm afternoon, when Jessie was helping some Hillsborough girls to ices, three tourists from the west came rolling into the grounds on their wheels. The great bicycle sign at the gate never failed to attract the attention of passers-by, and when their eyes once lighted on the cool, well-kept yard within it was well nigh impossible to ride by; one must stop if only for a moment's rest and refreshment.

Jessie was quick to guess the relationship that existed between members of the little parties that came to her tables.

"Father and mother and daughter," she decided, as the new-comers pushed their wheels into racks and selected restful places for their tired bodies. Jessie never forced herself upon her guests, but she was always quick to note the first sign if anything was wanted. "They have come from a long distance," she reflected, looking critically at the bundles suspended from the handle-bars.

After a time she approached them hospitably. "You find it rather dusty, I should judge," she said, with a pleasant smile.

"Dusty! And so hilly!" replied the woman. "It is pretty—very pretty, but oh, so hilly! Why, we haven't come half the distance we calculated to, and I am completely tired out!"

"How far is it to the next town—Hillsborough, isn't it?" inquired the man.

"Yes; ten miles," Jessie answered.

"Oh, my, papa, I can never go that far!" declared his wife. "Isn't there some hotel—couldn't you keep us over night?" turning quickly to their young hostess.

"Yes; we do keep people."

"Then we must stay, papa."

"Yes, do let's, papa," added the daughter. "Oh, I think it is so pretty here! You must take some snaps. Back there by the river were such pretty views. You haven't taken more than two pictures to-day."

The man had been fanning himself vigorously.

"I believe I'm cool enough so I dare have some cream. Don't you and Maud want some?" he asked.

"Oh, I must wash before I eat anything," declared his wife, looking at her hands. "Isn't there some place, Miss—"

"Yes," answered Jessie. "Wheeler is my name," she added, leading the way to the house.

"Wheeler! Why, of course; we read it on the sign—'Wheelers Welcome.'"

"But I thought that meant bicycle-riders were welcome?" said the man.

"It does," answered Jessie. "It stands for both."

"Good enough! Good enough!" he cried, in his heavy bass voice, appreciating Craig's work fully. "Now, a good way to introduce ourselves would be to register. Does 'Wheelers Welcome' require its guests to register?" he asked.

"Why, papa, stand still, and I'll write our name in dust on your back," said his daughter.

"In dust—Dustin!"

"Dust on Dustin!" cried Maud, explosively, brushing the sand in a cloud from her father's back.

"That's it! That's it! Our name lends itself to punning, too. Miss Wheeler, make you acquainted with my wife, Mrs. Dustin, and our daughter, Maud. You and I don't require an introduction. We're already acquainted," he said, with a comical twinkle in his eyes.

Jessie thought them very jolly people.

They quickly made themselves at home at "Wheelers Welcome," and in a few hours had come to like the place so well that they decided to spend several days there. Craig was going to Hillsborough that evening, so they gave him checks for some bundles which had been sent ahead by express, and asked him to get them and bring them home with him.

The next morning Maud and her father set out to take some photographs along the creek. Craig had told them there were very pretty views to be obtained, and they took a lunch, intending to go as far as Wishwash lake. Mrs. Dustin remained at the Wheelers', for she was very tired. Late in the afternoon she saw her husband coming up the path, and went to meet him.

"Where is Maud?" she asked.

"Maud? Isn't she here?"

"No."

"What?"

"No," repeated Mrs. Dustin.

"She left me at noon, when we were within sight of the house, and said she was coming here."

"Papa, you're trying to frighten me!" said the mother.

"Isn't Maud here?" he asked, very soberly.

"No," she replied, with an excited tremor in her voice.

"Then she has lost her way," he said, trying to control his alarm, as he looked back toward the darkening forest.

CHAPTER VII.

The fact that Maud was lost somewhere in the woods and night coming on threw the house into no small commotion. Craig came up from the field, and he and Mr. Dustin started at once in search of the lost girl. Jessie went across the farm to Hunter's, to make inquiry there, and start them to looking for her, also, should there be need. Craig and Jessie had a code of signals with the farm-bell, and she agreed to let them know if Maud returned to the house or was found at Hunter's.

"You say she started to return when within sight of the house?" asked Craig, as he and Mr. Dustin entered the woods.

"Yes," replied the father; "we had tramped about for several hours, and Maud was very tired. When we saw the house so near I told her she could go home. I wanted to go along the shore of the lake and get one or two more views."

"How far were you from the lake then?" Craig inquired.

"Why, we were right on the shore of the lake."

"Then it wasn't our house that you saw. The lake is three miles from here, and there are hills and woods between that completely shut out the view."

"Is it possible!" exclaimed Mr. Dustin. "I saw the house myself, and can scarcely believe it. It certainly was very much like yours, both the house and the outbuildings—why, the windmill, too, I remember, was like yours!"

"Yes, there is such a place. Mr. Norton lives there. Our best plan is to cut through these woods to the shore of the lake—it is the shortest way—and then go right to the house. We shall probably find your daughter there."

"Oh, I do hope so! Certainly no harm can come to her! Whatever house she should go to she would be treated kindly!"

"Indeed she would," answered Craig. "There is no person or thing in this region that one need be afraid of."

"I wish her mother could realize that," said the father. "She will suffer agonies till Maud is found. She cannot think of her except as a very little girl. Why, the child is fourteen—most old enough to look out for herself, I should say."

Still the father's voice betrayed his own anxiety. They were going through the woods rapidly, much of the way on the run. Craig led. Now and then they stopped for just an instant, listened, shouted, and listened again. There was never any reply. Then they pushed forward with greater strides. Night was fast overtaking them.

At last the two emerged from the forest and stood upon the shore of the lake. Mr. Dustin pointed out the house which he and Maud had mistaken for the Wheeler home.

"Yes, that is Mr. Norton's," said Craig. "We will go there at once and inquire." And he set off along the shore of the lake.

"Why do you go that way?" asked Mr. Dustin. "It is nearer up through here, the way that Maud went."

"You cannot reach the house that way," answered Craig. "The creek flows just this side, and it is too wide and deep to cross. If we follow the shore here for a short distance we will strike the creek where there is a foot-bridge over it. If your daughter went that way she may not have reached the house at all. But we had better go and inquire."

This new disclosure took away the little hope which they had had. It was now quite dark. Stars were showing themselves with increasing splendor in the sky above, and a few were brilliant enough to reflect in the smooth water of the lake.

Craig knocked at the back door of the farm-house and made known their errand. Mrs. Norton and her daughters were alone in the house; the men of the family had not yet returned from town. No girl answering to the description of Maud had been seen there that day.

The women were thrown into considerable excitement when they learned the whole story. Mrs. Norton came into the open air with a lamp above her head and peered about in the night, expressing a keen sympathy for the anxious parents. The girls volunteered to join in the search, but Mr. Dustin, thanking them, would not permit this, for he was certain that Maud had found her way to some farm-house and was quite safe.

Craig and the anxious father retraced their steps to the spot where Maud had set out for the house, and there tried to reason out the course which she would be likely to have followed on discovering that the creek barred her way. If she had gone down the stream she would shortly have come to the foot-bridge, and so have reached the house. They decided that she must have gone up the stream, and accordingly set off in that direction.

It was now so dark in the forest that they could make their way only at a walk. Whenever the creek led them near a farm-house they left its banks and inquired after the missing girl. Thus Craig led the way toward his home. It was nearly midnight when they came out upon the road, half a mile to the west of "Wheelers Welcome." A light was burning in the house. Suddenly, as they looked, the farm-bell sounded on the still night air.

"Hark!" said Craig; and the two stopped in their tracks to listen.

"Ding, dong!" Silence. "Ding!" All was still for an instant, then two more strokes, "Ding, dong!" It was the signal Craig and his sister had agreed upon.

"She is found! They have found her! They have found her!" cried the excited boy; and both set off on a run for the house.

They reached there out of breath, but found the missing girl safe in her mother's arms. Maud had made her way back alone but a few minutes before. While she was resting and eating a bite she told her story.

"Why, papa," she said, "I went up toward the house and came to a creek and couldn't get across. Then I saw it wasn't their house," turning toward the Wheelers. "It wasn't where I wanted to go at all. Then I tried to go back to you; but you were gone, and I couldn't find you anywhere. I called and called, but you never answered—"

"I didn't hear you," said the father, sadly.

"I called awfully loud—why, till I got hoarse! Then I remembered that the creek went across the road down here, and if I followed it back I could get home. So I tried to find the creek again. I hunted and hunted, and it began to get dark. Then I cried."

"My child!" exclaimed Mrs. Dustin, drawing her closer.

"But I'm all right now, mama! By and by I hunted some more, and then I found the creek. It was awfully dark then, and I was afraid; but I followed the creek, oh, ever so long, and by and by I came out by the road! Then I was all right! Oh, but I'm tired!"

"We'll go right to bed at once," said the mother, "and you can rest as late as you're a mind to in the morning. Can't she, Mrs. Wheeler?"

"Indeed she can," was the answer.

This mishap of Maud's brought the two families very close together, and many confidences were exchanged. Mr. Dustin was the cashier of a Chicago bank; and, learning of the mortgage on the place, he made Craig promise to write to him if he ever had any trouble with the parties holding the claim on "Wheelers Welcome." "I shall be glad to help you in the matter if I can," he said.

The Dustins prolonged their stay until the following week. Maud and Jessie became almost inseparable during this time. Jessie's work was play for the younger girl, and she entered into it with great zest. She was never so happy as when arranging the table in the yard, decorating it with bouquets, brushing the crumbs after some patron had gone, or waiting upon others when Jessie had her hands full.

This help gave Jessie some liberty, and now and then she joined the others in their croquet games. Occasionally there was an hour when Mrs. Wheeler took charge of the work, and then the two girls treated themselves to a tramp afield. Maud was very careful about venturing far from her friend, for she had no desire to repeat the experiences of that time when she became lost.

Mr. Dustin wished to develop some of the views which he had taken since leaving home. As he had all the necessary chemicals with him, he had but to find a place light, tight and free of dust. With Craig's permission and assistance he transformed a corner of the shed into a dark-room, where he could work without fear of spoiling his plates. Clear, running water was had through the aid of the windmill and a length of garden hose. A ruby light was improvised, as were many other essentials to good work. But Mr. Dustin was a man of resources, and in the end the results which he obtained were as good as he could have done at home.

Craig was very much interested in the different processes from first to last, and snatched many moments from his duties, without neglecting them, in which to watch Mr. Dustin at his work. The latter was pleased with the interest which Craig manifested, and took pains to explain each step as he went along. It appealed to the boy as a very fascinating amusement, and he wondered if the day would ever come when he could permit himself to enjoy such pleasures.

CHAPTER VIII.

Craig had the farm-work so well in hand at this time that he decided to give himself a holiday. After the morning's chores were done he harnessed Mollie to the buggy, and he and Mr. Dustin drove to the Norton place.

Of course, they had to tell Maud's experience during the hours when she was lost in the woods. Then they borrowed Mr. Norton's boat, after putting Mollie in the barn, and went for a row and a fish on Wishwash lake.

The sky was heavily overcast with clouds, and it looked as if rain might fall any minute. There was but very little wind stirring, and the lake received the boat with scarcely a ripple on its dark, leaden surface. Craig declared if there were any fish at all in the water they should bite on such a day as this.

And, indeed, they were quite successful with their hooks and lines. The small fish they returned to the lake; but at noon Craig had taken two that weighed a pound apiece, and Mr. Dustin had three that were nearly as large. They had brought a lunch with them, and this they ate on the grassy shore at the farther side of Wishwash lake. In the afternoon they were even more fortunate with their lines, and at night carried home a fine string of fish.

On Sunday the Dustins and the Wheelers attended services in the little white church at the Corners. The Wheelers went with their buggy; but Mollie was hardly equal to drawing all, so the Dustins rode their wheels. Mr. Dustin was an officer in a Sunday-school in Chicago, and when called upon by the superintendent for a few remarks spoke in a breezy, cheerful way that was helpful and refreshing to all.

When they returned home Craig found two young men from Hillsborough resting in the yard, with their wheels leaning against the fence. These two had lunched at "Wheelers Welcome" a few days previously, and they were much surprised at finding all signs of its being a place of refreshment gone. Craig explained that they did not do business on the Sabbath; he did it in a very nice way, making no parade of his piety. But Mrs. Wheeler, knowing that the two had come far, and would have to return without anything to eat, unless she fed them, invited them in to stay and take dinner at her table. Craig had dressed the fish the night before, and placed them on ice, and there was an abundance for all.

When they came to leave they made as if to pay for their dinner, but Mrs. Wheeler would take nothing. They were greatly nonplussed at this, and at a loss how to act, for they were self-respecting fellows. But their hostess made known her position, and succeeded in dismissing them without any offense.

This, however, was not the end of the matter. On the following Sunday the superintendent of the little school at the Corners read an anonymous letter which he had received during the week, inclosing a dollar bill. It was an odd communication—only the Wheelers quite understood it, and they said nothing.

"Your Sunday-school will please use the inclosed as it sees fit," the note read. "It is to pay for a lesson in Sabbath-keeping taught two young men by members of your school."

That was all.

Monday morning the Dustins resumed their vacation trip. The two families parted with real regret and expressions of hope that the future might hold other meetings in store for them. Craig carried their luggage to Hillsborough, and there it was checked to the next stopping-place.

Mr. Dustin had wanted half a dozen good farm views, and he had taken as many about the Wheeler place. He finished up one of each of these, which he left with their hostess as remembrances of the delightful sojourn with them. Besides these there was a snug little sum of money—the usual rates at "Wheelers Welcome"—which swelled the fund to meet the interest due in October.

Hay harvest was now upon them, and for the next few days Craig was very busy. There were several acres of grass to cut and cure, then haul to the barn and mow away. He began as early as possible, in hopes of doing all the work himself, and thus saving the expense of hiring assistance.

"Hello, little boss!" cried some one from the fence, as Craig was driving down one side of the field with Mollie harnessed to the mower. The clatter of the knives was so great that Craig failed to hear the salutation; but he discovered Frazer waving his hand, and stopped Mollie to have a word with him.

"Ye'll need some help on that job, I reckon," said Frazer, as he surveyed the field before him.

"I shall get along all right alone till I come to mow it, say," answered Craig, wiping the perspiration from his brow. "Maybe I shall have to hire some one then."

"Now, see here, little boss," began Jack, "I've got to have some help, too. My boss, he's been called to sit on jury down to Hillsborough. We expected a man to come this mornin', but he disappointed us. An' Hunter says, says he, 'Make some dicker with Craig Wheeler. He's as good as a man in the field,' says he. Now, here's two hayfields about the same size, and we've each done about the same amount of work in 'em. Now, if you'll come over an' help me finish mine, I'll return the favor. I'll take Prancer and come over an' help ye out with your'n. What d'ye say, little boss?"

This suited Craig exactly, and he agreed to the proposition at once. The rails of the fence were accordingly parted and he drove Mollie and the mower into the field which had been leased to Mr. Hunter. There he followed Jack and Prancer with the mower, and the work which would have taken a horse and a man a whole day to perform was completed by the double force in the forenoon.

In the afternoon they turned the hay over, and spread it out to dry in the sunshine. The next morning the two went into Craig's field with their machines and cut the tall grass there, spreading it out later, as in the other lot. That on Hunter's land was ready first to go into the barn.

It was Friday before Craig was ready to haul his hay. The day had been intensely hot. Great masses of fleecy clouds floated lazily across the sky. Thus far the weather had been fine, but that morning it began to look threatening, and by the middle of the afternoon a heavy shower seemed inevitable.

Whenever the two stopped for a moment to wipe the perspiration from their faces they looked at the heavens and calculated the probability of getting through before a storm broke upon them. The hay had been put into little cocks all over the field, and thence was pitched upon the wagon. Not more than two loads remained to be hauled to the barn when the clouds gathered in a solid black expanse across the whole western sky.

"I'm afraid we can't do it, little boss," said Frazer, as it began to grow dark.

"It will spoil what remains out," declared Craig, looking hopelessly at the coming storm.

They worked like beavers. The lightning cut blinding lines across the black wall that rose higher and higher out of the west. The thunder rolled over the earth, echoing and re-echoing among the wooded hills.

For a moment the elements preserved an ominous silence. Craig worked doggedly, without speaking. He was downcast because of the loss that threatened him.

"Quick! Now for the barn!" cried Frazer. "We'll have just time to get this load under cover! Get up there, Mollie! Go on, Prancer!"

Frazer was on the load and drove through the open doors into the barn. Craig, with fork over his shoulder, paused a moment under the great elm, which stood near, and looked back over the fields. Far in the distance the rain was falling like a vast gray veil let down from the clouds.

Jessie had seen the storm coming, and worked hard to be prepared for it. Chairs were hurried into the house, the awning was taken down, the hammocks unfastened and rolled up with it, and all bundled under shelter, and the table in the yard was stripped of its decorations and carried indoors.

Three strangers rode up breathlessly on their wheels as the last article was put under cover, and these were invited into the house.

"I wonder where Craig is?" said his sister, anxiously. "Mama, it will spoil what hay he has out. Oh, I do hope he has it nearly all in the barn!"

Jessie ran to the back door to see if she could discover aught of her brother. The rain was already falling in great drops. Across the fields it could be seen gliding toward the house in the form of mighty sheets gray and tattered.

Now the storm broke over them with all its fury. Jessie caught a single glimpse of Craig in the barn and knew that he was under shelter. The great trees were thrashing about, writhing and twisting under the fierce onslaught. Wind and rain beat upon the earth in gusts, each succeeding one more terrible than the other. An awful din was everywhere.

Half an hour it lasted. Then there was an abatement of wind and rain, but the thunder and lightning seemed waxing in its terror. Jessie had worked herself into a high state of nervous excitement. As she looked from the kitchen door suddenly there came a blinding flash, then a crash, like a million boards rending and falling about her.

She had seen the lightning in a fiery streak descend over the barn. "Craig! Oh, Craig!" Jessie cried, and ran into the storm. "He is killed! I know he is killed!"

On the way to the barn her foot slipped. Things seemed to whirl and then grow black about her. With a little cry she fell unconscious in the pool of water before the stable door.

Chapter IX.

The thunderbolt which had drawn Jessie from the house did not strike the barn, as she had thought, but descended upon the great elm just beyond, and tore off one of its largest limbs, casting it upon the hillside.

"That was a close call for us, little boss," said Jack, his face no less white than Craig's.

For a moment they stood in the door looking upon the ruin it had wrought. Then Craig crossed the barn to glance toward the house to see how his mother and sister took the awful storm. He reached the opposite door just in time to see Jessie fall unconscious upon the wet and soaking earth.

Craig flew to her at once, and lifting the slender form in his arms, bore his sister to the house. Jessie's faint had only a moment's duration. When she learned that Craig was uninjured her recovery was rapid, and she soon felt like scolding herself for making more trouble when it seemed as if they had enough already.

The storm had passed now, and Craig went forth to view the damage it had done. The great bicycle and the sign of "Wheelers Welcome" had been blown down. The corn in the level-five lot, which had been up to his shoulders, lay bowed before the awful wind. His hay-cocks were drenched, and each resembled the head of some giant youth coming out of the water after a plunge. The hay might not be altogether ruined. To-morrow he would spread it out again, and leave it to dry once more. The corn, too, would straighten up, in a measure.

There would be no time to go to Hillsborough the next day to do their Saturday's marketing, but there were a few things that they must have. They could be purchased at the one store at the Corners, and he would make the trip after supper. In the meantime it was too wet to work in the field, but he could make the repairs on the sign, and put that in shape to hang in position early on the morrow.

After he had milked the four cows and had his supper Craig harnessed Mollie to the buggy and started for the Corners. The evening was full of beauty. The sun had gone down with fiery splendor in the northwest, the storm had rolled itself up like a purple mantle in the east, and then withdrawn below the horizon, taking every cloud from the sky. Birds were pouring forth their last songs in the soft, shadowless light, and earth and air seemed peculiarly sweet and pure since the bath of the afternoon.

They were just lighting the kerosene-lamps in the store at the Corners when Craig reached it. Half a dozen farmers were standing about, talking over the storm; a barn belonging to one had been struck by lightning and burned to the ground. There were others who were caught, as Craig had been, with his hay out. He lingered for a few minutes listening to the conversation, and in response to questions reported the damage that had been done in his neighborhood.

Mollie had worked hard the last few days, so did not travel with the spirit she usually displayed. Craig allowed her to choose her own gait, and most of the way she plodded along scarcely better than a walk. The steep, clay hills were slippery and had to be descended with great caution. The night was very still. The only sounds which reached Craig's ears were the regular plink, plink, of Mollie's hoofs in the mud, changed now and then to plash, swish, plash, as she plunged into some lingering pool. Along a certain piece of the road two of the steepest hills had been cut through and the dirt removed to fill the hollow that intervened. For a short distance a wall of many feet rose on either side; then this dropped away into the earth and left the road to pass unguarded over a narrow, precipitous embankment high above the surrounding country.

Craig was thinking of Jessie as he drove along here; of her rushing into the storm, and fainting, believing he had been killed. His home and home-life were very dear to him, and he trusted the day might soon come when he could remove the mortgage that hung like a threatening cloud above them. The rest with mother and the sister after a hard day's work was very sweet. Being, in a way, the head of the family, he experienced a feeling of pride and possession that was a real joy. He came from his reverie with a start. What was that—a groan?

"Whoa!"

He listened. All was still. Had he been mistaken? No. Far down the embankment came a moan now, and words that were groans, "Oh, dear! Oh, dear!"

Some one lay there seriously injured. Craig sprang from the buggy and made his way, leaping, falling through the dark, to the lowland beneath. Stumbling through the underbrush he presently fell over a bicycle. This explained to him, in a measure, the nature of the mishap. Guided by the moaning, in another moment he bent above the body of a boy two or three years younger than himself.

Craig spoke to the lad, but could get no answer other than moans. A moment he reflected, then lifted the unconscious form—the second his arms had borne that day—and carried it to the buggy.

It was nine o'clock when he reached home with his helpless charge. But Mollie was not to rest then; a doctor must be had from Hillsborough. Half a mile west of Wheelers' lived Judge Wentworth, and his fine residence was connected with town by telephone. Thither Craig went to summon the physician.

It was midnight when Dr. Orland arrived. The injured lad had regained consciousness, but was suffering greatly. There were no broken bones to be found, but it was evident that the spine had been severely injured. After administering a quieting drug the doctor left, promising to call during the day.

That night brought little rest to the farm home.

In the middle of the forenoon Mrs. Wheeler came with an egg and some toast for the stranger. She found him resting a trifle easier. "If you will eat a little," she said, "I think it will do you good. Let me sit here and feed you."

He made no reply, but opened his mouth for the food when she presented it. Only two or three swallows, however, would he take. He lay perfectly motionless in the bed, turning his eyes upon this or that object in the room.

"You are better," she said, smiling.

"Oh, if I do not move! But the least motion of the body kills me!"

Tears stood in his eyes.

"You have friends who will be anxious for your safety. Where will we send word to them?"

"Father and mother are in Europe. I have an uncle in New York. A letter in my pocket—"

He glanced toward his coat, which hung on the back of a chair at the foot of the bed. Mrs. Wheeler understood. From this she learned that the stranger's name was Arthur Staten, and that he belonged to a wealthy New York family.

Later there were moments when the boy talked quite freely; then he would be seized with a paroxysm of pain, and his suffering would be intense. He begged her, however, not to send word to his uncle till the doctor came again; for he was in hopes to recover without worrying his people with news of his mishap.

The Wheelers talked low and moved about the house noiselessly, that Arthur might not be disturbed. Craig was overwhelmed with work. The sign of "Wheelers Welcome" remained in the barn, whither it had been taken for repairs. Craig labored in the hay-field, but came often to the house to assist his mother and sister. Speculations were rife regarding the young stranger.

"He wears a 'C. E.' pin on his coat," said Jessie to Craig, as the two met a moment at the well.

No better recommendation could Arthur have brought to the Wheeler home than this.

"Oh, but he's hurt awfully!" the girl continued. "I feel so sorry for him. Mama thinks it will be a long while before he can get about. Arthur Staten is his name. His people are rich; they're in Europe now. There's one thing—we won't take any more lodgers so long as he's to stay here."

Jessie said this as a favor which she was glad to grant to the injured boy.

Craig took his sister to the barn to see Arthur's wheel, which he had brought home with him the night before, after telephoning for Dr. Orland. Their conference was broken up presently, for Jessie had to leave to wait upon two or three strangers who came riding into the yards on their wheels.

The doctor came in the afternoon and looked very grave.

"Am I hurt seriously?" Arthur asked, looking into his face, after the second examination.

"You will recover," the doctor replied, very gently, "but it will be some time. You had better let your friends know."

"Whatever is best to be done, my papa would want done. He has money, and will gladly pay it all for me." This was said with a quiet assurance. "I am left with Uncle Morton. Papa and mama are in Europe for the summer." Arthur turned to Mrs. Wheeler, who stood by the bed. "You have uncle's address. If the doctor thinks he ought to know, some one can telephone him. But I would rather not trouble him if I can get well in a few days. I have money," and he glanced where his coat had hung.

"I think I had better let him know," Dr. Orland said, quietly.

At the outer door he talked more with Mrs. Wheeler. "His spine has received a severe strain. It will be weeks and months before he regains his old strength. I shall come to-morrow with Dr. Chauncey. We must put the boy into a plaster jacket. I will telephone his uncle"—he looked at the address she had given him—"and let you know what I find out. The boy cannot be removed for the present. It would be better if he could remain here till he recovers. I could not ask for a better nurse than you, Mrs. Wheeler. I hope his people are rich, for you must not do this without some recompense."

"He is welcome to remain here. I cannot see the boy suffer for the want of care. Of course, you know our circumstances, doctor. I hope I may do by him as I would by my own son!"

Chapter X.

Sunday was a long day at the Wheelers'. Dr. Orland came in the morning with Dr. Chauncey, and they put Arthur in the plaster jacket, as was intended. The injured lad bore his sufferings very patiently.

Dr. Orland had communicated with Arthur's uncle, and Mr. Staten was so concerned for the boy's welfare that he was coming West at once. He had told the physician to spare no expense in caring for his nephew, but to do all he could to restore him to a sound physical condition. The conversation had been held over a long-distance telephone, and all that Arthur had told them of himself, together with much which had been surmised, was confirmed by the New York uncle.

In the afternoon Jessie read to Arthur and helped to pass the weary hours away. Now that it was impossible for him to move his body without assistance he no longer brought on the paroxysms by thoughtlessly turning in bed. The injured ligaments forced from activity would heal in time; all that Arthur had to do was to lie still and patiently await his recovery.

On Tuesday his uncle came, bringing with him their family physician, who, after a careful examination, declared all was being

done for the crippled boy that could be. In the absence of his brother Mr. Staten was a very busy man. The next day he and the New York doctor were obliged to return to the city; but first they made every arrangement to meet Arthur's needs.

Each day that followed was very much like another to the bed-ridden boy, but his new friends did what they could to make the time fly quickly. Mrs. Wheeler was a faithful nurse, and bestowed a mother's care on the unfortunate lad. On his part, Arthur was an ideal invalid. It was rare that he complained of anything, and he always showed a fine appreciation of their kindness.

When Craig sat down in the house it was always in the room where Arthur had his bed. He was sure to bring in with him the sunshine of the fields and the cool breezes of the hills. As Arthur improved the two talked long of the past and the future, of their hopes and ambitions. Arthur told of the summer vacation which he had planned: how he had ridden nearly a thousand miles on his wheel before this mishap befell him. He had traveled and seen much for a youth of his years, and could talk of these things modestly and entertainingly.

When Jessie's work was well in hand for the day she would sit by his bedside, where she had a good view of the front yard, and could fly at a moment's notice if any one stopped for a dish of ice-cream or a drink of buttermilk. Jessie spoke of the "C. E." pin that day, and said that Craig and she had been members of Christian Endeavor societies when they were at school. There was no young people's society in the little church at the Corners. They still took the society's paper, however, and, following its directions, were reading the Bible through, intending to complete this worthy endeavor with the close of the year.

"Oh, are you doing that?" exclaimed Arthur. "I began it, and read the chapters faithfully till I was injured."

"I wondered if you weren't," said Jessie. "Craig found your Bible in the bundle on your handle-bars when he fetched those packets you wished last week. It dropped from the bundle and fell open, with a mark right where we were reading them. If you would like me, I will read to you."

"Thank you," returned Arthur. "You do so much for me now. The doctor said I might read a little to myself if I wouldn't try to hold anything very heavy with my hands. A Bible with print large enough to see here would be too heavy. I mustn't strain my eyes. You are 'way ahead of me now, and I couldn't ask you to go back and read your chapters over again. You read so much to me now."

"Oh, if you would like to read the chapters to yourself I can manage it so you will be able," replied Jessie, with a happy ring in her voice. "I know where there is a large Bible that is all to pieces; the cover is gone and the leaves are all loose. Mother says it seems wrong to throw away or destroy a scrap of the Bible, and so she always lays them away carefully when they are worn out. I will get it for you, and you can have one or two pages at a time, and they will not tire you to hold."

Away Jessie flew to the garret. But she was gone only a few moments. "You see it is awfully old," the girl said, as she returned, holding up one of the yellow leaves for him to view. "The s's are all printed like f's, but otherwise it is the same King James' version that we use to-day. It is the Bible my great-grandfather read in his family, I suppose, more than a hundred years ago."

"Oh, it is indeed old," Arthur answered. "You will wish to preserve it a long time. I will be very careful of the pages. The type is queer, but so very large and plain. I shall not mind the queer s's at all. Thank you. Haven't you some customers? I thought I heard voices in the front yard while you were gone."

Jessie glanced from the window. "Yes; there are two Hillsborough girls. You will excuse me," and she hurried out to wait upon her guests.

In this way the remaining weeks of July and the whole of August slipped away. Arthur steadily improved. As soon as he could handle paper and pencil he wrote, telling his mother all. Letters came to him twice a week from across the water, and he read much in these that interested his newly made friends. And the two families, though severed by thousands of miles, through Arthur's correspondence, came to feel acquainted with each other.

In September Arthur had become so much better that when stood upon his feet he could walk about the house and yard. He expected his parents back from Europe now, in a short time, and Dr. Orland thought, with his father to accompany him, he might return to his home in New York. Arthur had no intention of forgetting his friends when he should leave them, but talked and planned of letters and visits which would be exchanged in the future.

For the Wheelers the summer had seemed unusually full. Each day had brought its quota of strangers to the place, together with the few from the immediate country-side, who came again and again. Mother and children often talked over the little adventures which had come into their life. Frazer had apparently become a worthy citizen; it was known that he sent money home to his mother in Canada. To Arthur Staten the Wheelers had been of incalculable service. Had Craig not found him that night in his condition the exposure would very likely have cost him his life.

Thus, while the owners of "Wheelers Welcome" were doing good to others, prosperity was being brought home to themselves. In the Hillsborough bank an account was growing steadily to their credit. Mr. Staten was paying them twenty-five dollars a week for the care of Arthur—a large sum it seemed to country-folk—but it was only what a nurse would have cost in the great city.

In the second week of September Arthur received a letter announcing the safe arrival of his parents in New York. The next day his father drove up to the gate of the farmhouse, having followed his letter as quickly as was possible. It would be hard to tell which was pleased the most—Mr. Staten with the Wheelers, or the Wheelers with Mr. Staten. The wealthy New-Yorker was satisfied that his son had had every possible care, and that after a most serious accident he was well on the road to complete recovery.

Two days he remained with the family. Then, in a light spring-wagon, Craig drove father and son to the station in Hillsborough. Arthur did not take his wheel with him, but asked Craig to accept it as a token of his appreciation of what had been done for him. The bicycle was one of the best made, new that summer, and had come through the accident without an injury.

With the departure of their invalid guest the summer season might be said to have closed. "Wheelers Welcome" continued to have a few callers each day, but these grew less and less. Craig was very busy putting vegetables into the cellar, picking and packing apples and cutting up his corn. The year had been a bountiful one for the farmers.

Mrs. Wheeler began to look to the future with greater assurance. Gathered in their little sitting-room as the cold of autumn came on, the family of an evening often held an impromptu council. With Craig and Jessie at the table poring over figures, the mother would come and stand by while listening to results.

"Did you say our share from Mr. Hunter would be three hundred dollars?" asked Jessie.

"Yes; that was the sum he and I arrived at last night," answered Craig. "We shall be able to pay the interest next week when Mr. Atkinson comes for it, and besides reduce the mortgage five hundred dollars."

"If we could have five more years as good as this one!" said Jessie, drawing in her breath with a happy anticipation.

"We shall pay the mortgage off in that time," said Craig, "even if the years aren't so prosperous; there will be less interest to pay."

"Isn't that lovely, mama?" said Jessie. "Our home isn't going into other hands yet awhile."

Mrs. Wheeler stood over Craig, absently running her fingers through the short curls that covered his handsome head. Her eyes were fastened on the father's portrait which hung upon the wall.

"God has been very good to us," she said, though tears dimmed her vision.

THE END

COOLING WATER WITHOUT ICE

When a native in one of the boiling-hot little villages of interior Nicaragua wants to cool some water she fills a half-gallon earthenware jar about two thirds full. Parenthetically I say "she," because this is a task that requires more energy than any male Nicaraguan was ever known to possess. The jar is made of baked clay, and not being glazed is partially porous and soon becomes moist on the outside. Two leather straps are firmly attached to the neck, and seizing these in her hands she begins to rotate the jar swiftly in the air. The mouth is wide open, but centrifugal attraction keeps the liquid from flying out. The average native woman is frail and listless in appearance, but the endurance which they exhibit at this sort of calisthenics is marvelous. It is about the same as swinging Indian-clubs, and I am afraid to say how long I have seen them keep it up lest you might set me down as a prize liar. Generally the lord and master lies in one corner of their "jacal," or hut, smoking a cigarette and watching the operation languidly. When the woman thinks the water is sufficiently cool she stops with a dexterous twist of the wrist, and hands him the jar. Usually he takes a gulp, growls out "Moocha calora!" which is native patois for blamed hot, and she begins again patiently describing pin-wheels. I have never made a test with a thermometer, but I can assure you they can reduce tepid water to the temperature of a very cool mountain spring. In Mexico the natives confine themselves, as a rule, to dampening the jar on the outside and placing it in a current of air. Near the little mountain village of San Rosa, on the Mexican Central, there is a cave, through which a strong breeze passes at all hours of the day. I have seen the mouth almost choked with water-jars, left there to cool off.—New Orleans Times-Democrat.

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OUR SUNDAY AFTERNOON

MY LIFE IS LONG

BY CHRISTINA ROSSETTI

My life is long—not so the angels say
Who watch me waste it, trembling whilst they weigh
Against eternity my lavished day.
My life is long—Christ's word is different;
The heat and burden of the day were spent
On him; to me refreshing times are sent.
Give me an angel's heart, that day nor night
Rests not from adoration its delight,
Still crying, "Holy, holy!" in the height.
Give me the heart of saints, who, laid at rest
In better paradise than Abraham's breast,
In the everlasting rock have made their nest.
Give me thy heart, O Christ! who thirty-three
Slow years of sorrow countest short for me,
That where thou art there thy beloved might be.

THE YOUNG MAN AND HIS INCOME

It has been asserted that every one can live within his income; and of the average young man, at least, this is doubtless true. At all events, the necessaries of life are very cheap, and small, indeed, must be the wage that will not permit a young man to support life soberly and decently. It is the luxuries that come high; the unnecessary cigars, the indulgence in liquors, the questionable entertainments, the betting, the card-playing, trying to ape those in better circumstances—these are the things for which young men usually go into debt, not for the necessaries of life. For the "husks of swine," verily, they mortgage themselves, souls and bodies.

For the sake of gratifying his vanity by dressing as well as others who have more than double his means; by wishing to appear what he calls as "up to date" as his friends or boon companions, many a young man mortgages his future, sells his birthright without even the excuse of Esau, whose necessity was at least real. His wants are imaginary, and their gratification only serves to create an army of unlawful desires, which drag him lower and lower into the slough of debt, despondency and degradation, until manhood, honor, hope, enthusiasm, self-respect—all that makes life dear—goes out in night and darkness.

"A contented mind is a continual feast," but a feast that can never be enjoyed by the unhappy victim of debt. Corroding care must ever be his companion, robbing him of strength, sapping his ambition and destroying that peace and tranquillity so absolutely essential to the successful pursuit of his occupation or profession.

Let not the young man who is living beyond his income deceive himself with the sophistry that he will retrieve his position. Let him not build airy castles of future successes that will redeem the past, only to be crushed beneath their ruins. Out of your present you are building your future, and as surely as night follows day will you reap that which you have sown. Be not deceived. The law is inexorable. You cannot escape the consequences of your ease. If you sow tares in the springtime of your life, these will make your harvest; if good fruit, then will the autumn fill your granaries. Remember, too, that there is but one seed-time, and that for you it is fraught with weal or woe. There is but one garnering-time, and it rests with you alone whether you shall garner honor or shame, success or galling poverty, righteousness or unrighteousness.

Make your income, no matter how small it may be, the boundary-line of your expenses, and, without being penurious, keep as far within this boundary-line as possible. Extravagance, ostentatious display, a desire to outshine others, is a vice of our age, and especially of our country. Unfortunately, too, the working poor, as well as the idle rich, cater alike to its dictates.

Frugality, its opposite, is a virtue which many young men nowadays would be ashamed to cultivate. And yet its great exemplar was the man of men, who, when he miraculously fed the multitude with a few loaves and fishes, commanded his disciples to gather up the fragments, lest anything should be wasted. There was no need to do this; for, if he chose, he could again, as he did when occasion demanded, repeat the miracle. But his every word and act emphasized a truth or taught a lesson; and this certainly teaches the practice of economy, adherence to the old-fashioned adage, "Waste not, want not."

Ah, how much easier it is, after all, to practise a little self-denial, even for a time to deprive one's self of some of the necessaries, than to suffer the stings of conscience, the torture of being constantly goaded by creditors without the means of satisfying them, the horror of being chained day and night to a load from which there is no deliverance, the humiliating consciousness of being a mere chattel slave, whose time and thought are, in a sense, owned by others! In the words of "Poor Richard," who is particularly strenuous on this subject, "Better go to bed supperless than rise in debt." Better suffer any temporary privation, any of the numerous inconveniences that poverty entails, than bury one's self in this moral quagmire from which escape is so difficult, and which too often, alas, engulfs integrity, veracity, manliness, honor, character, leaving on the shore of "life's unresting sea" but the broken hulk of what might have been a noble ship.—Success.

TOO BUSY TO BE KIND

"I sometimes think we women nowadays are in danger of being too busy to be really useful," said an old lady, thoughtfully. "We hear so much about making every minute count, and always having some work or course of study for spare hours, and having our activities all sympathized, that there is no place left for small wayside kindnesses. We go to see the sick neighbor and relieve the poor neighbor, but for the common every-day neighbor who has not fallen by the way, so far as we can see, we haven't a minute to spare. But everybody who needs a cupful of cold water isn't calling the fact out to the world, and there are a great many little pauses by the way that are no waste of time. The old-fashioned exchange of garden flowers over the back fence and a friendly chat about domestic matters helped to brighten weary days and brought more cheer than many a sermon. We ought not to be too busy to inquire for the girl away at school or to be interested in the letter from the boy at sea. It is a comfort to the mother's lonely heart to feel that somebody else cares for that which means so much to her. Especially we ought not to be too busy to give and receive little kindnesses in our home." May no one be able to say of us that we are too busy to be kind.—The Young Woman.

A SPLENDID RECEIPT

"I want a drink," said baby.

"Go to the kitchen. Mary will give you a drink," said mother.

"I don't want to," baby demurred. "Mary is cross."

"Why, what made her cross?" asked mother.

"I dess I did sumpin' to her," said baby.

"Then if you have done something to make her cross you would better go and do something to sweeten her," suggested mother.

Baby thought over it a minute, and then trudged to the kitchen.

"You are a sweet Mary," he said, "and I want to hug you."

Mary stopped her work and stooped, and he threw his arms about her neck and kissed her, and said, "I love you two hundred bushels."

When he came back, smiling, mother asked, "What did you do to Mary this time?"

"Oh, I sweetened her, I dess," was the reply.—Our Morning Guide.

A REMEMBERED PROMISE

There is a nice little story which a woman who knows Emma Eames, the singer, personally tells of her. It was after Mme. Eames had become famous and a well-known picture of her by her husband was on exhibition in Boston that it came out. The woman who knew Emma Eames had gone down to see the picture, and as she stood before it she noticed beside her a plain, little old woman wearing a circular and carrying an old-fashioned reticule. The two fraternized, and the little woman with the reticule told the other the story.

It was before Emma Eames became famous, before she had gone abroad or sung in grand opera, that the little woman was her dressmaker. Then came the time when the ambitious young singer started for the other side, looking for fame and fortune. Before she left she said to the little dressmaker:

"If I get to be a great singer while I am gone, Mary, when I come back to sing here you will be the first person to whom I shall send tickets."

"And when she came back she was a great singer," said Mary, telling the story, "and the first thing she did when she reached here was to send me tickets."—New York Times.

WATCHWORDS TOWARD PROSPERITY

"He who despises small things shall perish little by little."

A slight debt produces a debtor; a heavy one an enemy.—Publius Syrus.

The borrower runs into his own debt. —Emerson.

Increase your wealth by lessening your desires. Develop a capacity to do without money.

"Debt makes everything a temptation. It lowers a man in self-respect, places him at the mercy of his tradesmen and servants. He cannot call himself his own master, and it is difficult for him to be truthful."—Smiles.

To do your best you must own every bit of yourself. If you are in debt, part of you belongs to your creditors. Nothing but actual sin is more paralyzing to a young man's energies than debt.

Neither a borrower nor a lender be;
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry.
—Shakespeare.

"Ere fancy you consult, consult your purse."

"WHAT YOU ARE"

A little boy was on the scales, and being very anxious to outweigh his playmate, he puffed out his cheeks and swelled up like a little frog. But the playmate was the wiser boy. "Oho!" he cried, in scorn, "that doesn't do any good; you can only weigh what you are!" How true that is of us bigger children, who try to impress ourselves upon our neighbors and friends, and even upon ourselves, and, yes, sometimes upon God Almighty, by the virtues we would like to have! It doesn't do any good. You may impose upon your neighbor's judgment, and get him to say you are a fine fellow—noble, brave, faithful, loving; but if it is not deeply true, if you are not generous, brave and loving, these fancied qualities are not moving him to be generous, brave and loving. "You can only weigh what you are."—The Wellspring.

LEAVING NO STING

Our manner of doing a thing often counts for more than the thing itself. Some people have the gift of doing a gracious thing ungraciously. They seem to think it of small moment how they act, if they do the right thing. Their gifts are felt like a blow. Others refuse with a kindness that falls like balm. The Italian who is asked for alms, unable to help, replies, "Pardon me, I also am a poor devil." That leaves no hurt, while the open hand of some others inflict a sting. "God cares more for adverbs than for verbs," says an old writer. Do the right thing, but do it rightly, courteously, sympathetically.—Sunday-school Times.

"THE POWER OF AN ENDLESS LIFE"

Dr. George H. Hepworth, in one of his recent New York "Herald" sermons, speaking of the influence of the belief in immortality, declares that the brightest, holiest and most inspiring thing under the sun is a belief that we shall wake up after sleep. It gives us courage, broadens our shoulders and makes us rich in anticipation. The other life is better than this, and when there we shall complete the work which we left unfinished as the shadows fell on our short and troubled career.

SCISSORS OR ORANGES?

My wife told me one day that she had just come from a friend's house, where one of the children, a little boy, had been cutting something with a knife, and it had slipped upward and put out his eye, and his mother was afraid of his losing the other one. Of course, after that my wife was careful that our little boy, two years old, shouldn't get the scissors, or anything by which he could harm himself. But prohibit a child from having any particular thing, and he's sure to have it; so one day our little fellow got hold of the scissors. His sister seeing what he had, and knowing the law, tried to take the scissors from him, but the more she tried the more he clung to them. All at once she remembered that he liked oranges, and that there was one in the next room. Away she went and back she came.

"Willie, would you like an orange?" The scissors were dropped, and he clutched the orange.

God sometimes takes away the scissors, but he gives us an orange. Get both your feet into the narrow way; it leads to life and joy; its ways are ways of pleasantness, and all its paths are peace. It is the way of victory, of peace; no gloom there; all light.—Moody, in Current Anecdotes.

THE BEST STIMULANT

The best possible thing for a man to do when he feels too weak to carry a thing through is to go to bed and sleep as long as he can. This is the only recuperation of brain-power, the only actual recuperation of brain-force; because during sleep the brain is in a state of rest, in a condition to receive and appropriate particles of nutriment from the blood, which takes the place of those consumed by previous labor, since the very act of thinking burns up solid particles, as every turn of the wheel or the screw of the steamer is the result of consumption by fire of the fuel in the furnace. The supply of consumed brain-substance can only be had from the nutritive particles in the blood, which were obtained from the food eaten; and the brain is so constituted that it can best receive and appropriate to itself those nutritive particles during the state of rest, of quiet and sleep. Mere stimulants supply nothing in themselves; they goad the brain, force it to greater consumption of its substance, until it is so exhausted that there is not power enough left to receive a supply.—Medical Journal.

GOD KNOWS BEST

"I need oil," said an ancient monk. So he planted him an olive sapling.

"Lord," he prayed, "it needs rain, that its roots may drink and swell. Send gentle showers." And the Lord sent a gentle shower.

"Lord," prayed the monk, "my tree needs sun. Send sun, I pray thee." And the sun shone, gilding the dripping clouds.

"Now frost, my Lord, to brace its tissues," said the monk, and behold, the little tree stood sparkling with frost. But at evensong it died. Then the monk sought the cell of a brother monk, and told his strange experience.

"I, too, have planted a little tree," he said, "and see, it thrives well. But I entrusted my little tree to its God. He who made it knows better what it needs than a man like me. I laid no conditions. I fixed not ways or means. 'Lord, send it what it needs,' I prayed—'storm or sunshine, wind, rain or frost. Thou hast made it, and thou dost know.'"—Selected.

SMILES

MY BROTHER JIM

My brother Jim's the bestest boy that ever played f'r keeps;
He let's me tag on all his fun—knows I never peeps;
An' when he sneaks away to skate, 'cause ma ain't said he could,
He's sure I'll stay to home an' split the mornin's kindlin'-wood.

You ort to see me beat th' rugs when Jim's a-standin' by!
You better bet I hit 'em up—th' dust a-flyin' high;
An' oh, it does me good to hear—behin' the carpet hid—
Our Jimmy say to Petey Burns, "Ain't he a dandy kid!"

Of course, I run his erran's, too, f'r yeast, cakes an' f'r bread,
'Cause once he lemme see "de gang" a-smokin' in our shed!
An' lots o' times I hold his coat when he plays ball or tag;
An' if I clean the walk he lets me hit his punchin'-bag.

My brother Jim's the bestest boy that ever caught a ball;
Whatever 'tis he has to do he lets me do it all.
I don't deserve his conferdence—that's what I says to him;
I tell you there ain't many boys with such a brother Jim!

—Cleveland Plain Dealer.

THE INDISPENSABLE ITEM

How strange is woman! In her brain
She has one penchant, firm and clear,
And though no other point she gain
To this one thought she will adhere.

Gloves may be old and shoes passe,
Her frock be shabby—all of that—
But on her head, big, towering, gay,
Though skies may fall, she'll have a hat.

—Chicago Record.

A CENSUS STORY

Here is another New York census episode illustrating some peculiarities of the feminine character:

"In what year were you born?" asked the enumerator.

"In 1846," answered the lady.

"Then you are fifty-four," said the enumerator.

"Indeed I am not; I am fifty-two," she retorted, sharply.

"And yet you were born in 1846?"

"That is what I said, sir."

"Then you must be fifty-four."

"No, fifty-two."

"Well, but how do you account for the additional two years?"

"I don't account for them. I don't have to. It's none of my business. I was born in 1846, and I am fifty-two years old, and that is all there is about it. I know my own age, I suppose."

This closed the incident.

THE CONFOUNDING

"Your twin nephews look so much alike that I should think you would often confound one with the other!"

"Yes!" growled old Mr. Grout, crabbedly, "and I often confound 'em both on that account, confound 'em!"—Puck.

THE PATHOS IN TEA

In one of the Cleveland public schools the teacher said to the class in English composition, "I wish every member of the class would write out a conversation between a grocer and one of his customers, introducing some pathetic incident or reference."

Among the compositions handed in was the following, by a little girl:

"'What do you want?' asked the grocer. The lady answered, 'A pound of tea.' 'Green or black?' asked the grocer. 'I think I'll take black,' she said; 'it's for a funeral.'"

THE WRONG MAN

"Say, mister," said the man who was too strong to work, "will you please let me tell you just how it is? I don't ask you for money; but I'm starvin', actually starvin', here in this great city. Wouldn't you please to give a fellow a lift to git something to eat?"

"Sorry I can't do it," the other replied, "but giving a fellow a lift is not in my line. I'm an auctioneer. It's my business to knock things down."—Chicago Times-Herald.

NO SHOW FOR HOME RULE

To illustrate the feeling of Ireland toward the predominant partner, an actor who has lately been touring tells the story of an old waiter in a Dublin hotel.

"When are you going to get home rule in Ireland, John?" was the question.

"See ye here, sor," said the old man, "the only way we'll get home rule for ould Ireland will be if France, an' Russia, an' Germany, an' Austria, an' maybe Italy, if they would all join together to give those blaygiards of English a rare good hiding. That's the only way we'll get home rule, anyway."

Then, as he looked cautiously around, a twinkle of cunning and a smile of courtesy were added to the expression.

"An' the whole lot of 'em shoved together couldn't do it," he said. "Oh, it's the grand navy we've got!"—London Chronicle.

WHICH WAS IT?

"I want to know," cried the irate visitor, "whether that item of yours in regard to me is an intentional slur or merely editorial asininity?"

"What are you talking about, my dear sir, and who are you, anyway?" asked the editor.

"I'm Dr. Killiam, and I refer to your announcement of the sudden illness of the Honorable John Jones, in which you say, 'Mr. Jones is in great danger. Dr. Killiam has been called in.'"—Philadelphia Press.

THE SPAN OF LIFE

A man recently summed up life this way: "You're born. Somebody supports you for awhile. Then you support somebody for awhile. Then you get old and somebody supports you for awhile again. Then you die and the folks wear themselves out paying for your funeral. You're always a burden or with a burden."—Boston Home Journal.

A BUSINESS HEAD

Lady—"I wish to get a birthday present for my husband."

Clerk—"How long married?"

Lady—"Ten years."

Clerk—"Bargain-counter to the right."—New York Weekly.

IMITATION

"I huyh de white young lady say dat she was gwineter cut de yuthuh young lady dat made huh so mad," said Miss Miami Brown.

"It's scan'lous de way dese white folks is actin'," answered Mr. Erastus Pinkley. "Fust dey sing coon songs, den dey does cake-walks, an' now dey's gwine in foh carryin' razzers."—Washington Star.

ECHOES FROM THE PLATFORM

"We're all equal," said the earnest citizen. "One man's vote doesn't count for any more than another's."

"Of course not," answered Senator Sorghum. "That's the great principle that enables us to keep the price down and make quantity take the place of quality."—Washington Star.

SHE KNEW

"I hope, Mrs. Giles," said a lady who was canvassing for a choir at the village church, "you will persuade your husband to join us. I am told he has a sonorous voice."

"A snorous voice, marm?" said Mrs. Giles. "Ah, you should hear it comin' out of his nose when he's asleep!"—Spare Moments.

NO REFLECTION ON HER BRINGING UP

Dinah—"Oh, mother, my fingers are so sore where the nasty nettle stung me!"

Mother—"Never mind, Dinah dear. Put your fingers in your mouth—that will stop the pain."

Dinah—"I can't, mother; they are too dirty. Put them in your mouth, please!"

THE REASON FOR IT

Watts—"Ever notice how kindly an audience takes to jokes about policemen or about women? That is, the men do. I'm afraid it is a bad sign."

Potts—"Don't you worry. It is human nature to enjoy seeing one's bosses made fun of."—Indianapolis Press.

A CHILD'S REBUKE

A little four-year-old miss was overheard talking to her favorite doll that had accidentally lost an arm, thereby exposing the sawdust. "Oh, you dear, good, obedient dolly; I know I told you to chew your food fine, but I had no idea you would chew it as fine as that!"

THEN SHE WANTED IT, TOO

Mrs. Wilful—"My husband told me if I didn't like this brooch you'd exchange it for me."

Jeweler—"Certainly, madam. I'll be only too glad, as four different ladies of your set wanted it."—Jewelers' Weekly.

HEARSAY FAITH

"Papa," said the seven-year-old, "is heaven a nice place?"

"Yes, my little daughter," replied the father. "It is said to be."

"But you will never know for sure, will you, papa?"—Pittsburg Chronicle-Telegraph.

SUPPLY AND DEMAND

Peddler—"Any tins, ma'am?"

Housekeeper (indignantly)—"Those tins you sold me last week have all gone to pieces!"

Peddler—"Yes'm. I knew you'd want some more by this time."—New York Weekly.

WHY HE FLED

"Why did the young minister leave so suddenly?"

"The Maiden Ladies' Home Missionary Society took up the task of finding him a suitable wife."—Philadelphia North American.

PREPARATORY

Book-keeper—"Your wife is at the door, sir, and would like to speak with you a moment."

Mr. Sellers—"Yes; just see what my balance at the bank is, will you?"—Harper's Bazar.

AGREED

The mistress—"Bridget, you must stay until I get another girl."

Bridget—"That was my intenshun, anyway. Oi want her to know the koind ov a woman ye are!"—Harper's Bazar.

A MUTUAL UNDERSTANDING

He kissed her suddenly. "Well, I like that!" she cried.

"So do I," he answered, calmly; and she let it go at that.—Roxbury Gazette.

A dollar will buy a lot of necessities, but few pleasures.—Atchison Globe.

Making hay while—

—the son shines.

—Judge.

NICOTINIZED NERVES.

Millions of America's men day after day feed their nerves with tobacco, until the nerves become nicotinized and the blood tobacco-tainted, then the NERVES creep and crave for more tobacco. That's called a habit. It's a disease, and in all this world there is but one guaranteed cure,

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HOUSEHOLD

[CONTINUED FROM PAGE 11]

WHEN I AM DEAD

"When I am dead," she said, "I pray you, dear,
Think of me not as far away, but here
Beside you; ever in the sweet, old place,
Where we sat hand in hand and face to face;
Not as a homesick soul in some far sphere.
Through all the days and nights shall I be near;
In summer twilights, or when earth is sere;
Lo! I shall beg of death for this one grace,
When I am dead.

"Not as a sad-eyed ghost will I appear;
I shall bring all of comfort, naught of fear.
Only the woman that you love will come;
No death is strong enough to hold me dumb
Or helpless, summoned by your lightest tear,
When I am dead."

—Theodosia Garrison, in Truth.

ELDERBERRIES

Elderberries are so common in this country, and other fruits so abundant, that we hardly appreciate the elderberries as we should. The following are some of the many nice ways of using them:

To Can Elderberries.—To every four pounds of berries allow one pound of sugar. Sprinkle the sugar over the berries in a granite kettle and let them stand one or two hours, then place over a moderate fire and bring to the boiling-point. Skim, and can immediately in self-sealing glass jars the same as any other fruit.

To Can Elderberries for Pies.—To nine pounds of berries add three pounds of sugar and one pint of vinegar. Let boil thoroughly, then can at once. When you make the pies add a pinch of salt to each pie, and also a scant tablespoonful of flour, and bake with two crusts.

Spiced Elderberries.—With one pint of cider vinegar, two ounces of stick cinnamon and two ounces of whole cloves boil four pounds of sugar for ten minutes; skim out the spices and put in eight pounds of berries, and boil thoroughly. Skim out the berries and let the syrup boil down to half the quantity. Return the berries to the syrup, and when boiling put in jars and seal.

Spiced Elderberries, No. 2.—Place three pounds of brown sugar and one pint of vinegar in a granite kettle over the fire, and when they boil add nine pounds of cleaned elderberries. Let boil two and one half hours, then add one ounce each of ground cloves, allspice and cinnamon tied in little bags. Simmer fifteen minutes; take off, and seal in cans.

Elderberry and Grape Jelly.—Mash four pounds of ripe elderberries and four pounds of green or partially ripe grapes and put them in a granite or porcelain-lined kettle; add one half cupful of water, and boil until soft. Strain through a jelly-bag, measure the juice, return it to the fire, and boil thirty minutes; add an equal quantity of sugar, boil five or ten minutes longer, pour into glasses, and seal when cool.

Elderberry and Siberian Crab Jelly.—To six quarts of elderberries take four quarts of Siberian crabs; put into separate kettles, cover well with water, and boil well until soft, but not mushy. Then strain through a bag, but do not squeeze, add one pint of sugar to each pint of juice, and boil in one vessel from twenty to thirty minutes or until it jells. This makes a nicely flavored as well as a nicely colored jelly.

Elderberry Catchup.—To one quart of elderberries add one pint of vinegar, six anchovies soaked free from brine and then pulled to pieces, and one half teaspoonful of mace. Boil the berries with the vinegar until the berries begin to burst, then press them through a sieve; return to the fire, and add the anchovies and mace. Let simmer until the catchup is of the desired consistency, then bottle and seal.

Elderberry Pie.—Line a pie-tin with paste; fill with two heaping cupfuls of fresh elderberries, scatter over them two thirds of a cupful of sugar, one tablespoonful of flour, one half ounce of butter cut in little pieces, one tablespoonful of sharp vinegar and one half teaspoonful of salt. Cover with a top crust, and bake in a moderate oven.

Dried-elderberry Pie.—Free from the stems nice ripe elderberries, pour over them boiling water to cover, and let stand half an hour; drain, and dry in a hot stove-closet. These will keep as well as any dried fruit. For one pie take one cupful of the dried berries and two cupfuls of water; let soak awhile, then boil an hour, and add one cupful of boiled cider (sharp), one half cupful each of molasses and sugar; bring to a boil, stir in two good tablespoonfuls of flour rubbed smooth in a little cold water, and boil three minutes. Let the mixture get perfectly cold before filling the crust. Bake between two crusts in a quick oven.

Elderberry and Grape Pie.—Stew and sift enough green grapes for one cupful of pulp; stir into it a mixture of one cupful of sugar and one tablespoonful of flour and a pinch of salt; next stir it into one and one half cupfuls of elderberries. Brush the under crust with white of egg, pour in the filling, cover with an upper crust, bake slowly, and serve while still slightly warm.

Elderberry and Apple Pie.—Line a deep plate with paste; cover the bottom with a thick layer of thinly sliced tart apples, add one and one half cupfuls of elderberries mixed with one cupful of granulated sugar, one tablespoonful of dry flour and a pinch of salt; add an upper crust, and bake in a moderate oven for about forty minutes.

Elder-flower Fritters.—Wash and drain; keep on ice until wanted as many cymes of freshly blossomed elder as will be needed. Dip them in fritter batter, shake lightly, and fry till crisp. Serve as soon as possible, as they spoil if allowed to droop. Arrange on a bed of elder-leaves, and dust thickly with powdered sugar.

Fritter Batter.—One egg, one cupful of milk, one cupful of flour and one teaspoonful of salt. Put all together in a deep, narrow bowl, and beat with a rotary egg-beater until smooth, but not frothed. When used for a sweet dish add a teaspoonful of sugar. This batter is used for Swedish timbals and wherever an article is to receive a very thin coating.

Elder-flower Vinegar.—Fill a wide-mouthed bottle with fresh elder-flowers gathered on a dry day and carefully picked from the stalks. Cover them with the best vinegar, and let steep fourteen days; then strain through a flannel jelly-bag, pour it into half-pint bottles, cork tightly, and keep in a dry place. If the essence is not as strong as desired, fill the bottle a second time with fresh flowers, pour on them the strained liquor, and let them steep fourteen days more; then strain through the jelly-bag, and preserve as directed.

All vinegar used to put up pickles or in extracting flavors should first be purified by being boiled and strained, after which the liquid will keep clear for a long time without spoiling if it is kept in well-corked bottles.

Elderberries may be used in fruit-puffs, berry griddle-cakes and steam pudding with most excellent results, and a very strong vinegar may also be made from them. The young, tender shoots are much relished as a pickle.

It has, indeed, been observed that the common elder-tree contains a whole magazine of healing remedies to rustic practitioners. A strong decoction made from the green inner bark is an excellent lotion for use in bathing and allaying inflammation, and the green inner bark when scraped and placed on a portion of the body which cold and inflammation have caused to cake will give relief; and if fresh bark is used as that which is on becomes dry, it will draw out all the fever. The juice of the inner bark is regarded as one of the best hydragogues.

Sweet elder-flowers (Sambucus Canadensis) are a valuable alternative, diuretic, mucus and glandular stimulant, excellent in eruptive, cutaneous and scrofulous diseases of children. Infusions of the flowers promote cuticular secretion and form a powerful sudorific, and if taken freely operate as a laxative. The flowers or inner bark of the root simmered in fresh butter make a good ointment for most cutaneous affections. The juice pressed from the ripe berries is called elder rob, and possesses mildly aperient, diuretic and sudorific properties. Virginia Reed.

CULTIVATING A HAPPY DISPOSITION

"People may joke as they will about the 'Don't Worry Clubs' and their doings," says one of the stanch supporters of this movement, but there is more in the idea than one realizes at first thought. It has been proven over and over again that even the most anxious of the worry-seekers may cultivate a contented, happy disposition if they go about it systematically.

It does not require much comparison of persons and positions to be convinced that the woman who is blessed with a happy disposition is in possession of that which brings into her life more of the actual sunshine of existence than untold gold could ever buy. The being who looks continually on the dark side, who regards life as one great tragedy, cannot enjoy even the boundless advantages that are within reach, because what is brightest and best is always to such a mind shadowed by the foreboding of coming evil.

The happy disposition enables its possessor to pick out the one fine strand of hope from the tangled mass of financial trouble, heartache and sundry other sorrows that fall to the lot of all who tread life's pathway. Nothing is so bad that it could not have been much worse. The most dire disaster has a bright side, and the buoyant disposition that absolutely frowns down and fights off the moody influence of trouble is a treasure beyond all power of pen to estimate.

A woman with a happy disposition is far more to a man as a wife than the woman with a great fortune, for riches take wings. Worldly prosperity has a way of altering, and if once money vanishes, the gloomy individual does naught but sit down and weep, having no word of encouragement for the husband, on whom the blow falls more heavily.

The happy-dispositioned wife will see a way out of the difficulty, or will accept matters as they are in a sweet spirit of cheerfulness that endows her husband with new zeal and causes him to look upon her as the guiding star of his existence. If you do not possess such a disposition, cultivate it as far as possible. It does no good to brood over one's troubles; it doesn't help matters in the least. One who goes about it with a determination to find bright rays in the clouds of trouble will soon discover them right at hand.

P. W. H.

PICKLES

Nearing the close of summer we must carefully begin to put up different kinds of pickles. It is well to leave them until the worst of the heat is past.

Peaches could be attended to now to advantage. Pare them, and lay in cold water until all are done, to keep them from turning dark. Prepare vinegar in proportion of one pound of sugar to two quarts of vinegar. Tie in cloths whole cinnamon, whole cloves (only a small quantity of the latter—say one teaspoonful to the above amount), and about five cents' worth of stick cinnamon. Cook the peaches in this until you can stick a broom-straw in them easily, then remove, and pour the heated vinegar over them, for four days; then put them in Mason jars, and seal.

Grapes can be kept in wide-mouthed stone jars, pouring the heated liquid over them for several days, and tying up with a cloth.

Watermelon-rind must be soaked first in weak salt-water over night, cooked in water until tender, then transferred to the vinegar syrup and cooked until very clear.

Very small cucumbers may be put into weak salt-water for a few hours, then heated in half vinegar and half water, with a few grape-leaves and a very small lump of alum in the kettle. When heated through put into quart glass jars, and into each jar put a spoonful of celery-seed, black and white mustard-seed, a tablespoonful of white sugar, a piece of ginger-root and a piece of red pepper. Fill the jars with hot vinegar, and seal them. The vinegar must not be allowed to boil. In this way the vinegar is not spoiled for any other use if you heat too much. Following this receipt makes a more pleasant-tasting pickle than when cloves and cinnamon are used.

Large pickles I usually put down in brine strong enough to hold up an egg. I put a weight on the plate that covers them, to keep them under. In the winter they can be prepared as needed, by soaking a day or night in cool water, and then treating them the same as the bottled pickles. One thing to remember is not to wash them so hard as to remove or bruise the little protuberances on them. This causes pickles to turn soft. They must be handled with the greatest care.

B. K.

ABOUT SERVING

"I'm to entertain a company of forty at supper next Thursday. None of your ice-and-wafer affairs, but a good, substantial lunch with coffee, meats, rolls, sandwiches, and so on. It is an anniversary affair; many of the guests come from a distance and will be hungry. My dining-room is small, so setting the table is out of the question. I am inexperienced at this sort of thing. Won't you give me some advice?"

So spoke a young housekeeper to an older friend.

"Yes; we women always have plenty of that commodity to spare. In the first place, may I ask if there is any particular reason why all the guests must be served at once?"

"Some go on trains both east and west, so all must be either served at one time or else must be grouped according to the time they have to leave; and one is not sure that congenial people would get together in an arbitrary arrangement like that."

"I believe I would risk it, and serve in two instalments of twenty each. If some should happen to be strangers to the rest, a little tact and planning on your part will make things easy for all of them."

"But my dining-room table cannot accommodate twenty people, even," said Mrs. Young.

"Nor did I expect it would. Make your table as small as possible; deck it in your prettiest damask and doilies, and put a plate of pickles, a cake or two and pretty floral decorations upon it. A bowl of roses is the prettiest decoration. Then put your chairs around three sides of the dining-room close against the wall. You will find twenty can easily be seated in that way. Everything can be brought in directly from the kitchen, and the dining-room table will not need to be disturbed."

"But won't it seem very stiff to have the chairs in straight rows with their backs against the wall?"

"Not more so than sitting down to a table. Don't crowd your chairs too closely together. You won't need to when you come to place it."

"How many waiters do I need?"

"Have too few rather than too many. They get in each other's way. Three spry girls ought to do it easily. One should stay in the kitchen to keep plates and coffee-cups replenished; one passes the plates to the guests, and follows immediately with refreshments, and a third looks after the dishes when plates are changed. I should say if any one of the three needs more help let her speak for herself, but not infringe on the territory of the other two. I was served to a delightful lunch not long ago that lost half its charm from the overabundance of nervous women dodging each other and interfering with each other's work."

"I suppose I ought to use my best napkins, but I don't want to."

"Then don't. You can get Japanese napkins in pure white that look genteel and answer every purpose. It will save you all that washing and nobody will think any the less of you."

"Your advice is good, and though you little expected it, I know it will be followed to the letter. This shall be a happy, informal occasion if making the work easier and the serving of refreshments a simpler process than is sometimes the case can bring about that desirable end."

Bertha K. Brown.

A GREATER BARGAIN THAN EVER

THE price of silver-plated ware is steadily advancing, and yet we are furnishing this ware at the former prices. At these prices it is the biggest bargain at present offered in high-grade silver-plated ware. This ware can be used in cooking, eating and medicines the same as solid silver; it will not, cannot turn brassy, corrode or rust. In beauty and finish it is perfect. The only way in which we are able to offer this ware at such bargains is that we have it manufactured especially for us in enormous quantities, and handle it entirely without profit to get subscriptions and clubs. All of the ware is full regulation size.

Pure Coin-silver Plating......

The base of this ware, except the table-knives, is solid nickel-silver metal, which is the best white metal known for the base of silver-plated ware, because it is so hard and so white that it will never change color and will wear for a lifetime. The base of all this silverware is plated with the full STANDARD amount of pure coin-silver.

The base of the table-knives is fine steel highly polished. They are first plated with nickel-silver, which is as hard as steel, then plated with 12 penny-weights of coin-silver. There are no better silver-plated knives on the market. They are fully warranted.

Will Stand Any Test....

To test this silverware use acids or a file. If not found to be plated with the full STANDARD amount of pure coin-silver and the base solid white metal, and exactly as described in every other particular, we will refund your money and make you a present of the subscription. If returned to us we will replace free of charge any piece of this ware damaged in making the test.

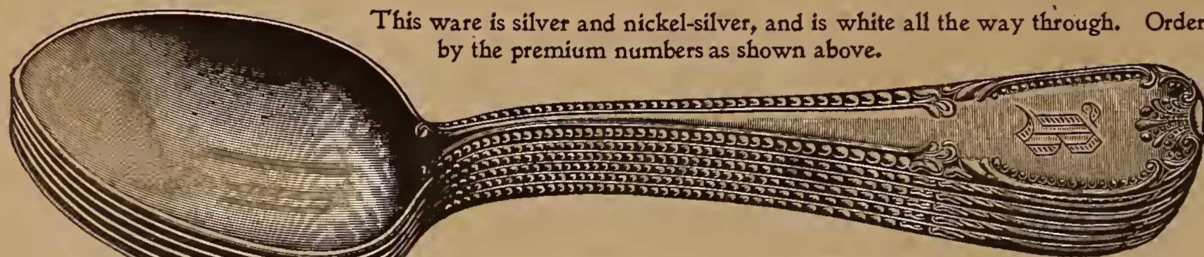
FROM MANUFACTURER TO USER

There is no middleman's profit added to the price of this ware, as we are satisfied to handle it without profit to get subscriptions and clubs, and pass it from the manufacturer to the user at manufacturer's cost plus the expense of postage and wrapping. In this way our subscribers get this ware at less than one half the usual price for a similar grade of goods. It is of first-class quality.

WEAR PROVES ITS QUALITY

We have handled this ware for years and have sent it into many thousands of homes, where it is now rendering general satisfaction. Hundreds of thousands of pieces of it have been sent out, covered by our guarantee, and complaints are practically unknown. We have thousands of testimonials as to its wearing qualities. A trial order is sure to be followed by others until you get the whole set.

This ware is silver and nickel-silver, and is white all the way through. Order by the premium numbers as shown above.



This cut shows the ACTUAL SIZE of the Teaspoons, all the other ware being large in proportion.

ANY INITIAL LETTER Each piece of this ware (except the knives) engraved free of charge with an initial letter in Old English. Only one letter will be engraved on each piece. State your choice.

GUARANTEE We absolutely guarantee every piece of this ware to be exactly as it is described and to give full and entire satisfaction or money cheerfully refunded.

PREMIUM OFFERS

We will send the Farm and Fireside one year and the Silverware at these prices:

The Farm and Fireside 1 year and a Set of 6 Teaspoons for	$ .75
The Farm and Fireside 1 year and a Set of 6 Forks for	1.25
The Farm and Fireside 1 year and a Set of 6 Tablespoons for	1.25
The Farm and Fireside 1 year and a Set of 6 Knives for	1.75
The Farm and Fireside 1 year and a Set of 6 Coffee-spoons for	.75
The Farm and Fireside 1 year and a Set of 6 Dessert-spoons for	1.00
The Farm and Fireside 1 year and a Set of 6 Dessert-forks for	1.00
The Farm and Fireside 1 year and Berry-spoon for	.65
The Farm and Fireside 1 year and Pie-knife for	.65
The Farm and Fireside 1 year and Gravy-ladle for	.65
The Farm and Fireside 1 year and Child's Set (Knife, Fork and Spoon) for	.60
The Farm and Fireside 1 year and Butter-knife and Sugar-shell (both)	.60

(When any one of the above offers is accepted the club-raiser may have either the regular cash commission or the name may be counted in a club)

SILVERWARE FREE

For Clubs of Subscriptions to the Farm and Fireside

Set of 6 Teaspoons given free for a club of four subscriptions
Set of 6 Forks given free for a club of six subscriptions
Set of 6 Tablespoons given free for a club of six subscriptions
Set of 6 Knives given free for a club of twelve subscriptions
Set of 6 After-dinner Coffee-spoons given free for a club of four subscriptions
Set of 6 Dessert-spoons given free for a club of six subscriptions
Set of 6 Dessert-forks given free for a club of six subscriptions
One Berry-spoon given free for a club of four subscriptions
One Pie-knife given free for a club of four subscriptions
One Gravy-ladle given free for a club of four subscriptions
One Child's Set (Knife, Fork and Spoon) given free for a club of four subscriptions
Sugar-shell and Butter-knife (both) given free for a club of four subscriptions

(The following note gives instructions how to take subscriptions in clubs)

NOTE—Thirty-five cents is the clubbing price for yearly subscriptions to the Farm and Fireside without a premium to the subscriber. And members of clubs may accept *any* of our premium offers at the advertised prices and their names can be counted in clubs (unless otherwise stated in the advertisement). *RENEWALS and new names, including a club-raiser's own subscription, can be counted in clubs. No reduction allowed in the clubbing prices.*

Postage or expressage paid by us in each case

Address FARM AND FIRESIDE, Springfield, Ohio

No. 3595.—LADIES' FANCY WAIST. 10c. Sizes, 32, 34, 36, 38 and 40 inches bust.

40 Cent Patterns for 10 Cents

We Will Send Any TWO PATTERNS, and This Paper One Year, for 40 CENTS

(When this offer is accepted the club-raiser may have either the regular cash commission or the name may be counted in a club)

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only ***10 Cents Each.***

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, *with a picture of the garment to go by.* These patterns are complete in every particular, there being a *separate* pattern for *every single piece* of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

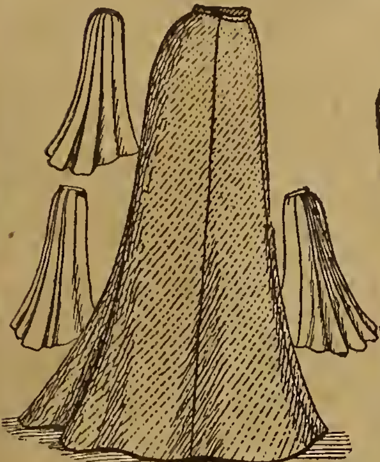
To get BUST and BREAST measure, put the tape-measure ALL of the way around the body, over the dress, close under the arms.

Special price of each pattern 10 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

FREE We will give any THREE of these patterns for TWO yearly subscriptions to Farm and Fireside **FREE**

Address FARM AND FIRESIDE, Springfield, Ohio



No. 3581.—LADIES' SIX-GORED SKIRT. 11 cents. Sizes, 22, 24, 26, 28 and 30 inches waist.

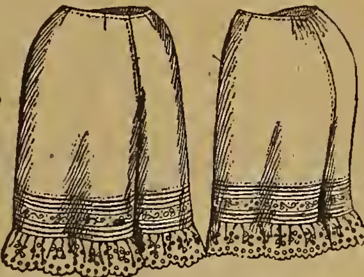
No. 3578.—CHILD'S REEFER. 10 cents. Sizes, 2, 4, 6 and 8 years.

No. 3587.—MISSES' FIVE-GORED SKIRT. 11 cents. Sizes, 12, 14 and 16 years.

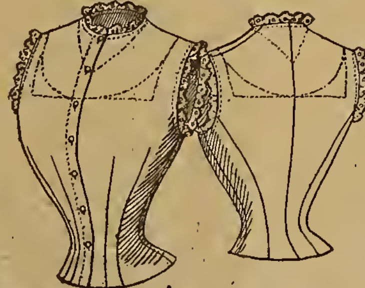
No. 3582.—LADIES' WRAPPER. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

No. 3576.—CHILD'S DRESS. 10 cents. Sizes, 1, 2, 4 and 6 years.

No. 3579.—FOUR-GORED SKIRT. 10c. Sizes, 6, 8, 10 and 12 years.



No. 3580.—LADIES' DRAWERS. 10c. Sizes, 22, 24, 26, 28, 30 and 32 inches waist.



No. 3571.—CORSET-COVER. 10c. Sizes, 32, 34, 36, 38, 40, 42 and 44 inches bust.

No. 3577.—LADIES' FIVE-GORED SKIRT. 11 cents. Sizes, 22, 24, 26, 28 and 30 inches waist.

No. 3591.—LADIES' SHIRT-WAIST. 10c. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

No. 3590.—GIRLS' GUIMPE DRESS. 10c. Sizes, 4, 6 and 8 years.

No. 3572.—LADIES' SHIRT-WAIST. 10c. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

No. 3575.—GIRLS' DRESS. 10 cents. Sizes, 4, 6 and 8 years.

No. 3574.—LADIES' FIVE-GORED SKIRT. 11c. Sizes, 22, 24, 26, 28, 30 and 32 inches waist.

No. 3584.—LADIES' WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.

No. 3593.—MISSES' ETON JACKET. 10c. Sizes, 12, 14 and 16 years.

No. 3573.—LADIES' SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

No. 3588.—LADIES' SHIRT-WAIST. 10c. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

No. 3583.—LADIES' WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches buts.

FARM SELECTIONS

THE ORIGIN OF SEEDLESS-ORANGE CULTURE IN THE UNITED STATES

The introduction into the United States of the seedless orange, the culture of which has assumed such large proportions on the Pacific coast, was primarily due to an American woman. Traveling in the province of Bahia, Brazil, in 1868, she incidentally mentioned in a letter to a friend in the United States, Horace Capron, the then Commissioner of Agriculture, that the oranges of Bahia were of superior quality to those raised in the United States. No chance expression of taste was probably ever fraught with more magnificent results. Mr. William Saunders, then, as now, in charge of the gardens and grounds of the Department of Agriculture, had already devoted some attention to the improvement of orange culture in the United States, and had introduced a few new varieties from foreign countries. This letter being brought to his attention suggested the possibility of a new find in the field of orange culture. A request was sent for specimens for propagating purposes. A box of cuttings from trees was returned, which unfortunately proved worthless. A specific order was then forwarded for plants, and in 1870 a small shipment of not more than twelve young trees, all of the same variety and well packed in moss and clay, arrived in Washington in fairly good condition. This was the original stock from which have sprung all the far-famed orange-groves producing what is now commercially known as the "Riverside navel (or seedless) orange" of southern California. All the twelve plants were planted in the department grounds, and thrived. At the proper time buds from these twelve trees were grafted upon small orange-plants then under cultivation at the department, and the process of propagation repeated at proper intervals. As the supply increased hundreds of the young plants were distributed through Florida and California, at first under the name of the "Bahia orange," afterward as the "Washington navel." For some undiscovered reason conditions in Florida proved unfavorable to the productiveness of the trees, but the development and success of their culture in California constitute a subject of unusual interest.

The distribution of this new variety of orange by the department attracted no attention in California until the winter of 1878-79, and the great interest then aroused was centered upon two trees which that season came into bearing on the place of Mr. Horatio Tibbetts, of Riverside. The first crop consisted of only sixteen oranges, but it was of peculiar importance as being the first crop of seedless oranges ever produced in North America. The new variety attracted wide-spread attention among the fruit-growers and ranchmen of southern California, and Mr. Tibbetts' orange-trees immediately became famous. In the following year the trees yielded several dozens of oranges, and people who had been growing the old varieties traveled hundreds of miles to see them in fruitage. Few believed that the trees were other than a freak of nature; and the doubt was almost universal whether a seedless fruit could be propagated to a point of profitable production.

After the California trees came into bearing the demands upon the Department of Agriculture for orange-plants of the new variety soon exceeded all possibilities of supply. The Tibbetts trees were the only other source from which a supply of buds could be obtained with confidence. It seems that the young plants distributed in earlier years by the department had been lost sight of. Buds from the Tibbetts trees came into such demand that they are said to have sold for five dollars a dozen. In 1884 the buds taken from the two trees brought $1,500. In a year or two seedling trees that had been grafted with buds from the Tibbetts trees became themselves productive of thousands of buds that were used for propagation; and thus was developed the culture of the variety of seedless, or navel, orange in southern California.—The Crop Reporter.

TILE-DRAINING—THE FOUNDATION

If I were intending to buy a farm that had a heavy soil, a clay or clay loam, such as are most benefited by tile-draining, and if two farms were offered me exactly alike in other respects, but one thoroughly tile-drained and the other not, with a price of fifty dollars an acre on the one not drained and eighty dollars on the other, I would unhesitatingly take the other. I would do it if I had but one or two thousand to pay down and must go in debt for the rest, because I should expect to pay out quicker on the more costly farm and then have something better when I get through.

But this statement needs some qualifying. It goes without saying that if I bought such a farm, even to keep stock on, to make that a leading feature, and if the land was reasonably adapted for tillage—that is, was not hilly—that I should want, in Ohio say, to grow clover, wheat and corn. And if intending to put in such crops I should want conditions right for raising a large paying crop. This is the way I feel after many years' experience in draining and with drained land, and after hearing much from others who have drained. Again, if I bought a clay farm I would run in debt for money to drain it all thoroughly as far as it was to be plowed, and as fast as it was plowed. I would not break up a field without first draining it. As my friend William Strong says, "I would plant tiles before planting a crop every time." I am not sort of on the fence in this matter, or half-hearted, but I would do it or let the farm alone. I would do it with a feeling of more certainty that I would get my pay than I had when I gave the money for the land itself. As one good friend expressed it at an institute last winter, "Good farming is thrown away on wet land." It is too much a matter of luck. And still when I am asked, as I often am, whether I would advise any one to go in debt for tiles, I dare not say yes, because so much depends upon the man, whether he will follow up his draining with good farming that will bring the money out of his venture; and, again, whether the draining will be thoroughly well done, or whether it will soon be practically of little value. Tile-draining is simply the foundation, next to the farm itself, of all good profitable farming on land that needs it. I wish I could grind this into every reader who has such land.—T. B. Terry, in Our Farming.

TO MAKE AN UNPRODUCTIVE TREE BEAR

The plan which I have followed with success and without permanent injury is girdling in early summer-time. This should be done in June. A single cut may be made with a knife through the bark, entirely around the trunk at any convenient place; or two or more such cuts may be made. If a ring of bark several inches wide is peeled off entirely around the trunk of an apple or pear tree at this time of year no harm will follow, for a new bark will soon form over the wound. Another very good plan is to remove long strips of bark about two inches wide, pointed at both ends, and leaving spaces of bark of about the same width.

Any of these will cause a checking of the flow of sap and an unusual formation of fruit-buds instead of an excess of wood-buds. The trees of the stone-fruits are much more sensitive to injury and will not safely endure such treatment as has been described; nor do they usually need anything to force them into bearing.—Prof. VanDeman, in Vick's Magazine.

FARM WAGON ONLY $21.95

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold for only $21.95.

This wagon is made of the best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

BUCKEYE STEEL FRAME DISC GRAIN DRILL

In the manufacture of this *new Disc Drill* we have applied the well known *advantages* of the disc principle to a grain drill. The fact that it bears the stamp "BUCKEYE" will prove a sufficient guarantee of its quality. It is the equal in construction of our other well known and popular drills. It is *equipped with* the same *Buckeye Double Run Force Feed*, and *New Buckeye Speed Device*, for changing feed, that is found on our other drills.

The Advantages of the disc when applied to a drill are the complete opening of the furrow for receiving the seed. The absolute freedom from clogging; the disc cuts through weeds, corn stalks, stubble, etc. They are somewhat lighter in draft also. Ours are equipped with either chain coverers or spring press wheel coverers. *This is a perfect Disc Drill and will meet every requisite of such a machine.* Don't buy until you secure our catalogue and prices. *Sent free.* Write for them at once.

P. P. MAST & CO. 17 Canal St., SPRINGFIELD, OHIO. Branch House, Philadelphia, Pa.

"Kilfly"

Protects Cows and Horses from torture of Flies. A liquid mixture of untold value. Absolutely harmless to man or beast.

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EVERY DAY IN THE YEAR. MOST MEN will pay $125 for a twine binder or a corn binder, machines that can only be used a few days in the entire year, and think nothing of it. The Kemp Manure Spreader costs much less than that, and can be used successfully every day in the year. It will earn the interest on the money every day it is used. Spreads all kinds of fine and coarse manure, wood ashes, lime, salt, etc. Spreads broadcast or drills in the row. We make a special drilling attachment for this machine, which is of unusual value to tobacco and cotton planters and southern truck farmers. Splendid new catalogue FREE. Tells all about it.

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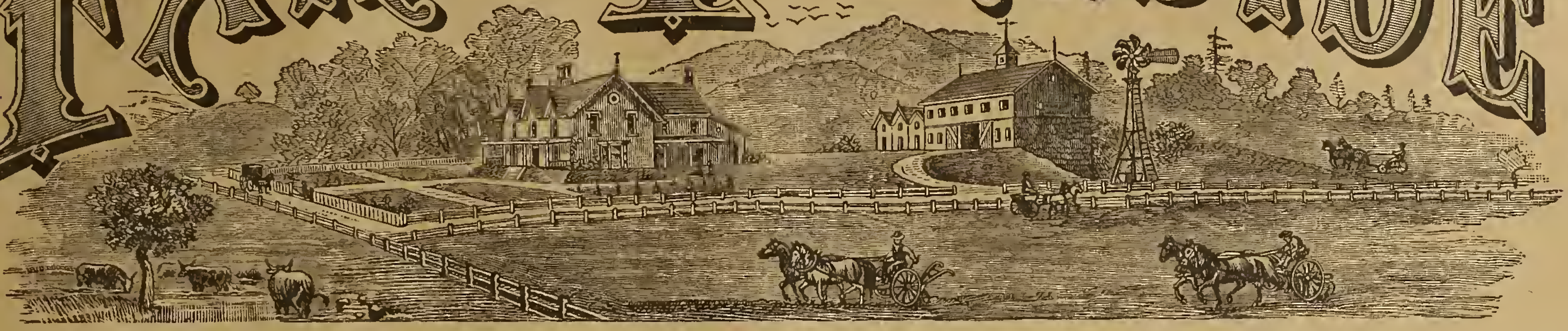
of Agriculture.

FARM AND FIRESIDE



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A WESTERN COOKING-SCHOOL

BY H. A. CRAFTS

Co-education was one of the fundamental principles upon which the State Agricultural College of Colorado was organized. The young woman, in common with the young man, was given an opportunity to study the classics or take a course in agriculture, horticulture, chemistry, mechanical engineering, etc., but there was no course whereby she might better fit herself for that peculiar sphere which by the natural order of things she is destined to occupy—that of home-making and housekeeping. Yet it seems to be predestined that practical education of women shall languish, while the more ornamental branches shall be fostered, until the ranks of professional and clerical life shall be filled to overflowing. But the Colorado institution, although somewhat tardy in its action in this respect, at last awakened to the importance of establishing a department that should teach young women some of the more practical things of life. The college was opened for instruction in 1880, but it was not until 1894 that the department of domestic science was established, though the friends of that line of instruction had been urging their claims before the board of directors for some time previously. But in the brief period of its existence it has gained a firm footing not only among the college departments, but in general public estimation. It has not only inculcated among the young women students knowledge of inestimable value, but has awakened in the public mind a keen interest in practical education. Largely through its influence the attendance of young women at the institution has doubled since its establishment.

Kitchen Department—Domestic Science

Upon the completion of the new horticultural hall the old horticultural hall was given up to the department of domestic economy; and although the building was sufficiently large to accommodate the earlier classes, the department has really grown to such proportions that more room is needed. The building stands at the very entrance to the campus. It is of one story and basement. The quarters are neat and cozy, but could no doubt be improved upon by having designs drawn with special reference to the course of studies to be pursued. To the right of the entrance is the office, or reception-room, ornamented with mural adornments and tastefully carpeted. Hanging on one wall is an oil-painting representing a landscape, painted and presented to the department by Charles Partridge Adams, one of the leading landscape-painters of the country. Just in the rear of the office is the model bedroom, whose walls are also hung with some beautiful water-colors from the easel of Mr. Adams. Here the young women are given instructions in the art of bed-making, arrangement and care of sleeping-rooms, etc. In the main corridor of the building stands a large show-case, filled with samples of fine needlework performed by members of the class under department instruction. The works are principally in mulls and laces. Some fine specimens of organdie tucking and cambric embroidery are also exhibited.

In the rear part of the building are the bath-rooms, a model-closet and a fitting-room. In the southeast corner of the building is a large and sunny room which is used as a class-room, dining-room and serving-room combined. This is supplied with tables, sewing-machines and combination china-closets. The closets are filled with fine

[CONCLUDED ON PAGE 6 OF THIS ISSUE]

A Colorado Cooking-class

FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL & KIRKPATRICK CO.

OFFICES:

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WITH THE VANGUARD

In an interesting article on Peking in a recent number of "Collier's" Hon. Charles Denby, former Minister to China, says:

"It may be disagreeable to the Administration to engage in what may prove a war of some magnitude, but we cannot abandon our fellow-citizens who are in China under the stipulations of the treaties. Sentimentalism must give way to common sense. If a government does not protect its people, what does it do except collect taxes? We have never taken any portion of China for our own. That same position should be now maintained. While military co-operation cannot, probably, be avoided, it should be understood that our troops are in China for the sole purpose of protecting our people. I have not space to forecast the questions that may come up when China is quieted.

"A residence under the shadow of the imperial city was thought to be the safest place in the empire. In the summer nearly all the foreign residents scattered in the country, and passed several months ten, fifteen or twenty miles from the capital, or at the watering-place called Peitaho, with not the least fear or dread of attack. For nearly forty years no attack came. The women and the children roamed unattended all over the country. There were picnics in the old temples, on the hills and beside the streams, and idle summer life went on on the borders of the great plain in which dwelt one hundred millions of people. My family and I spent twelve summers at the American temple twelve miles from Peking. The doors were rarely locked. No precautions were taken. We lived with the denizens of the temple, and the country people. We bought their vegetables, eggs, chickens, ducks, fruits, meats, and all that they had to sell. When there was sickness in the neighborhood we did what we could to alleviate it. Many a dose of quinine was administered by us. Unattended except by a single mafoo we rode every day for miles through the villages and fields. We exercised some charity among the poor, and we distributed boxes of American seeds among the farmers. Everybody knew us, and not once did we receive the slightest insult or injury. Perhaps I ought to mention that the Russian Minister, who was sojourning at my temple while his legation was being built, was robbed of some money, but it was strongly suspected at the time that the thief was one of his own servants.

"It is all changed now. These people are savages. It is certain that many men, perhaps millions, are banded together with the fixed purpose to drive out the foreigners. It seems also to be sure that the actual government has joined with the rioters to accomplish the same end. It is an uprisal of the dark-skinned man against the white man. It is scarcely worth while to inquire who is to blame. I could myself, from my own knowledge, point out various cases in which rank injustice has been done to the Chinaman, as it has been done to the African and the Indian, but in this emergency there is no place for recrimination. We are confronted with the most dangerous condition of things that ever existed in the Far East. Self-preservation becomes the supreme duty of the hour. On the result not only the wealth which has been accumulated slowly for nearly a century is dependent, but also the lives of many white men and women are in danger. Banks, railroads, steamboats, mills, merchandise, the myriad stores of trade, hang on the issue, and these are as nothing compared with the fruition of gigantic hopes of a boundless commerce between our continent and Asia. In this contest between an enlightened civilization and the reaction of desperate barbarism the wise, the prudent, the progressive man will be found in alliance with his own race. If our Ambassadors and their suites have been murdered the crime must be punished. The sinking of the Maine impelled us to war. Dreadful as that crime was, it pales before Chinese treachery if any government at Peking aided and assisted in wholesale murder.

"We never certainly knew that Spain ordered the destruction of the Maine, but if sixteen hundred white people have been slain at Peking there is no doubt that the persons controlling the government actively assisted in the stupendous crime. That crime must be punished. The Emperor, the Empress, the princes and the nobles must be put aside. Better partition than wholesale murder; but partition need not come. Radical measures must be adopted. There must be a new dynasty—Chinese this time. The Manchu, with his tyranny and his vices, must be driven out, and we must help to do it. Therein comes the rub for us. In the face of imminent peril and overwhelming duty traditious must give way, as they have often done in our history. It is delicious to live always away from foreign complications, unembarrassed by the world's doings; but greatness brings with it its overpowering obligations. Every day the railroad kills men—to-day it killed more than a hundred. Still the railroad must survive. And so, though men will be killed, and will die of disease on the flat plains between Tien-Tsin and the capital, still they must go thither. To stand entirely aloof from the European powers would destroy our influence. If we go in with them in the effort to restore order we may be able to exercise a great influence in determining the destiny of China. What, then, should we ask? First, protection to our merchants and missionaries, and then the autonomy of the empire. It is sad to reflect that practically we had all this from 1843 to 1900. Riots there were, but the great work of introducing modern civilization into China went on. On whom will history lay the blame that the nascent progress of the Orient has been checked, and savagery has resumed its sway? I will not undertake to answer that question now. When the time comes to consider it in the reconstruction of the broken columns of the most ancient empire in the world let it be put and answered, so that old errors may not be committed again. For the present there is no hope in any policy except the exercise of force which will overwhelm the treacherous government and its brutal allies in a common destruction.

"Whether the outrages culminated in murder or not the situation will not be greatly changed. The foreign powers must step in and restore order in China. A new dynasty must be put on the throne. I venture to predict that it will not be many months before peace will prevail, and the merchant and the missionary will again take up the tangled skeins of their former occupations."

The following passages are from "The Philippines: Our Approach to Asia," by Hon. John Barrett, in the July 28th number of "Harper's Weekly:"

"The crisis in China demonstrates beyond question the importance of the Philippines. It proves their strategic and political value. The readiness and dispatch with which the United States is able in a supreme hour of peril to send ships, marines and troops to protect and rescue American lives and property have touched the pride of the nation. Only the lightning development and avalanche force of the Chinese hordes have prevented the complete success of these efforts.

"Instead of depending upon the charity of European powers and being treated with patronizing kindness, we have been able to stand on our own resources as a first-class power. We are commanding the evident respect of other nations. We are treated as their peer. We are seeing our soldiers and ships occupying by far the most dangerous and the most responsible places in the line of advance and defense.

"Those of us who, from long residence in the Far East and through acquaintance with the development of events in the Philippines, are convinced by personal observation and experience that America's position in these islands is the unavoidable result of meeting responsibilities that unexpectedly grew out of the war with Spain, likewise from familiarity with conditions in China, not only recognize the absolute necessity of the present action of the government, but appreciate the strategical value of our Philippine base.

"Let us in confirmation study the map of transpacific seas and countries. It is both fascinating and instructive. All maps of important lands are interesting to the student of world progress, but none is more surprising than that of the incomparable broken coast that reaches from Australia to Siberia, from Melbourne to Vladivostok. Its supreme revelation to the man who has not before investigated these Asian-Pacific shores is this: The Philippines are the geographical and strategical center of the Asiatic and Australasian Pacific coast-line that has an unrivaled extent of 6,000 miles, has debouching upon it a population of over 850,000,000, including India, and supports already a foreign commerce exceeding $2,000,000,000 per annum.

"From this undeniable premise we draw another conclusion which has even a more direct bearing upon the value of the islands to the United States: The Philippines, being the geographical and strategical center by reason of physical location, will become under American influence the commercial center of the transpacific coast, seas and millions of people.

"A few statistical facts about the environment of the Philippines will help us to appreciate their importance. We are all now closely watching China, only 600 miles from our American territory. What of her future? She has 4,000,000 square miles, 400,000,000 people, and only 400 miles of railroads! She needs in the near future 40,000 miles. What opportunities for American manufacturers, for American capital, and for American engineers, and for American labor at home providing what is wanted in China! China's foreign trade in 1899 under unfavorable conditions was $333,000,000, an increase of 40 per cent over 1898. This was less than $1 a head of the population, but when the empire is opened to the world, the government recognized, and general material progress inaugurated, the trade should develop to at least $5 a head. That of Japan has grown in the short period of thirty years from $1 to over $6 a head. That of America is about $25. In all my estimates of foreign trade I include, of course, both exports and imports. Exchange is the life of commerce. A nation or people cannot go on buying unless it also develops a large selling capacity.

"If we multiply China's population of 400,000,000 by $5 we have a reasonable possibility of $2,000,000,000 per annum for that country alone. We can never afford to retreat from such possibilities. Our trade exchange with China now amounts, including Hong-Kong, to nearly $43,000,000, which is about 12 per cent of the total, and 100 per cent increase over that of ten years ago.

"Of the Philippines themselves, those of us who have traveled through them and other Asiatic lands say without exception that in proportion to area and population they surpass the latter in marvelous fertility of soil, in variety of marketable staple products, in wonderful intermingling of well-watered valleys and high, forested mountains, and in natural resources awaiting legitimate exploitation and development. The islands will show in another decade and a half an annual trade, under the influence of American control, enterprise and capital, valued at $150,000,000. Even with Spain in charge they passed the $33,000,000 mark. American capital will also find a ready and safe investment of $200,000,000 in railroads, industries, mines and general development during the next five years.

"When we consider that the Dutch have converted Java, which is not as resourceful as Luzon, nor as large, into a garden supporting 20,000,000 people, and an annual foreign trade of $200,000,000, we cannot admit that Americans are unable to equal this record in the Philippines. If the British have taken Burma, which is even larger but less resourceful than the Philippines, and established in fifteen years perfect peace, contentment and prosperity among 10,000,000 people not unlike the Filipinos, and an annual trade of $150,000,000, we can more than surpass their record in the Philippines, or I mistake the courage and capabilities of Americans.

"The long and short of the whole Philippine situation, viewed in its moral light, which is of far more consequence than the material side, is this: The United States is in sovereign control of the Philippine Islands as a direct and honorable result of meeting and mastering the unavoidable responsibility that grew unexpectedly out of the war with Spain. The sooner every American realizes this the better. History will confirm it beyond a doubt."

The early fall will witness a striking experiment in Cuba," says "Bradstreet's." "It is now understood that September 22d has been fixed upon as the date for holding elections throughout the island for delegates to a constitutional convention, to be called to formulate an organic law providing an independent government for the inhabitants of the island. If this plan is carried out it will mean that while the electoral campaign in the United States is at its height the question as to the form of government to be established for Cuba will be in process of solution in that island. Of course, whatever form of government shall be adopted by the people will not be of itself a finality. It must be made satisfactory to the government of the United States or it will not be put into force. The people of the United States, through their constituted authorities, reserve the right to decide whether the new constitution is or is not republican in form, and until it satisfies that requirement it cannot be regarded as having any basis of validity. Of course, after having guaranteed to the people of Cuba a stable government, the United States authorities cannot allow a government to be set up which is not stable. Neither can they permit the organization of a system of government which would give the inhabitants of the island or their representatives free rights of international intercourse, which in their exercise might seriously embarrass the government of the United States.

"The island itself appears to be in a condition most favorable for the experiment about to be made. It is in a condition of prosperity, compared with its situation during recent years. The war-worn land is enjoying the blessings of tranquillity. The confidence of the people is increasing, and the agriculture of the island is showing decided signs of improvement. The cultivated area is about double what it was last year. The small farms in particular are receiving the attention of the inhabitants. The railroads are being put into shape to care for the increased business which is expected to fall to their share. From a sanitary point of view, the island may be said to have gone through a revolutionizing process. The yellow fever, so long a scourge of the people, has been in great part eradicated, and it no longer strikes the imagination as a dread visitation whose ravages cannot be controlled or stayed. As for the people themselves, such experience as they have been permitted to have in the exercise of the elective franchise has been of a kind to indicate that they might be trusted with a larger share of self-government than they have yet enjoyed. Altogether the new experiment will be made under favoring conditions, the one great drawback being the lack of discipline under a self-governing system."

Legal Murders In most murder trials the evidence is wholly circumstantial, and in many the verdict depends largely on the testimony of experts—medical experts, chemical experts, handwriting experts, etc. Any one who watches the proceeding closely and impartially during a few of such trials will soon begin to suspect that such experts are for sale to the highest bidder, and that some of them stand ready with any kind of opinion that may be desired at one hundred dollars a day. I have not the least doubt that numerous legal murders have been committed, and are yet being committed right along. Other people are coming over to that view more and more, and for that reason the sentiment in favor of the abolishment of capital punishment, or its restriction to exceptional cases, is steadily growing. In New York state, for instance, this abolishment will soon be a fact.

* * *

Only a few weeks ago saw the end of one of the most remarkable murder trials that ever took place in western New York. This "cause celibre" had been the center of interest and the main topic of conversation in the whole state for many weeks. A young wife died some three years ago, leaving a will which gave to her surviving husband (a regular scalawag, by the way) her large property. The doctors gave a certificate of death by "heart failure." Later on somebody suspected her husband of having killed her with prussic acid; the body was taken up, a case made out against the young man, and with the help of chemical and medical experts, the display of much rhetoric, and at an expense to the county of about $40,000, the prosecution managed to make twelve men agree to a verdict of murder in the first degree. Fortunately for the young man, he found a good attorney to carry on his case, and while he had to remain for about two years under the shadow of the electric chair, the case being carried from court to court, a supreme-court judge finally granted him a second trial just a day or two before the sentence of electrocution was to be carried out. The prosecution again made every effort to convict, brought out just as much evidence as in the first trial, spent another $15,000 or more, but the defense was able to discredit all this evidence so successfully that twelve men quickly agreed on a verdict of acquittal.

* * *

This case had its lessons, even without considering any of the many interesting minor details. In the first place, it gave an instance of the perverted ideas that a large portion of our district attorneys have of their office and its duties. Their chief aim seems to be to convict every one accused of a crime, and they exert all their energies and abilities and the whole resources of the county to accomplish that object. That seems to me a great wrong to the accused, who is supposed to be innocent until his guilt is proven. It should be done by fair means, by evidence, not by manufactured testimony, low tricks, a persuasive tongue and a large expenditure of money. If there is not enough plain evidence to convict, conviction should not be secured by means of the persuasive tongue of a high-priced and brilliant lawyer. It is an unpardonable wrong for a district attorney to bolster up a weak case by saddling an expense of $50,000 on his county for suspicious expert evidence and the persuasive oratory of a celebrated attorney. A conviction secured by any means except plain evidence stamps the district attorney a murderer, and even if the defendant secures an acquittal it is a grievous wrong done him by forcing him to offset the people's exertions and to spend large sums of money for expert testimony and high-priced lawyers to present his side. No district attorney has any business to try to convict a person of a crime by means of that kind, when the evidence itself leaves so much room for doubting the defendant's guilt that the prosecution needs unusual assistance to coax a verdict of guilty out of the jury-box.

* * *

Expert Evidence And what is all this expert evidence worth? Next to nothing; although the county in the case in question had to pay big sums of money for it. I believe I have a pretty good idea of what the ordinary physicians know. Much of it is guesswork; much of it is based on earlier teachings and things that were once or are now accepted as scientific facts, but which have been or may yet be proved to be scientific errors. One doctor will swear to one thing, another will directly contradict him and support his views with his oath. The same can be said of chemical experts, handwriting experts, etc. Their doctrines and statements do not agree. Indeed, disagreement is the rule with them. I find that even the experts in agricultural chemistry are often a good ways apart, and sometimes wrong. Agricultural and horticultural experts are more in accord and agreement than any others. In the second trial of the before-mentioned celebrated case the medical experts made a sorry spectacle of themselves, and they seemed to be the real parties on trial, much more so than the accused himself. They had treated and maltreated the allegedly murdered wife for a long time before her death, administered quantities of poisons, performed savage operations, etc., then gave a certificate of natural death, and finally turned around and tried to swear the defendant's life away. They, if anybody, seemed to be guilty of the murder.

* * *

Old Prejudices Nobody stands so high that he is entirely free from the danger of having peculiar circumstances form a combination which will point to him as being guilty of a crime. As an innocent person, I would hate to have my life or reputation made dependent on expert testimony. Besides, there is an inclination in the majority of people to believe the bad things said of another even more quickly than the good things. All one has to do is to show that a person is benefited by committing a crime, and that it was possible that he might have committed it, and many people will at once believe him guilty. His inclination has convicted many innocent people and been the cause of hundreds of legal murders. Old prejudices born in ignorance, early associations, superstition, are also very powerful; and we should not forget that it is not so many years ago when witches were burnt at the stake, confessions extorted by tortures, and even petty violations of the law punished by hanging. Old prejudices cling to people like burdocks to a horse's tail, and few people, even in the present enlightened age, are entirely free from them. As an innocent defendant, I would want a jury composed of bright, broad-minded people; and I would fight with all my might against the admission to the jury-box of any backwoodsman with prejudices clinging to him more thickly and tightly than burdocks to the ram's fleece. We have been making rapid progress in civilization, but plenty of old prejudices still live, and many innocent people will yet be convicted of crime. The tendency of the times, however, is toward a better state of affairs, a moderation of former severe views about crimes and punishment, and a steady growth of the sentiment that the object of prosecuting crime is not so much the punishment of the criminal as the prevention of crime itself.

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Rabbit Literature Miss J. W., of Kansas, asks me where she can procure the best literature on Belgian hares. The only American booklet on the subject that I am acquainted with is W. N. Richardson's "The Rabbit," published by Clarence C. DePuy, in Syracuse, N. Y., price 25 cents; a small book of some forty pages, and good as far as it goes. Most agricultural papers at the present time publish frequent articles on this subject, but they are largely consisting of arguments for and against the animal. When I read our friend Fred Grundy's warning against the fad I had to exclaim, with Caesar when struck by the daggers of the confederates, and seeing his friend Brutus among them, "E tu, Brute (You, too, Brutus)?" But he is right in warning farmers against the expectations of extravagant profits. I think I know what I am talking about, after having kept Belgian hares for pleasure and profit for the past twenty-eight years or so; and I do say that it is a pleasant fad, an interesting animal, and profitable if you make it so. Some people dispute that the meat is salable. Mr. Nicholls sells his surplus, or meat, stock right to his own townspeople at one dollar a pair for half-grown rabbits dressed, and he has not enough to fill the demand. I know that I have not rabbits enough to fill the demand for my own table. And as for the flavor! Give me the rabbit rather than the average fowl every time.

T. Greiner.

SALIENT FARM NOTES

Fair-time Not long ago I asked a rather philosophical young American, about eleven years of age, what portions of the year he looked forward to as best of all. "Well," said he, after studying a minute, "the first good time we fellows look for is school out; an' then comes fishin'-time, an' then Fourth o' July, an' then picnic-time, an' then fair-time, an' then Thanksgivin', an' then Christmas!" He studied profoundly a minute longer, then looking up, exclaimed, "I can't just say which we look for most. We like every one of 'em first-rate!"

Well, "fair-time" is here again, and every farm should have at least one open-eyed representative at the nearest good county fair, and, if possible, one or more at the state fair. Most townspeople, as well as thousands of farmers, attend fairs for amusement; that is, they go there expecting to be amused, and unless there is a fast and furious midway, or a lot of racing, balloon ascensions, or other features of that character, the fair is considered a failure. Live, enterprising farmers regard a fair as an educational exhibition, and they go to see what is newest and best in farm machinery and household appliances, and also to see how nearly their own stock is equal to that on exhibition. Unless these features are full and complete, and the various departments well filled, the fair has no attractions for them. A live, wide-awake person can learn a great deal at a good fair if he or she attends it for that purpose, and very often the information thus acquired will prove of lasting benefit. If one attends simply to be amused the benefits will be meager.

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Not long ago a farmer friend said, "I hate picnics, fairs and such like gatherings in hot weather, because a fellow must dress up if he goes to them, and I hate to have to dress up in hot weather." I once met him at a picnic, and he was "dressed up," and I never saw a person more thoroughly uncomfortable. He had on a stiffly starched shirt, a thick, turn-down collar, a heavy tie, and a suit of clothes that would be comfortable if the snow was flying. And the thermometer stood at ninety-two in the shade. At home his every-day outfit consisted of a thin hickory shirt unbuttoned at the collar, a pair of light cottonade trousers, cotton socks, shoes and straw hat. No wonder he is uncomfortable on a hot day when "dressed up." I have met hundreds of farmers at fairs and picnics clad in suits that would be very comfortable in freezing weather. Their faces were red, and the sweat trickled down their necks, and they looked as hot as harvesters. I notice, however, that they are learning how to "dress up" in hot weather. Every season I find more of them in light, cool, summer suits. The stiff, hard, hot, starched shirt and thick double collar are disappearing, and light negligee shirts, with other suitable summer clothing, are taking their place, and the men look as cool and comfortable as their city cousins, and enjoy their outings quite as well. To thoroughly enjoy an outing in hot weather one must be lightly clad, even if he is accustomed to working in hot sunshine all day long.

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Saving Steps It is surprising how people will fritter away time and take thousands of unnecessary steps because they do not exercise their brains a little. I have seen men make four trips from the house to the barn to get four little things they needed. I have seen women make six trips between the table and pantry in moving six little things, three from each place, when the whole could have been done in one trip. I have seen them go into every room in the house from three to eight times in getting ready to go to town or to church. Dress would be in one room, collar in another, hairpins in another, hat in another, then back to the first for a handkerchief, and so on, until they had walked nearly half a mile; and when they were ready to start they would be sweating and "all tired out!" I have seen men leave the doubletrees, clevis or a chain a quarter of a mile down the field, and an hour later have to walk down there to get them. By keeping our wits about us all the time we can save a multitude of steps and hours of time every week. An old farmer once said to his son, "Don't take a step, John, until you see whether you can save two or three. Do one thing going and another coming if you possibly can. Don't wear yourself out unnecessarily!"

* * *

Cutting Corn Corn is growing rapidly this season, and thousands of acres will be ready to cut in August. As soon as the grain is glazed it is ready to cut, and whether the time be August or October the cutting should be done. In a damp season I have seen the stalks and leaves as green as grass when the grain was glazed, and when cut in such condition and properly shocked it makes first-class fodder, and stock will eat almost all of it. When cut in August or early September the shocks should be made rather smaller than when cut later, especially if the season is somewhat wet. Some cutters start a shock by laying three or four bundles crosswise on the ground. That is an easy way, but a very wasteful one, for in a wet season both the stalks and corn that lie on the ground are spoiled, while rats and mice often play havoc with it. Set every stalk up as straight as it will stand, and tie every shock near the top as tightly as it can be drawn and the fodder will cure out nicely and make feed equal in value to good timothy hay. Fodder molds in the shock only when the shocks are made too large and not set up well, or when tied too low. Get the tie on before the shock begins to lean or twist, get it up near the tops, and draw it tight; then the shocks will stand straight for months and not mold.

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To Be Sure, Graft For some years I have been in doubt as to whether the much-maligned tree-agent is much worse than some nurserymen. Seven years ago I bought a lot of Mammoth Black Twig apple-trees from a prominent nursery, and this year they are bearing some fruit. It does not appear to be all the nurseryman's catalogue painted it, so I called the attention of a pomological friend to them, and he at once pronounced them to be the Minkler. When I bought them I supposed that as I was dealing "direct with a reliable nursery" I would surely receive trees that were true to name; but it seems I fared no better than many who have dealt with the wicked tree-agent, who sells all varieties from the same bundle. I have about concluded that the surest plan to obtain what one wants is for him to do his own grafting. One thing is certain, if we secure grafts from the trees that bear the best fruit, bear most regularly and are strong and vigorous growers, we will not be disappointed when they reach a fruiting age. Grafting is not a difficult operation, and stocks can be bought cheaply, and when we have grown the trees we know exactly what they are. I think it will pay to look into this matter now, while the trees are fruiting.

Fred Grundy.

OUR FARM

FARM THEORY AND PRACTICE

FARMING AND SPECULATING.—A successful farmer tells me that he proposes to buy and store the wheat crops of a few neighbors this summer, believing that present prices are too low. He sees that the wheat of the north-central states is very poor, and he reads that the spring-wheat section has suffered greatly from drought. To his mind all this means a high price for wheat, and he wishes to profit by his supposed knowledge. I have watched grain markets for many years, noting the predictions of the best-posted market papers, and the conclusion is irresistible that no one can foretell with any certainty the course of grain markets. There are too many unknown factors. It may be profitable to consider the nature of some of those factors at this time, when the price seems below true value to producers in many sections of the United States.

Last year the two Dakotas and Minnesota produced nearly two fifths of the entire wheat crop of this country. This year the reports of shortage in those states vary so materially that the would-be investor cannot base any accurate calculation upon them. The statistician of the Chicago grain-dealers makes an estimate of damage from drought so much greater than the estimates of two of the most accurate grain journals that one cannot accept it with safety. One of the latter estimates the yield of winter and spring wheat to be about seventy millions of bushels greater than the July government report indicates. And yet the close of each year has usually proved this journal to be nearer the truth in its estimates than the government. Where shall the farmer go for safe statistics when launching his boat upon the sea of speculation?

The farmer inclines to look at the condition of crops in his own state and in those adjoining. But this year we carry over a surplus of wheat. It was a knowledge of this surplus that held prices low throughout the past year. We had in this country more wheat than Europe could buy. That surplus is now added to the present somewhat short crop, and is a factor of importance. The remarkable wheat production of the Southwest this year makes amends for much of the shortage in the remaining winter-wheat section. The surplus carried over from last year offsets, in part, at least, the effects of drought in the spring-wheat section. Taken in all, it is quite possible that the amount we shall have for export will be equal to the amount for which we found a market last year. This conservative view may prove to be the correct one, though there is yet time for further damage to spring wheat, which would quickly advance prices.

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THE DEMAND OF EUROPE.—That which finally determines the price is European demand, as we in any event are sure to have wheat that must be exported to be consumed. And who can now foretell the final outcome of the world's crops? Not our farmer friend, surely, and yet upon this he stakes his money when investing in wheat. Within two months we may have a fairly accurate idea of European crops, and know something of the amount Europe must import; but even then the crops of countries on the other side of the equator are not even harvested, and we do not know what part they may play in supplying demand. Argentina was a big factor last year, displacing all of our wheat that remained in this country as a surplus June 30th. We cannot tell about prices.

* * *

CORN EXPORTS.—The corn exports of this country have become large. We are trying to teach Europeans to use corn for bread—a mistake, as it seems to me, but a fact to be considered. How far we are successful is not known. Probably the most of the corn is used for stock-feeding; but in case wheat should rise in price, has the taste for corn been cultivated in Europeans sufficiently to lead them to use the corn to some extent in its stead? That is an unknown factor, though we do know that any material rise in price limits demand wonderfully in Europe, where the poor eat much rye and other bread that is not made from wheaten flour. If the present corn crop should be equal to that indicated by the July report of the government it will tend to hold down wheat prices.

* * *

THE OTHER SIDE.—On the other hand, more damage to the spring-wheat crop, or crop failure in some European countries that did not have the usual strong stand of plants last winter, or failure of the Argentina crop, would send up prices quickly, because the world's surplus is very small, and some shortage would attract immediate notice. It is a time of wars, and there is danger of rupture between many nations now, all of which tend eventually to increase the demand for breadstuffs from exporting countries. As the case stands, the speculator is holding the price of wheat at the point probabilities indicate to be the true market value of the grain. If all goes well there is breadstuff enough; if matters go awry with European crops, or in Argentina, or in our own Northwest during these few weeks, there will be some shortage, and advance in price. No one knows now.

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DOING A SAFE BUSINESS.—It certainly is not my object to encourage the free selling of wheat by farmers. I hope for better prices, and see many chances for a material advance in price. But I am trying to make plain the fact that there is no certainty about a rise in price. The professional speculator is in a better position to foresee a rise in price, and to profit thereby, than is a farmer. It is his business to get facts ahead of the masses, and to use them. He often fails to read the signs aright, though speculation be his specialty. Now comes the question, Can the farmer, making his money slowly, as farmers do, safely venture his capital in grain speculation? I doubt it most seriously. Observation shows that few farmers have been successful as speculators. In the long run they come out losers. They go into a game that is played by experts, and when they purchase they put their judgment against the trained judgment of thousands who would quickly buy, and thus make an advance in price if they thought conditions warranted them in doing so.

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HOLDING ONE'S CROPS.—Storing and holding one's own crop is vastly different from buying for speculation. The former comes in connection with production, the size of the crop limits the risk taken, and past earnings are not risked. Speculation is an outside affair, demanding the venture of past earnings, having no reasonable limit, and distracting attention from one's regular business. The first is, in its very nature, reasonably safe; the latter is, in its very nature, full of hazard.

DAVID.

FARMER BOYS, REACH OUT!

There used to be a theory that the boy who happened to be born upon the farm was of all persons most to be pitied. Fate had nothing in store for him, so the world thought, except to dig in the ground and stick to the hoe until his fingers grew as crooked as bird's claws in the endeavor to wring a livelihood from old Mother Earth.

This theory never had any foundation in fact. It was a most wretched thing to throw at any boy that he was doomed to be a nobody because he was the son of a farmer. But it cannot be doubted that some bright lads have been discouraged and perhaps kept from taking their true place in life by the gloomy predictions of those who did not see the possibilities which lie so thickly about the farmer boy's pathway.

Now, I am going to tell you what I have seen some farmer boys do. Then we will see whether theory and fact correspond in this case or not. I remember one lad, born of very poor parents, on a "way-back" farm. If ever fate seemed to be against a boy it did against him. But he had the will to do great things, and all alone he set out. Working on the farm in the summer and winter, going to school in the fall, and by and by teaching a term or two of district school, he worked himself through a three-years' course at the academy. Then he entered a newspaper office and began setting type. At first he received simply his board. Soon he proved more valuable to his employer, picking up items of news about town, and was taken from the case to the reporter's desk. From that point he went on rapidly. A few years later he occupied the chair of editor of one of the leading papers of his county. Then he represented his township for five years on the board of supervisors, the law-making body of the county. Shortly he was promoted to be member of the state legislature, filling all these positions with honor to himself and to the satisfaction of his constituents. Is that all? No; I saw that man return to the country and buy a farm and set about the work of making it one of the best places in his locality. There he is to-day, one of the leading citizens of the state. Would any one say that farmer boy had proven to be a failure?

Another farmer boy I think of now, by working hard at home evenings and odd hours prepared himself for entrance to one of the best schools of his native state, passing the examination with credit to himself and proving conclusively that the brains of the country are not reserved for the denizens of the city. I know of two other young men who have made their way through a four-years' course at college alone and unaided.

I can think of a number of farmer boys who are well educated, but who do not think it beneath them to work every day upon the farm. They have been called upon to fill some of the most responsible places in the gift of the people, and have done their work faithfully and well. While on this point I may say that I remember hearing a gentleman who lived in the city say once that he thought the government of the county in which he resided would be safer in the hands of the farmers than it would be if intrusted to the men who usually come to the front in the politics of the city. I thought this a fitting tribute to the integrity and ability of the farmer.

In the legislature of the great state of New York two years ago sixteen farmers sat as law-makers, and they were the very salt of that body. Their hands were free from the touch of corruption, and their sound good judgment caused them to be sought by those who might have been supposed to be far higher in the social scale. There will be more farmers in public life when our people come more fully to appreciate their sterling worth.

So I say to the boys of the country, Reach out! Toward what? Toward the possibilities lying so closely before you. Who has a better chance than you to study Nature in her very home? Trees, birds and plants of every name and nature lift up their beautiful faces at every step and invite you to learn their secrets. How little most boys, even in the country, really know about the simplest things they meet from day to day! A little study night and morning will enable you to master all these subjects. A boy I know of began studying the common rocks of the farm he lived upon. To-day he is a teacher of geology in one of the greatest universities of this country.

But is it worth while for one who intends to be a farmer to spend his energies in studying such things? Forever yes. The best farmer is he who has the best all-round education. For such men the world is fairly longing. Aside from the question of one's own individual success as a farmer society yields the palm to-day, and yields it gracefully, too, to the farmer who has mastered not only Nature and her mysteries, but can meet the professional man in every field and hold his own. The all-round farmer must know something about all kinds of business. He will when he finds of what incalculable value it will be to him to possess such knowledge.

How can the farmer lad do all this? By doing to-day the thing he can do faithfully and well and reaching out for the next higher thing. Do it yourself. Several years ago I saw in a certain man's office a number of young men gathered after business hours. One of these lads was laboriously shaving himself. The other boys were inclined to laugh at him for his awkward efforts. Some advised him to patronize a barber. In spite of all their chafing he worked away persistently. The owner of the office had been noting all that was going on, and finally he said, "Johnnie is all right. The capital looms before the boy who can do little things for himself." The prediction proved to be true. That boy became a respected legislator of his state.

Reach out! Keep cool! Turn your eyes toward the top!

I once had a hard job of mowing brush. The field stretched away up a long hill, which seemed to me, as I stood at the bottom, almost insurmountable. An old farm-hand who happened along just when my youthful spirits were at the lowest ebb said, "Keep your eyes turned away up yonder toward the top, and keep pecking away. You'll get there."

There is not a little wisdom about that advice. Keep your eyes turned toward the top and work away.

EDGAR L. VINCENT.

ORNAMENTATION IN FARM-LIFE

In a recent issue of a monthly agricultural journal a writer advises the cutting down and rooting out of the majority of the ornamental trees and shrubs that may be found on a farm, and particularly when they are located in any place on the farm grounds that might be utilized for growing crops. To those who are familiar with farms where ornamental trees and shrubs are few and far between such advice is uncalled for, and where such conditions do exist the advice referred to is certainly ill-advised.

As is generally known, there is a lamentable dearth of the ornamental in nature on the average farm, and it is inconceivable how any one can have the heart to advise the destruction of those things where they do exist. Surely there is something to be gotten out of farm-life besides crops and the hard labor necessary to raise them. It is admitted that the serious question of bread and butter with a possible mortgage are things first to be considered in farming operations, but if the laborer is worthy of his hire he is entitled to enjoy some of the comforts of farm-life, instead of bending every energy to make it all work.

In some sections of the country the independence of farm-life is giving way to mere drudgery, and in many cases this is due almost wholly to mistakes of the farmer. Along the New Jersey coast, or rather on the farms back of the towns along the coast, farming has given place to "trucking"—the raising of fruits and vegetables for the summer resorts—until it often seems as if the heavier farm crops were becoming unknown; and this work entails long hours of labor for three or four months, with results frequently far from profitable at the close of the season. I have actually known farmers in the section referred to, to devote every inch of their farms to the growing of summer vegetables, and wind up the season with quite a little sum in ready cash, but with a long winter ahead, and cows, horses and poultry to feed with rations bought with the money received for the summer vegetables. The result, as might have been expected, was a mortgage.

This may be getting away from my subject a little, but is referred to because in one case a most beautiful row of shrubbery was rooted out for the sole purpose of obtaining more land for summer vegetables. Fortunately such a case is an exception, but on the other hand are those who will not devote the small space necessary for trees and shrubs, because they want it for crops. There is not a farm in this country but where some portion can be devoted to the ornamental without loss. What is lost in the way of crops will be gained in giving added value to the property by reason of this ornamentation. We are all familiar with the story of the man who, wanting a note discounted, went to the bank for that purpose, and though it was known his farm was mortgaged, was accommodated simply because of the attractive grounds around his farm home.

[CONCLUDED ON PAGE 6 OF THIS ISSUE]

NOTES FROM GARDEN AND FIELD

Growing Cauliflowers.—A lady reader, Mrs. W. B. C., of Charlottsville, Md., wants me to tell her how to manage cauliflowers so they will head well. It is not the easiest thing in the world to grow fine heads of this vegetable. Sometimes, when soil and weather are right, the plants will head very nicely, and at another time most of them will be entirely worthless. In the first place, the cauliflower needs plenty of food and drink from the time that the plant emerges from the seed until it is fully developed. Any check given to it at any time is fatal to success. It takes less time from sowing seed to grow a good head of cauliflower than to produce a good cabbage, even of our early sorts, and usually I can and do secure some good early cauliflowers, having them ready for use and market even before I have a head of early Jersey Wakefield cabbage. In many home gardens the soil is very rich, in consequence of heavy annual applications of stable manure. Such soils are well suited for cauliflower-growing if a spot is selected where any of the members of the cabbage tribe had not been grown for one or two years just preceding. There is only one danger in such locations; namely, that the enemies of the crop, such as the cabbage-fly, which makes the cabbage-root maggot, the harlequin-bug, etc., were bred on cabbage and similar crops the year before, and will be present in large numbers again, ready to raise the dickens with the present crop. To grow early cauliflowers start the plants from seed in hotbed, greenhouse, or in a box in the house, at about the same time you start your early-cabbage plants, which in Maryland is probably early in February (possibly late in January). While the plants are yet small pick them out into a cold-frame, so as to grow them short and stocky, with well-developed roots, and just as soon as you can get your ground ready put the plants out, giving them not less than four square feet of space apiece. More is better. If you use a horse-cultivator to work a portion of the garden, make the rows three feet apart, and set cauliflower and early-cabbage plants about two feet apart in the rows.

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Too much attention cannot be given to this crop afterward. The soil should be kept well stirred about the plants in dry weather. Never allow a crust to form around them. Should it be very hot and dry I would place some litter—coarse manure, leaves, old corn-stalks, anything, in fact, that will cover the ground, but lie rather loosely on it—all over the patch around the cauliflower-plants, and then occasionally put a good lot of water, or, better, liquid manure, soap-suds, etc., on the litter, giving the ground underneath a good soaking. If you have reason to believe that maggots infest the roots of the plants, make strong lime-water and pour a pint or quart close to each plant, so that it will soak down to the roots and kill the maggots by contact. Fresh lime must be used for this; and, by the way, an occasional heavy application of lime is a good thing for any ground where cabbages and other plants of the cabbage family are grown more or less every year. Few home gardeners can be expected to have nitrate of soda within easy reach. I always try to push my cauliflowers by repeated applications of this form of nitrogen. I feel much surer of my crop if I can give to each plant an ounce or so during the season. It may be put on scatteringly around the plant in one or two applications, or be put into the water with which the ground is soaked in a dry spell. If you have saltpeter, try a little of that.

* * *

After the heads begin to form the direct sunrays during hot and dry weather can do a good deal of damage. For that reason the outer leaves are folded or broken over the heart of the plant, or tied together at the tips in such a way as to protect the head and keep it white and compact. For the late crop I sow seed during June in rich ground in any garden-spot that happens to be vacant at that time, putting three or four seeds in a place, say two and one half feet apart in the row, previously marked out with a shallow-running marker, covering a little soil over it with the foot and firming the soil over the seed by stepping on it. The plants seldom fail to make their prompt appearance, even in dry weather, and grow right along while it may be too dry for successful transplanting. When the plants are of some size, say three or four inches high, and well rooted they are thinned to one plant in a hill, and if the weather is right the plants pulled up may be set out in any other place then vacant. This crop is handled and tended as carefully as the early-cauliflower crop, and will give good heads in September or October, just at the time when people usually do up their pickles.

* * *

Wasps and Fruits.—Wasps are hardly ever mentioned when we talk about the enemies of the gardener and fruit-grower. Yet they are frequently doing a great deal of damage. Some of my Columbus gooseberry-bushes, for instance, have only a few sound berries left on them, although they were loaded with fruit and only few berries have been gathered. Swarms of wasps, wild bees, etc., come to these bushes, puncture or rip open the skins of the ripest berries and take out the whole of the pulp. These bushes (now quite large) were transplanted to their present location in early spring; of course, with great care, and a big chunk of earth clinging to their roots. The effects of the transfer were apparent in various directions; namely, reduced growth of wood, smaller berries and earlier ripening. These bushes are more exposed to view and air and more accessible generally than the older gooseberry-patch from which they were taken, in order to give the remaining ones more room. In the older patch the Columbus gooseberry-bushes are prostrate on the ground, so heavy is the load of fruit and so large the size of berries. But not a wasp or bee is to be seen there. At one end of the patch stands a bush of the Red Jacket, a variety of which Dr. Hoskins, of Vermont, claimed to have gathered one half bushel of fruit from a single bush. This bush has never borne a heavy crop, simply because it did not have the same generous treatment in the way of manuring and mulching as the balance of the row. This spring I covered the ground around it deeply with ashes (coal and wood), also mulched heavily with rich manure. Now the bush has a heavy crop, although it does not hold the candle, in this respect, to the Columbus. Words fail me to describe the wonderful sight that the latter presents at this time. If I were to publish a picture of this mass of fruit I would simply be accused of having taken it from a nurseryman's catalogue.

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Late Crops.—We can yet grow various things from the seed; for instance, radishes, both summer and winter, flat turnips, spinach, endive, kale, etc. Don't let your nice garden soil be idle yet.

T. Greiner.

INQUIRIES ANSWERED

By T. Greiner

Cultivating Morels.—C. C., Bates county, Mo., writes: "Can the mushroom that grows in the creek-bottoms, known as morel (Morchella esculenta), be grown in the garden like any other mushroom?"

Reply:—This morel is one of our best edible mushrooms, but it usually grows singly and scatteringly, and I have never learned of any one having made a success of growing it under cultivation.

Worms on Blue-husk Tomato-plants.—Mrs. M. R., of Nebraska, writes: "A great drawback in raising the blue-husk tomato here for the past few years has been the attack of worms, which sometimes destroy the whole crop. I would like to know a remedy for this."

Reply:—The inquirer should have given a description of the "worm." If it is the large green tobacco-worm, which feeds on almost all members of that group of plants (Solanaceae), hand-picking will dispose of it. Most other "worms" can be destroyed by dusting with buhach (California insect-powder) or spraying with kerosene emulsion, tobacco-tea, suds made of whale-oil soap, ice-water on a hot day, hot water, or with some poisonous solution.

ORCHARD AND SMALL FRUITS

Conducted by Samuel B. Green

THE MINNESOTA STATE HORTICULTURAL SOCIETY

Minnesota has a very much alive state horticulturral society of nearly eight hundred annual members paying an annual fee of one dollar each, and about one hundred honorary and paid life members. The honorary life members are old veterans in horticulture, or persons who have rendered distinguished services in the promotion of horticulture. The paid life members become such by the payment of ten dollars, which may be made in two annual payments of five dollars each.

The society holds two regular meetings each year. The winter meeting begins on the first Tuesday of December, and continues four days; the summer meeting is usually held in June, at about the middle of the strawberry season, and generally continues but one day. At each of these meetings free exhibitions of fruits, flowers and vegetables, upon which liberal premiums are paid, are made by the members. An annual report of over five hundred pages is published each year. It is first furnished to the members in monthly instalments, as a magazine. At the end of the year a quantity of these are substantially bound, and each life member and all new members, and those of the annual members who renew their membership, are furnished with a copy free in addition to the magazine.

The present summer's meeting was held in Armory Hall, on the grounds of the State Agricultural Experiment Station, at St. Anthony Park, Tuesday, June 19th. The meeting was well attended, and proved to be one of the largest and best yet held by the society. The forenoon from the hours of nine until twelve was spent in looking over the orchards, greenhouses and gardens, which are well kept, affording practical object-lessons. The grounds are extensive, but in squads of from ten to fifty, under the guidance of affable professors and helpers who were ready and willing to impart information, the occasion was made enjoyable and instructive. At twelve o'clock over four hundred were seated at tables literally decorated with flowers, and they partook of an ample dinner of the picnic order.

The afternoon was very pleasantly and profitably spent in listening to addresses and discussing timely topics, and hearing reports on the present conditions of horticulture in the various sections of the state represented at the meeting. The reports showed that over the greater part of the state the season had thus far been unusually dry, and was injuriously affecting the fruit prospects. All tree fruits had apparently come through the last winter without injury, and bloomed full and set their fruit, giving promise of a very heavy crop; but owing to the extreme drought or other causes apples were dropping badly, and a full crop could hardly be expected. Cherries are carrying only a light crop, having dropped soon after setting; and plums (only the best natives are grown) have largely followed the example of cherries. The strawberry exhibit was very large, but hardly as fine as in other years.

J. S. H.

INQUIRIES ANSWERED

Plant-lice on Plum-trees.—W. N. V., Marysville, Ohio. I am not able to positively identify the insects that are infesting your plum-trees, but think that they are some species of aphis or plant-louse, and if left alone they will doubtless prove to be injurious to the trees. I would suggest spraying the trees either with kerosene emulsion, rather dilute, or a solution of whale-oil soap, made by dissolving one pound of the soap in eight gallons of water.

Kiln-drying Fruit.—J. L. C., Bunyon, N. C. I am not posted on the kiln-drying of fruit, and would advise you to consult parties who have had experience in the business—to learn the process, degree of heat necessary and length of time required to cure different kinds of fruit. Such information can best be obtained either by visiting an evaporating establishment or applying to the directors of experiment stations in the older states, where large quantities of fruit are grown and cured for market in the dry state, or parties who manufacture or sell evaporators and other machinery necessary for the operation. I do not see any reason why tobacco-barns could not be fitted up and used as suitable buildings for the purpose. In the portion of the country where I am located there are no preserving establishments in operation.

Sowing Orchard-grass in Orchard.—G. S. R., Belle Haven, Va. I do not think that it would be advisable to sow orchard-grass in your orchard. It is one of the most valuable grasses, for pasture or meadow, but we cannot have a good orchard and a hay-field on the same ground. If any grass is sown in the orchard it should be clover. The clover should be mowed frequently, and the crop left on the ground as a mulch, and should not stand more than two years before it is plowed under and followed with a crop of cow-peas. Experience has proved that the best treatment for a bearing orchard is to plow the ground shallow every spring, and keep the weeds down by the frequent use of a cultivator or spring-tooth harrow until about the first of August. Before an orchard has reached the bearing age early sugar-corn or garden vegetables may be profitably grown between the trees if care is taken to keep up the fertility of the soil by the application of manure.

Oyster-shell Bark-louse.—E. T., Filion, Mich. The samples of apple-tree bark that you have sent to me are badly infested with the oyster-shell bark-louse. This scale has been disseminated over the country on trees sent out by careless nurserymen and by other means until it is now found in almost every locality where there are orchards of apples or pears, and if left unchecked is often very destructive. It more often attacks and seriously injures trees that for some reason are unhealthy or where their cultivation is neglected, and are therefore poorly fitted to support the extra drain of the scales. If trees are properly cultivated and kept growing thriftily they will not show much injury for some time, but wherever the scales are discovered it is best to take measures for their destruction. Under each full-grown female scale there is concealed from forty to sixty eggs, from which lice are hatched during the last of May or early June. At this time the newly hatched lice are easily destroyed by spraying with whale-oil soap solution, or with any common soap solution, one pound to from four to seven gallons of water. The insects begin almost immediately to secrete a scale, and later in the season are more difficult to destroy. For destroying the adults, spraying after the foliage has fallen, or before it opens in the spring, with kerosene emulsion or whale-oil soap, one pound to one gallon of water, adding a little carbolic acid to the solution, will destroy all that it reaches and will not injure the trees.

Spined Soldier-bugs.—E. C., Union City, Ind., has sent me by mail samples of an insect which he discovered recently on a branch of an apple-tree, and requests the name and value of the insect. He writes that "the canker-worm is plentiful and doing damage to orchard and forest trees in the section where he resides, and that he observed these insects on a branch of a tree which was infested with the canker-worm. After examining them carefully and watching their actions he found they were not damaging the tree, but had entirely rid the branch upon which they were located of the canker, or measuring, worm. He then removed some of them and placed them upon another tree, and found that within forty-eight hours they had rid the tree of the greatest part of the worms. The insects in question were not as promptly at hand as they ought to have been in these days of fast mails, but were received in a condition to be easily identified. They were larvae of Podisus spinosus, a species of rapacious insects popularly called "spined soldier-bugs." They suck out the juices of their prey by means of a short but sharp beak, and subsist entirely upon the larvae or caterpillars of other insects which are injurious to vegetation; hence, they ought to be protected and encouraged to multiply as much as possible. The young, or larvae, have exactly the same habits as the mature insects. They are quite common in some sections, and where numerous have proved to be a great help in keeping the canker-worm and other caterpillars in check. They are credited with preying upon the cotton-worm, and I have observed them, and others of the same family, feeding upon the larvae of the Colorado potato-beetle in such numbers as to render spraying with Paris green unnecessary. As they are sucking, instead of biting, insects, and apparently prey only upon the living caterpillars, it is not probable that they would be greatly injured by the arsenical poisons that are used in combating the canker-worm. But where the soldier-bugs or their larvae are discovered in considerable numbers the spraying is unnecessary and hardly advisable, and the use of kerosene emulsion, hellebore or other preparations recommended for the destruction of sucking insects would prove an injury rather than a benefit. The same is also true where the larvae of the lady-bug are found frequenting plants in considerable numbers, as they prey upon the eggs and young of the aphis and other injurious insects.

A WESTERN COOKING-SCHOOL

[CONTINUED FROM PAGE 1]

china and silverware supplied by the college. In the basement is a large class-room for the cooking-class, supplied with the most approved appliances for work in all branches of the culinary art. Back of this room is the laundry, and a small kitchen for special use.

The department of domestic science in the college was the outgrowth of the conviction that the education of a young woman is no more complete without training in the domestic arts and underlying sciences than is the education of a young man without training in the practical arts pertaining to his peculiar lines of occupation. "Knowledge is an excellent thing," says the board, in a recent catalogue, "but knowledge and the acquired skill to apply that knowledge are infinitely better. To know what to do is important; to know the same thing, and, in addition, to have skill in doing it, is reaching out and taking hold of the best."

The course includes five terms of lectures and class-room recitations. The subjects of hygiene and sanitation are taken up at the beginning of the winter term of the sophomore year, and are classified as follows: Study of the home, selection of location, building of the home, surroundings, furnishing, the use of disinfectants, individual prophylaxis against disease, school hygiene, foods, and the preventable causes of disease.

During the spring term of the sophomore year the leading aim is to teach self-reliance, presence of mind, an interest in general subjects, and to train the student to express herself concisely, intelligently and entertainingly. The scheme is varied for each day in the week. On Mondays the subjects always relate to the human organism. Tuesdays are devoted to emergencies. On Wednesdays each student is required to prepare for the class an item of interest that belongs to the general subject of home science. Thursday or Friday is given to written work, an emergency always alternating with the former. The lesson for Friday morning is one of great importance. Some subject for discussion is announced one week in advance, with a member of the class as leader, who takes charge of the class for twenty minutes; then the instructor takes the chair and recapitulates, adding and modifying wherever necessary.

In the fall term of the junior year the subject considered is the chemistry of cooking and cleaning. The work of this term tends to lift the veil of mystery from many kinds of housework, and to fill the mind of the student with a broader conception of her sphere as a home-maker. During the winter term of the junior year the science of nutrition is studied, with Atwater's "Chemistry and Economy of Food." At the opening of the spring term Weeks' text-book on "Nursing" is placed in the hands of the students, and as thorough investigation and study as are possible without clinical practice are carried forward.

The afternoon work in sewing consists of drafting patterns, cutting out garments, plain sewing, plain and fancy stitches, embroidery and millinery. Special instruction is given in dress-making.

The week in the kitchen laboratory includes the study of foods, with practice in all kinds of cooking and laundering. Sweeping, washing of wood and glass, as well as dusting, form a part of each student's duty. A lecture is given on each Monday afternoon on some topic relating to the care of the house, clothing or person, social duties, customs of good society, and anything that will aid in the development of a perfect womanhood.

Ever since its inauguration the department of domestic economy of the Colorado Agricultural College has been under the direction of Professor Theodosia G. Ammons, to whose intelligence and untiring efforts the success attained is largely due. So well known has her work become that she was chosen by the Texas-Colorado Chautauqua to design the model home for the present session at Boulder, Colorado, and also to conduct the school of domestic science connected with the meeting.

ORNAMENTATION IN FARM-LIFE

[CONTINUED FROM PAGE 4]

Possibly this may have been considered somewhat in the light of a "fairy tale" by many, but the chances are it was true, for it is pretty well known that bank officials, as well as other business men, are very fair judges of property values, and thoroughly appreciate the value of tree and plant ornamentation to a property.

Then there is the sentimental aspect of the subject. We are wont to groan over the hardships of farm-life and the difficulty of keeping the children there after they have reached an age when their services might be valuable. But do we often think that we are doing little to make these young people want to stay? We forget that to the young life has its lights and shadows more sharply defined than to us of maturer years; their sense and appreciation of the beautiful are more acute than ours, and they are given to drawing contrasts between their own home and those of others where the surroundings are more as they should be. So gradually the old home comes to be in their minds but a temporary resting-place, until time and opportunity enable them to go from it and work toward the ideal, which unconsciously they have formed by very contrast with their daily surroundings. And then the wife and mother! She realizes the necessity for crops, and paying crops, quite as fully as does her husband; but her finer nature revolts at the narrowness of her surroundings as her eyes, sharpened by mother-love, note the effect of the barren surroundings on her children. Do you suppose that in the struggle of life she has lost her love for the beautiful in nature, or forgotten the fragrance of the rose and the purity of the lily? Do you ever dream that she longs to rest her weary eyes on some growing thing that has no salable or market value—something that she might pluck at will, and, pressing against her aging face, dream over again the girlhood days? "Sentiment!" say you. Yes, it is sentiment; but is it not true? And does not sentiment find a place in every successful action of our lives? Not alone, perhaps, but combined with good business judgment and management all of us appeal to sentiment in our daily transactions with each other. This being the case, why should we not combine them in making our farm home? Let us improve it by the use of trees and flowers; on the one hand for the added value we give in the minds of the general public, and on the other hand for the added attractiveness it will have in the eyes of our children, our wives and ourselves. GEO. R. KNAPP.

BACTERIAL VINE-WILT

Injury has often been experienced by growers of muskmelons, cucumbers, pumpkins and squashes in the northern United States, due to the attacks of bacteria. The species that does the damage is a very sticky, white micro-organism that causes the sudden collapse of the leaves and upper parts of the vine by clogging the sap-ducts. How the disease passes the winter has not yet been discovered, but Dr. E. F. Smith, who has been working upon the disease for some years, has found that a single infected plant will be sufficient to spread infection to a whole field in from four to six weeks if there are plenty of striped beetles and squash-bugs to feed upon it and carry the infection from plant to plant. When these insects bite into the diseased tissue some of the sticky germs adhere to their beaks, or jaws, and naturally some of the germs are deposited upon the surface or in the tissues of the next plant they bite. From these bites, or points of infection, the disease appears to spread outward until the wilting effect occurs and the plant dies.

At present only two methods of fighting the disease are known. The first is to pull up and burn the infected vines as soon as they show the first trace of wilting. This will allow insects the least possible chance to feed upon infected plants and to distribute the disease. The second is to search for and destroy every squash-bug and striped beetle that sets foot in the field, thus reducing the chances of inoculation. M. G. KAINS.

DIVISION-LINE HEDGE

The question is asked, "Can I plant a hedge on a division-line, in place of a fence that I have removed?" No, you cannot, unless by mutual agreement with your neighbor. The hedge will overreach and trespass on your neighbor's land, and this it will do more and more continuously every year. Nor without his consent can you go upon his land to trim the hedge. If you wish for a hedge, you may set it on your own land far enough from the line to allow for its growth and to give you room for trimming it. E. P. POWELL.

CORRESPONDENCE

FROM WASHINGTON.—Having read both "A. P.'s" and "I. L. S.'s" articles on Washington, I should like also to say a few words on the subject. "A. P.'s" statements as to the climatic conditions of western Washington are substantially true. I have known this coast for some time, and every winter and spring have longed wistfully for the covering which generally graces the back of the turtle. Last spring I would have been extremely thankful if some benevolent individual had furnished me with a diving-suit sufficiently weighted to prevent me from being washed away. The great feature about the rain here is that it knows when to begin, but never knows when to stop. These conditions of climate do not obtain in eastern Washington, where, as "I. L. S." states, there is a quantity of good land that does not require irrigation. But, again, there are very large tracts which would be utterly worthless if they were not extensively irrigated. You will probably hear some different opinions on this subject, but in conclusion I would say that climatic conditions are liable to assume a different aspect to the city man than to "the man on the land." E. B.

Stuck, Washington.

RECENT PUBLICATIONS

BOOKS NOTICED

LETTERS TO THE FARM-BOY. By Henry Wallace. Third edition. Price $1. Published by the Macmillan Company, New York.

TRUE MOTHERHOOD. By James C. Fernald. 12mo, white leatherette. Price 60 cents. New York and London, Funk & Wagnalls Co.

ANGORA GOATS; the Wealth of the Wilderness. By George Edward Allen. Price 25 cents. Horace A. Field & Co., Wellsboro, Pa.

THE CORN TRADE AND OPTION MARKETS. Considered in relation to social economic problems. By F. Hammesfahr. Price 50 cents. Gustav E. Stechert, New York.

FLASHES OF WIT AND HUMOR; or, a Brief Study of the Best Things of the Brightest Minds. By Robert Waters. Price, cloth-bound, $1. Edgar S. Werner Publishing and Supply Co., New York.

HEMP (Cannabis sativa). A practical treatise on the culture of hemp for seed and fiber, with a sketch of the history and nature of the hemp-plant. By S. S. Boyce. Illustrated, 12mo. pp 122, cloth. Orange Judd Co., New York. Price, post-paid, 50 cents.

CATALOGUES RECEIVED

W. E. Caldwell Co., Louisville, Ky. Illustrated catalogue of tanks, towers, tubs, etc.

American Ginseng Gardens, Rose Hill, N. Y. Illustrated catalogue of American ginseng.

W. C. Cousins, Ferrum, Va. Illustrated circular of a new combined single and double shovel-plow.

Perkins Windmill Company, Mishawaka, Ind. Illustrated catalogue of the Perkins windmills, towers, tanks, pumps, etc.

Ellwanger & Barry, Mt. Hope Nurseries, Rochester, New York. Catalogue of pot-grown strawberries for summer planting.

Thos. W. Holloway, Secretary, Pomaria, S. C. Premium list of the South Carolina State Fair, to be held at Columbia, October 29 to November 2, 1900.

W. W. Miller, Secretary, Columbus, Ohio. Premium list of the Ohio State Fair and Industrial Exposition, to be held at Columbus, September 3-7, 1900.

The International Correspondence Schools, Scranton, Pa. Pamphlet explaining correspondence instruction in the engineering trades and professions.

Barschall Impregnating Company, 31 Nassau St., New York City. A treatise on wood preservation, with special reference to the thorough, reliable and permanent new German process.

The Stover Manufacturing Co., Freeport, Ill. Illustrated catalogue of the Ideal power windmill and auxiliary goods, containing much original and useful information on utilizing wind as a source of power.

The McCormick Harvester Machine Co., Chicago, Ill. "One Hundred Harvest Scenes All Around the World." A very interesting book of half-tones illustrating the McCormick harvesting-machines at work in many different lands, with text in English, French and German. Illustrated catalogue of the McCormick right-hand rice-harvester.

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THE POULTRY-YARD

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ALLOWANCE OF GRAIN

There is but little difference in the grains. In winter one quart of grain a day for twelve hens would be about correct, or, if preferred, two quarts for twenty-five hens, as there is no standard quantity or allowance. In the use of meat-meal or green bone the rule is to allow an ounce a day to each fowl, irrespective of other food, the object being to provide nitrogen and mineral matter. The quantity of food claimed to be required by an animal is estimated at about three per cent of its live weight daily. This merely supports life; all increase, or any product whatever, must be supplied by an extra allowance, so that twenty hens, weighing one hundred pounds, would need three pints of solid nutritious matter daily to live, without increase. This is equal to three twentieths of a pint for a hen. Two twentieths of one pint, or about one and one half ounces of food, are then required every day for the production of eggs, the total daily food requirements being one fourth of a pint, and this is the rule among some experienced poultry-keepers for winter feeding. One quart of corn or other grain for eight hens is the allowance, given at least in two meals, and it has been found that a flock of hens, when supplied with a constant provision of grain before them, will sometimes consume this quantity and no more, in addition to what small things in the shape of insects, grass, etc., they may pick up; but, as stated, all fowls are not alike, hence allowance must be made for circumstances and individuality. To avoid overfeeding the quantity should be reduced one third except in severely cold weather.

LATE HATCHING

The late chicks are sometimes more profitable than the early broods, for the reason that as they are hatched after the weather becomes warm they do not require much attention. It may be mentioned, however, that many farmers object to late-hatched chicks, because they claim that they are attacked by lice when young, and do not thrive. That the younger chicks will not withstand the attacks of lice, which are more numerous after the weather becomes warm, is true, but it is the duty of all who expect to make profit from chicks to keep lice away, as it is not difficult to do so if the work is commenced early. The cost of raising late chicks, when they can get grass, insects and seeds in plenty, is almost nothing, and there are but few losses from exposure. Chicks hatched in June, July, or even as late as August, are preferred in market to fowls; but such chicks are sold when they weigh about two and one half pounds each, and they bring from fifteen to twenty cents a pound, according to quality. It is a mistake to cease hatching chicks because spring has passed; and even if it is difficult to ship them to market they may be consumed at home; but in all sections where there are large cities that can be easily reached late chicks that are fat and in good condition will sell rapidly, as there is a demand for such every fall. Sitting hens may be put to good service in summer at hatching broods.

VALUE OF EGGS ON THE FARM

It would be wise to substitute more eggs for meat in the daily diet. About one third the weight of the egg is nutriment. This is more than can be said of meat. There are no bones and tough pieces that have to be laid aside. A good egg is made up of one part shell, sixty parts white and thirty parts yolk. The white of an egg contains eighty-six per cent of water, the yolk fifty-two per cent. The average weight of an egg is two ounces. Practically, an egg is animal food, and yet there is none of the disagreeable work necessary to obtain it. The vegetarians of England use eggs freely, and many of these are eighty and ninety years old, and have been remarkably free from illness. An egg soon becomes stale in bad air, or in dry air charged with carbonic acid. Eggs may be dried and made to retain their goodness for a long time, or the shell may be varnished, which excludes the air, when, if kept at a proper temperature, they may be kept for several weeks. The French people produce more eggs than any other, and ship millions of them to England annually. Fresh eggs are more transparent in the center, old ones at the top. Very old ones are not transparent in any place. In water in which one tenth of salt has been dissolved good eggs sink, and indifferent ones swim. Bad eggs float in pure water. The best eggs are laid by young, healthy hens. If the hens are properly fed the eggs are better than if the hens are allowed to eat all sorts of food.

ROUEN DUCKS

The Rouen is considered one of the hardiest and best of the duck kind. The head of the drake is a lustrous green, the bill being greenish yellow, with a bean at the tip. The neck has a distinct white ring on the lower part, which should not quite meet at the back. The upper part of the back is ash-gray mixed with green, with lustrous green on the lower part, the saddle-coverts being streaked with brown lines. The breast is purplish brown, with no gray; under part of the body gray, being lighted behind, with black under the tail. The wings are grayish brown mixed with green, with a broad ribbon of purple, with green and blue tinges edged with white. Tail ashy white, the outer web in the old birds edged with white. Legs orange, with a brownish tinge. The duck is deep brown on the head, with two light-brown stripes on each side, dark-orange bill, having a bean at the tip and a dark blotch on the upper part. The back is light brown marked with green; wings grayish brown mixed with green and having the purple ribbons across them; the neck is light brown, with dark-brown penciling and no ring; breast dark brown penciled with darker brown; tail brown; legs orange.

SHADE IN WARM WEATHER

The lack of shade in summer is often a hindrance to egg production. Where the hens have a free range in the orchard they can comfortably provide for themselves; but there are many yards in which there is no shade. Shade is very easily and cheaply provided. A piece of muslin drawn over one corner of the yard, over the top of the fence, or fastened to stakes, is all that is required; or, if preferred, brush may be used. Anything that serves to shield and protect the hens against the hot, scorching sunshine of midday will keep away much suffering. Not only shade, but cool water and a diet of grass assist in promoting health and production.

INVIGORATING THE FLOCK

No stock so quickly runs out and deteriorates as poultry. To keep up a fair standard a new and pure strain of blood must be infused at least every second year. The skilful breeder, with care and patient breeding, keeps the fountain pure from which is to flow the stream that will enrich every barnyard flock, and without which infusion the best stock of mongrel fowls will run back into a weak, deformed race in a few years, like the inferior birds that we often meet with among unenterprising farmers, which are really a reproach to the breeder and a positive detriment to the farmer's success.

POULTRY-HOUSE FLOOR

Of the many cheap floors which may be laid down in a poultry-house one that is firm and hard should be preferred. First dig the ground out to a depth of twelve or fifteen inches, and then fill up half of this with broken bricks, gravel, coarse stones or slag, which must be well beaten down. A compost of coal ashes, fine gravel, quicklime and water must next be made, mixed well, and spread over the other, so as to raise the floor to the required height above the ground. This, when hardened, will be a perfectly dry floor, one upon which water will not stand, and yet it will be hard and firm in its nature, as well as warm and comfortable. It is easily cleaned, inexpensive and in every way the best and cheapest floor that can be made. Ashes or soil must always be spread thinly over it, as they should be upon every kind of floor, and renewed every day or two. In some places the floor simply consists of a few inches of fine, dry dirt, and where the ground below is porous and warm there is no objection to this; but it must be raked over every day, and entirely renewed every few months, or the air will be vitiated.

SECLUDED NESTS

The nests should be made as dark and secluded as possible, as this is somewhat natural. Open, light nests cause the hens to be disturbed by each other, and also induce the habit of eating eggs, which is a vice to be avoided. Seclusion and quiet surroundings are preferred by the laying hens.

DO EGGS PAY IN SUMMER?

If eggs are higher in winter it is because they cost more in that season. Eggs cost little or nothing in summer if the hens are on a large range, and eggs will then pay, even if prices are low. If eggs are thirty-five cents a dozen the real food material costs the consumer about twenty-five cents a pound in the winter season, but when eggs are fifteen cents a dozen the consumer gets about two and one fourth pounds of food material for twenty-five cents, or according to ruling prices. But in both cases the farmer sends away the same proportion of material from his farm, and whether the hen picks it up herself, or is given her share by her owner, the loss of that much value from the farm occurs. The hen on the range, however, utilizes materials that the farmer cannot sell. A dainty young weed, a piece of bone, insects, grass, seeds and refuse thrown away are all made to do service by the hen in converting them into eggs. It will pay in winter to save food by keeping the hens warm. If they are not well sheltered more corn will be necessary to heat their bodies. Shelter is not really food, but it serves to economize in its use by preventing waste of corn in the form of heat. In summer they must be given cool quarters and little or no grain, compelling them to work for what they get.—The Poultry-Keeper.

INQUIRIES ANSWERED

Crossing Non-sitters.—G. S. W., Joliet, Ill., writes: "The White Leghorn and Black Minorca are both non-sitters; what kind of birds would be the result of crossing these breeds?"

REPLY:—There is nothing whatever to gain. When different non-sitting breeds are crossed the progeny usually are sitters. When breeds are crossed the result is mongrels in two or three years.

Space Required.—"Subscriber" writes: "Would chickens require much space the year round if turned on one half of their space the first six months, and then on the other half the next six months?"

REPLY:—About a hundred hens could be kept on an acre fenced if green food is grown on one side at a time, the fowls turned on the food when but a few inches high. They would require some grain, also.

Coops and Incubation.—F. H., Piper City, Ill., writes: "Give a good method of making a coop.——Is it better to hatch chicks with an incubator than with hens?"

REPLY:—The "best" depends upon the cost. A good coop can be made eight feet high in front, six feet at the rear, ten feet square, with tarred-paper roof; much depends upon preference and location.——Hens are probably better for incubation in summer, and incubators in winter, some experience being required to succeed with incubators.

BEST FOR THE BOWELS

If you haven't a regular, healthy movement of the bowels every day, you're sick, or will be. Keep your bowels open, and be well. Force, in the shape of violent physic or pill poison, is dangerous. The smoothest, easiest, most perfect way of keeping the bowels clear and clean is to take

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Farmers Your address on a postal will bring you my circular. JOHN J. GREINER, Ogden, Utah.

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QUERIES
READ THIS NOTICE

Questions from regular subscribers of Farm and Fireside relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Cistern in Clay Soil—Walling a Spring.—A. M. L., McMechen, W. Va., writes: "Describe the best method of constructing a cistern in clay soil.——How should a spring be walled up so as to best secure cleanliness and purity?"

Reply:—The best method is to wall it up with brick and carefully cover the interior surface with cement plaster.——Wall up the spring with large vitrified sewer-pipe.

Sowing Blue-grass Seed.—I. J. G., Freeport, Ohio, writes: "When is the proper time to sow blue-grass seed? Can it be sown with the grain-drill, like timothy-seed, when one is drilling in wheat? How much seed to the acre to get a good set, and where can the seed be had? I am thinking of seeding twelve acres of wheat to blue-grass this fall."

Reply:—The best time to sow blue-grass seed is very early in the spring. Sow it broadcast on the wheat with a good grass-seed sower. About three bushels to the acre is a good quantity to sow. As it takes two or three years for blue-grass to form a heavy sod, it is best to sow with it two or three pounds to the acre of white, or alsike, clover. Nearly all seedsmen sell blue-grass seed. Buy only sound, pure seed, free from weed-seed.

A Smoke-house.—I. G. J., Oakwood, Ill., writes: "Please give an idea how to build a smoke-house. I wish to build one about eight feet square."

Reply:—For a foundation lay up a solid brick or stone wall with cement mortar, starting eighteen inches below the surface of the ground. It is best to build the house of brick, but a good one, at less cost, can be made of lumber, using matched weather-boarding for siding. Build it rather tall, to get more room for hanging the meat and to have it far enough away from the fire while smoking. Make the roof tight, as well as the siding. Put in one door of convenient size. No window is needed. The floor should be of cement, both rat and fire proof. An old iron kettle with a few inches of earth in the bottom is a convenient and movable fire-place.

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the Farm and Fireside answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to Dr. H. J. Detmers, 1315 Neil Avenue, Columbus, Ohio.

Note.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Looks Like a Case of Pyemia.—P. H. T., Renwick, Iowa. What you describe looks to me like a case of pyemia, although tuberculosis is not excluded by your description. The abscesses in the arm-pits very likely have their source in suppurating auxiliary lands. The only advice I can give you is to ive the cow examined by a competent veterinarian.

Amaurosis.—H. D., Port Arthur, Ont. What you describe appears to be a case of maurosis, or blindness resulting from atrophy, paralysis, or probably in your case om an imperfect development of the optic erves. If your calf, now six weeks old, was rn blind, as must be presumed from your atements, arrested or imperfect development of the optic nerves, or possibly of the etina in both eyes, must be looked upon as the cause. The disease or defect is incurable, notwithstanding that the eyeballs may present a perfectly healthy appearance.

Fatty Degeneration.—J. V. H., Mount Pleasant, Ohio. There can be no doubt that your pug-dog, eight years of age, suffers from fatty degeneration of the heart and of other organs, and possibly in combination therewith from gout. I am sorry that I have to consider the case as a hopeless one. Fatty degeneration is a disease to which most pug-dogs succumb, especially after having reached an advanced age like yours. Eight years, it is true, is not an old age for most other dogs, but for a pug naturally inclined to lay on fat, accustomed to good living and disinclined to take much exercise it must be considered old age. For a younger dog a light diet and an abundance of exercise, if necessary of a compulsory character, might be advisable and effect more or less improvement.

A Respiratory Disorder.—E. P., Maple Lake, Minn. Your cow suffers from some respiratory disorder, but whether it is tuberculosis or something else cannot be decided upon the only two symptoms you mention, because both of them—discharge from the nose and coughing—are attendants of nearly every disease of the respiratory organs.

Septic Cellulitis.—H. T. L., Lloydsville, W. Va. What you describe is a case of septic cellulitis. In most cases the septic poison enters either through a small lesion on the pastern, as is often caused by interfering, or through sores, so-called scratches in the bend of the pastern and coronet joints. If in your mare the disease had its seat in the fore leg, and the abscesses now brought to healing caused an opening of the knee-joint and a discharge of synovia, or joint-water, and the knee-joint is now stiff or immovable, and, as you say, "stands forward about two and one half inches," I do not think that anything can be done to restore that crippled leg to its former usefulness.

Garget.—W. G. M., Springfield, Mo. Your cow very likely is a better milk-producer than any you ever had, and therefore requires more frequent milking than twice a day. Make it a rule to have her milked at regular intervals at least three times a day, and see to it that the milking is done each time with clean hands and in a thorough manner. If you comply with this I feel confident you will experience no more trouble, and besides will get more milk than ever before. Since your cow has once been suffering from puerperal paralysis, a disease which as a rule attacks only the best milkers, especially when receiving an abundance of highly nutritious food, I advise you to keep her on a rather light diet the last six weeks before calving, and to see to it that the premises in which she is kept when coming in are kept very clean and free from rubbish and manure.

A Cutaneous Eruption.—E. D. W. K., Ogdin, W. Va. The cutaneous eruption on the extremities of your horse making its appearance every spring is probably due to indifferent, or lack of, grooming of all such parts on which the "sun and moon don't shine," and to feeding too much heavy food. See to it that the horse is well groomed on the lower surface of the body, between the legs and in the bends of the joints, not with a currycomb, but with a good brush and a piece of a woolen blanket or with a rag of a similar fabric, and then keep the horse, in the spring, at least, on a lighter diet, especially when there is but little work for him to do. If the eruption has not yet disappeared, attentive grooming and a mild physic, or for awhile a very light diet, will probably effect a cure.

Bleeds from the Nose.—L. O., Hardman, Oregon. It is rather strange that your cow bleeds regularly from the right nostril every third night for twenty minutes since April, because hemorrhages of that kind seldom take place with such wonderful regularity. Bleeding from the nose (epistaxis) may be due to various causes, and may have its source in different parts of the respiratory passages; for instance, in a nasal cavity, in a frontal or maxillary sinus, or further back in the laryngeal region, or even in the trachea. The blood may also come from the lungs; but in that case it will be more or less foamy, and you do not say that it is. As to the causes, they may consist in an anomalous condition, a degeneration and subsequent rupture of one or more blood-vessels anywhere in the mucous membrane of the respiratory passages, in the presence of a malignant or semi-malignant tumor or growth, or in existing morbid processes causing an opening of blood-vessels somewhere in these passages. Consequently, the first thing necessary is to ascertain by a careful examination the cause and the seat of the bleeding, and then a cure is possible only if the latter is accessible and the former of such a nature that it can be removed, for the removal of the cause constitutes the treatment.

Let Well Enough Alone.—W. K. L., Hermitage, Cal. If the cut in the leg of your colt, just above the fetlock, extended into the bone, and if the colt immediately after the accident walked on the front of his hoof, with the lower joints flexed to the utmost, the extensor tendon undoubtedly has been severed; but as the accident happened in March, as everything now has healed, and as the colt is now able to gallop as well as ever, a union between the severed ends of the tendon has been effected, and this union, if not perhaps making the tendon quite as strong as if the same had never been injured, will constantly gain in strength, so that in time, say within six months, the tendon will be as strong as ever, provided the same is within that time not overburdened by too severe exercise. As to the swelling, the same can never be entirely removed, and applications of liniments, especially of sharp liniments, will be apt to permanently increase it. In the course of time, however, a gradual decrease will take place, which may be somewhat hastened by judicious bandaging with woolen flannel bandages. Still, unless the colt is very gentle, this treatment will be somewhat troublesome, for the bandages must be renewed at least twice a day, and the bandaging must be kept up for several weeks. Gentle rubbing with the hand, say several times a day, may also have a favorable effect. Beyond this, I say, let well enough alone.

Lameness and Periodical Ophthalmia.—I. M. B., Rockford, Ill. As to the lameness of your mare, your veterinarian was probably right when he located the seat of the same in the foot, and not in the shoulder, notwithstanding the shrinking (atrophy) of the muscles. The latter will show more or less shrinking in any chronic lameness, no matter where the same may have its seat. The nature of the lameness, however, is not revealed by your statements, which really give no description whatever of the characteristics of the lameness enabling a diagnosis. The eye disease you describe is evidently periodical ophthalmia (so-called moon-blindness), a disease which finally will terminate in blindness and must be considered as incurable. The disease also very often makes its appearance in the second eye either before or soon after the eyesight of the eye first attacked has been destroyed.

Mangy Cattle.—F. L., Plains, Kan. You cannot free your cattle from mange, or itch, as you call it, by simply sprinkling them with "sheep-dip," because that method of application lacks thoroughness. A good and thorough way is to wash all the cattle, not only those that show plain symptoms, but also all others that do not yet show plain symptoms, first most thoroughly with soap and warm water, and then, before they are perfectly dry, with a good tobacco decoction, or with a sheep-dip principally composed of a tobacco decoction. The washes are best applied with a good stiff brush, because it is very essential that the fluid everywhere penetrates the coat of hair and is brought in intimate contact with the skin. After the washings, which at this season of the year at least may be made outdoors, the washed cattle must be kept on non-infected premises, and not in infected stalls or stables, which latter must not be used again until they have been thoroughly cleaned and disinfected. In about five days after the first wash the washing with the tobacco decoction must be repeated. If the herd of cattle is too large to wash the same in one day, the washed and the unwashed animals must be kept separate and not be allowed to mix.

Possibly an Actinomycom—Long Period of Gestation.—C. McF., Arapahoe, Neb. The enlargement in the face of your yearling colt is either an actinomycom or is produced by some other malignant or semi-malignant morbid growth, or tumor, in the nasal cavity or maxillary sinus. Before any advice concerning treatment can be given the nature and the exact seat of the morbid process must be ascertained. If a careful examination reveals the presence of a morbid growth, or tumor, of a semi-malignant character, everything depends upon it, whether it is, or can be made, sufficiently accessible to admit a radical extirpation. If it should prove to be a carcinoma, or cancer, or an inaccessible tumor of any kind, any treatment will be in vain; and if it is found to be an actinomycom having its seat in the jaw-bone, the much-advertised iodine of potassium treatment may be given a trial; but if it is done it will be best not to expect too much. The term "big-head" is applied to almost any enlargement of the head, no matter what the cause may be.——According to your statements the period of gestation of your pony mare will be about fifty-nine weeks, and therefore closely approach the longest on record, which, to my knowledge, is fourteen months. Please report the outcome.

Colt Lame in All Four Feet—A Blind Mare—A Large Abscess.—J. E. M., Armour, S. D. If your colt, yet a yearling, has ring-bone on all four feet, the probability of the same ever getting free from lameness or growing up to a useful horse is a very slim one, no matter what the treatment may be.——As to your mare, the lost eyesight cannot be restored, but the large abscess, or abscesses, on her left side may be brought to healing. First the abscess, or abscesses, probably communicating with each other, must be carefully but thoroughly probed and explored, for they very likely are of a fistulous character, and it must be ascertained where they lead to and what it is that prevents the healing. If it is a foreign body it must be removed; if it is a diseased rib or cartilage it must be brought to exfoliation by removing the diseased portion either with the surgical knife, by other instruments or by cautery, as the condition of the case will indicate. If the healing is merely prevented by insufficient drainage and by the bottom of the abscess being lower than the opening, perfect drainage must be secured, and one or more lower openings must be made low enough to drain every portion of the abscess. If all this has been attended to, the cavities of both abscesses, provided the inner surface is not callous or degenerated, for in that case the callous surfaces must first be destroyed by means of caustics, may be filled up with absorbent cotton saturated with a two-per-cent solution of either carbolic acid or creolin. This dressing must be renewed twice a day. If with this treatment the cavity is in a few days reduced to less than half its former size, it may be taken as an indication that the same treatment should be continued until a healing is effected, provided the lower openings are not allowed to close until no more cavities are existing. That the exterior of the abscess must be kept clean, as in all cases of like nature, should not need any mentioning.

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THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

THE MAN WITH THE BALLOT

Here is a piece of paper, nothing more,
Yet big with destiny, for it may be
The tiny weight that brings the balance down
On one side or the other. He who holds
This little slip may well drive from his mind
All prejudice and bitter party hate
Which has been handed down from other days.
Why should we live back in the dead past with
Old musty issues—relics of dead men
Whose loves and passions are forgotten now.
Our hopes are in the future—with the new
And budding promises which mean so much
To those who toil and falter in despair.
Let us not use our vote to pay some score
Of mean and selfish hatred, but wipe off
The baser debts upon the party slate.
And with faith in human rights be bold
To halt before the ballot-box, and say,
"This paper is a promissory note
For human liberty, and you must pay."
—Rural New-Yorker.

* * *

Let each day add a new grace and beauty to your mind. Be not content with your past achievements, but be ever zealous to glorify your past by the new deeds of the present. Master some new fact; make it a part of your inner consciousness; see it in its various lights and shades, and some day it will burst upon you in the radiant light of clear and beautiful truth. All facts and truths are old; they are scattered about us like chaff, and like chaff they remain until the individual is fitted to perceive them in all their glorious radiance. They are free and not free. Free to the surrendered humble soul willing to receive from whatever source the message divine, but locked to him who denies it entrance. But it takes conscious effort to so fit ourselves that we may receive the highest and best. Daily must we think and study and learn; daily must we commune with Nature till old things become new; that is, are seen in a new light.

Emerson says, "No man can learn what he has not preparation for learning, however near to his eyes is the object. A chemist may tell his best secrets to a carpenter, and he shall be never the wiser—the secrets he would not utter to a chemist for an estate. God screens us evermore from premature ideas. Our eyes are holden that we cannot see things that stare us in the face, until the hour arrives when the mind is ripened; then we behold them, and the time when we saw them not is like a dream!"

* * *

A lecturer to be successful in her work must be a constant student. She ought to have a profound knowledge of human nature, that she may be able to give to each member the work he is best fitted to do. It is useless to use arbitrary methods in dealing with grown-ups. Their minds and habits are already shaped, and unless the lecturer has a strong personality better results will be achieved by assigning work that will lead to as harmonious a development of the individual as is possible than to try to shape an ideal. Each one may and should be led into the wide field of thought; but it takes tact and patience to do it. A bright lecture from some near-by student may open up more avenues of thought than a year of patient toil on the part of a member; the new way of stating an old truth, the mystery that surrounds a stranger, all contribute to add interest to a theme. It is quite as much the duty of a lecturer to see that new thought is infused into the grange as that the members work faithfully.

* * *

A hard-working grange seldom becomes dormant. There may be outside adverse influences, the grange may be small, but so long as there is a good program the members will attend. By a good program I do not mean that it shall necessarily be an elaborate one. Often the best meetings are those where an informal discussion of some topic of particular interest to members crowds out the remainder of the work. We have found it so in our grange. However, we haven't a bickering, jealous member in our local lodge.

A small grange? Yes; but we are immensely happy in our work. Small granges, where the real work of the tastes and tendencies can get together without jar or discord, have their compensations. I believe that some of our small granges, where the membership means something to each individual member, are doing as much to develop the individual as are many of the larger granges, where the real work of the grange is carried on by a few faithful ones. Let not the small grange be discouraged. Its roll-book may not be large, but the work it can do is limitless. It is inspiring to know that though small in numbers it contributes its share to the great work being done, just as the smallest rivulet helps to swell the sea. It is the individual that counts—the trained, alert person ready for any emergency—and this training can be gotten in a small grange as well as a large one. Do not lose hope if you are small in numbers, but so develop those you have that they may be a power in the world. It is not the masses that make a century famous. China has her millions of human souls, yet even to her contemporaries scarce a dozen are known. It is the strong, heroic soul that shines through all time that adds a luster to this or that cycle of years. Take the circumstances as you find them, and carve from them success. It is in your power to do so. The same qualities essential to the success of an individual are essential to a group of individuals—industry, watchfulness, integrity, faith and courage. Do not wait for favorable opportunities. Make them. Though you may not number more than twenty members, if they are earnest and watchful their combined efforts will accomplish more than a hundred would whose influence is not so combined and available. After all, there are worse calamities than small numbers.

* * *

I want to urge upon every grange the necessity of founding a library. You may not be able to get many books at first. So much the better; you will then use the ones you have. Better far that they be worn by overusage than shelf-worn. You will be surprised how rapidly your library will grow. Once accustom yourself to referring to some appropriate work for any question that arises in your mind which you cannot answer, and books will become as necessary to you as ribbons and laces now are. Let the necessity be felt, and means will be forthcoming to supply that necessity. It is indeed a dark blot on our boasted intelligence that we have not sooner felt the necessity of having in each neighborhood a good working library. How many times questions arise that if they could be answered would lead us into a broad realm of knowledge. But left unanswered, the mind, lacking other food, comes back to the present. Constant pruning of the buds of inquiry develop a stunted and miserable mental growth, just as constant pruning of new buds destroys a plant. How true the German adage:

"A millstone and the human heart are driven ever round;
If they have nothing else to grind they must themselves be ground."

Let children breathe the atmosphere of books. Let them acquire that expression of thought and poise of bearing that contact with good books give. Let them read biography, that they may emulate the example of the brave souls who have triumphed over the same difficulties the children meet. History will give them a keener insight into the present. Poetry will develop the spiritual nature. The country child and grown-up require this companionship. They, more than any other, can grasp the deepest truths, because they daily face the richest mines of truth.

Begin now to build up a library. Some of you will want to study political economy in your grange this winter. Get works of reference on that subject. I have found more amateur students of that science among farmers than other classes. Their line of thought is necessarily directed in that channel. Few indeed are they who are not fascinated by the study. Most delight in ancient history. Gibbons' "Decline and Fall of the Roman Empire" will throw new light on our own social conditions.

Let there be a wise selection of fiction. Under the hands of a skilful librarian or lecturer many who could not otherwise be reached may become earnest students through reading some choice fiction. What reader of Scott's novel does not want to inquire further into the times with which his novels deal? "The Egyptian Princess," with its thrilling narrative, will lead the philosophically inclined into the study of some of the ancient philosophies. Let a large share of the work be fiction for the young. In this great care should be exercised. Too much of this class of reading is too silly for a normal child. A really good book for children must command the respect of mature minds. Children are not so ignorant and babyish as we are apt to think them.

We are now preparing a list of books, and will publish them in a later issue. In the meantime agitate the subject of a library. In this the brunt of the work will fall on two or three. It is useless to wait for all to get ready. The millennium is not yet here.

We would earnestly urge our readers to read the "Twentieth Century City," "Our Country" and the "New Era," by Dr. Strong. These are books that will convey to the reader some idea of our nation, its perils, hopes and weaknesses. "The American Commonwealth," by James Bryce, M.P., is valuable because of its comprehensive insight into our American institutions. It is a work that no American citizen should be without. Its price, $4.50, makes it an impossibility to some. Any well-chosen public library will have it. Get it and read it.

* * *

"Character is the sandy footprint of the commonplace hardened into the stone of habit; it is the complexity of daily tempers, judgments, restraints, impulses, all focused into one master-passion acting with the rapidity of an instinct."—R. S. Moulton.

Good manners is a golden key that will unlock the grimmest door. To the one possessing it it is worth a fortune. How many naturally bright people mar their social and business life by a curt expression, an arrogant, insolent manner! How much is won by a sympathetic word, a courteous bow and smile, a polite raising of the hat, the giving up of a seat to another, the thousand and one small things that one may do without sacrificing a jot of dignity or personal worth! Politeness is the best policy, just as honesty is said to be the best policy. There are higher considerations than policy, to be sure, and he who is truly polite or honest must be so on higher grounds than mere policy. But even regarding them in the baser light one must see that it pays. "Smith is such a grump! I will go over and deal with Brown," says the man with money to spend. "Smith carries as good goods and sells as cheaply as Brown, but he acts as if he was conferring a favor on me by dealing with me. Brown acts as if I was conferring a favor on him by dealing with him." So, although Brown is farther away, he gains patronage by his courtesy. A hardware dealer in a poorly equipped, dark room, two blocks from the business part of town, had a bigger trade than other stores on the principal business street. Why was it? Because his patrons could rely absolutely on his word, and he was uniformly courteous and polite to the child with a nickel or the man with dollars to spend. To-day he occupies one of the finest business rooms in his town, and commands the best trade. Others may have been as honest, others sold as good goods, but they had not that fine courtesy and geniality that distinguish the gentleman from the boor. It lies within the power of every boy and girl to acquire a courteous bearing. The acquisition will richly repay the effort made to acquire it. Many otherwise good traits are marred, many opportunities lost by a brusqueness and coarseness of manner. See to it that you do not stand in your own light by such manifestations of a coarse nature.

* * *

"To Vote as We Pray."—The Rev. C. D. Crane, of Portland, Maine, thus explains why so many of Maine's officials permit the illegal sale of liquor: "They know that we will continue to vote as we pray—that is, with our eyes shut."
—Public Opinion.

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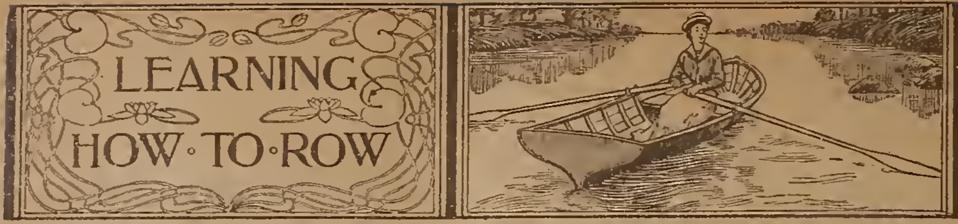

By P. W. Humphreys

The first elements of the art are easily mastered. One who is familiar with extensive rowing-lessons that are usually given to beginners at this season on the Great Lakes claims that "any little girl who has water to row on, a boat to row in, and a father or brother to teach her, can learn to row as easily and quickly as her brother, and she will find the exercise not only delightful as a pastime, but strengthening as a health measure." She then gives directions to help others master the art. So far as canoeing goes, she says that Canadian girls yield the palm to no one. But in rowing she acknowledges that honors are even with the American girl.

All around the Great Lakes, on both sides of the line, there are hundreds of young women who can handle an oar as well as any mere man on the continent. They may not be able to make as much headway, but so far as skill and unison are concerned—always provided the costume be suitable—there is not really so very much to choose between the oarsmen and oarswomen. The girls have the added advantage of looking pretty. It has never entered the wildest imagination to speak of a sculler wearing a sleeveless guernsey and abbreviated tights, and spurting up and down like a pair of shears in his cockle-shell, as being an object of beauty. Put eight of him together and there is pleasure in watching the rise and fall of the sweep-oars and the skim of the racing-shell over the water. But individually each member of the crew looks better in golfing costume or tennis-flannels.

Nearly every Canadian girl living near the water or spending her summers there learns to row as a very small person indeed. The first time she steps into a boat by herself she is shown how to do so properly. The boat is drawn up sideways to the landing-place, be it a dock or a few logs tied to the shore. Her father holds it steadily, and tells her to step directly in the center of the boat, to keep her balance and drop quietly into her seat. After a few times she is able to seat herself without endangering the lives of the other people in the boat. After a little she pines to learn to row. Her mother will doubtless object, but the father will be anxious to see how the little maid can manage.

The First Lesson.—This is an interesting process, and one in which the father and mother and brother all take a hand; and it is not an unusual sight on the lakes to witness one of these family affairs in giving the first lesson to the little girl. She is seated on the center seat, with her face toward the stern. Her small brother sits on the seat beside her and takes the other oar.

Both oars ought to fit easily in row-locks, and it is much easier to handle them at first if the oars do not lap over each other. Short oars, the handles of which do not nearly touch when brought together, are best for beginners; otherwise there are pinches and bruises. Our girl gets much advice.

"Lean forward when I do," snaps her brother, who disapproves of the budding new woman.

"Shoot the handle of the oar straight out in front of you," says her father.

"Do be careful, darling!" No need to tell whence this reminder.

The little girl does as she is told, after the manner of nice little girls, and is mildly surprised to find the blade of her oar away behind her.

"Now drop it into the water. Not so far; up a little yet. There, now, pull the handle toward you."

This is more of a struggle. The water has become a very powerful element. Of course, she dips deeply; and, of course, her brother is as sarcastic as a thirteen-year-old can be.

When the stroke is made she is breathlessly ready for another. After a few more strokes the wise father will persuade her to rest for the day. She will not be in the least ready to do so. Indeed, she is most likely anxious to try both oars. But the summer days are long when one is young, and there are plenty more of them.

She will try again to-morrow, still using both hands to the oar. It will not be until her wrist is so much stronger that she can manage the oar with one hand. In a few days this half of rowing will be quite easy. Then will follow the laughable efforts of attempting to row with both oars—laughable to the onlookers, at least, perhaps quite the opposite to the learner, who wonders if it ever will be possible to master the art; but like the lessons in wheeling, the "knack" is soon acquired, and then come the "extras."

Using Both Oars.—Rowing, unlike many other sports, is an accomplishment easy of acquirement, and once learned never forgotten. Our girl learns by her second day to pull in harmony with her brother. He denies this, grumpily, but the fact remains.

The "baddest" quarter of an hour comes when she tries two oars all by her own self. It is just a little trick—that of being able to work both oars at the same time—quite ridiculously simple when you get it; but one may flounder on for days without catching the trick. The father is much pleased to see that his little maid is observant and quick enough to do so the first day. It requires watching two ways. First, to put both oars neatly in the water at the same time. Next, to make the strokes simultaneously.

Still a third tug of war is ahead of her. That is when she must learn to keep time with the pair of oars in front of her. She is probably a big girl by this time, because the small person sticks to one oar unless she is very strong indeed. I have known young Canucks of eight quite expert oarswomen. I know one of that age who feathers her oars like a champion sculler. But children living near the water will use an oar from the time they are able to sit up and get a fat hand half way around the handle. It is only a matter of strength of arm until they can use both oars.

There are still many things to learn after our girl has become able to keep time with herself and with the oars behind and in front.

Learning to Feather.—There is the highly ornamental and useful accomplishment of being able to feather her oars. It is likewise a trick, and consists solely of bending the wrist. When one brings the oar out of the water it is in a slanting position. Now in pushing it back to begin another stroke one has frequently to do so against the wind or tossing crests of waves. A simple expedient, to avoid the added exertion, is to take the oar back horizontally rather than perpendicularly. This our girl will be shown, so that should she be out in rough weather she will know how to get the most result with the least expenditure of energy. She will thus also avoid splashing the other occupants of the boat. Feathering is likewise extremely pretty, and is the delight of a young oarswoman. It is done simply by bending the hand backward until it is at right angles with the wrist. It soon becomes mechanical.

How to Back Water.—Another thing to be learned is to back water. Here are two motions involved. The first, to row with one oar and back water with the other. This is as simple as making your thumbs go opposite ways, once the girl learns to remember that while one hand goes forward the other goes backward, exactly reverse. It is expedient to keep time with this action, as well as with the plain rowing. The other is to back water with both oars. This often consists in merely keeping the oars in position; the water does the rest. Otherwise it amounts to a strong pushing of the oars back through the water, reversing the stroke.

This is really concerned with steering of the boat, which, when done by the oars, is a matter requiring some carefulness. The regular thing where there is land in sight, and one has no rudder, is for the rower to head the boat right, mark what point of land is seen over the stern, and keep the stern at the point of judicious handling—harder rowing with the right than the left, or easier with the left than the right. This is much better than stopping one oar. When you resume the oar it is likely to conflict with the oar behind or the one in front.

The management of a row-boat requires experience and presence of mind, as does the management of any other craft. The girl will have to learn how to get the boat away from the dock by well-directed shoves with her oar; how to bring it up neatly alongside when she lands; how to avoid "catching a crab;" how to use long oars and short oars, and so on.

After learning all this there are still several points to keep in mind. One must learn to bend from the waist; to keep the shoulders erect, the arms down; to press well against the foot-rest as the oar is pulled back, thus letting your whole body do the work instead of the arms alone; to expend the force on the stroke; to pull evenly and with long strokes; to balance the boat properly, or see that others do.

All these different facts may be impressed upon the learner while teaching how to "feather" and "back water," and the other "accomplishments" that follow the lessons in "plain rowing;" but it is well to make a note of these little details of position, etc., and keep them in practice during every lesson.

The Rowing Costume.—The elaborate "boating costumes" usually seen at fashionable watering-places would be considered quite out of place where rowing is studied as an art and practised for the pleasure and the healthful exercise to be obtained. The best young oarswomen around the Great Lakes and about the numberless small lakes and rivers throughout the whole continent are usually sensibly costumed.

A thick skirt is better than a cotton one, not too full, and rather short, in case the boat should leak, as so many of them will if they get half a chance. Nearly every girl who rows knows that a loose waist is absolutely indispensable. Nor should there be anything tight-fitting underneath the waist.

Her head-gear should be of the kind that can be securely fastened on. Girls who go regularly in for sculling—and their number is increasing—wear the manly "sweaters." Others keep to a cool shirt-waist, with a blazer to put on when resting.

Health-giving Properties.—Nobody has ever questioned the health-giving properties of rowing. Its usefulness for straightening stooped shoulders is so thoroughly understood by gymnasium directors that all good gymnasiums are fitted up with imitation boats—that is, a sliding seat pulled to and fro by means of rubber belts with exactly the same motion as rowing—for use in the winter-time. It strengthens the muscles of the upper arms and makes the wrists steady and strong.

Add to this the amount of fresh air one takes in, and the fact that rowing will keep a chill away. It is a fascinating exercise to send one's craft shooting straight as a die through waves and calm, to leave a trail of swirling water in the wake of the boat, to guide it by ever so gentle a stroke, to bend backward and forward in harmony with the oars, to feather the oar and watch the silver drops falling into the silver water, to row with even, steady strokes on and on past lighthouse and buoy into the twinkling harbor—these are some of its joys. And when to its joys are added the strengthening of the muscles and the building up of good health it is not surprising that the girls as well as the boys are enthusiastic over the season's rowing-lessons.

WORK-BOX AND SPOOL-CASE

An eight-sided piece of cardboard for the top and also one for the bottom of this article, measuring six inches across, form the foundation. Two of each will be necessary, being covered on each side with silk and overhanded together or fastened with library-paste and put under a heavy weight. The sides are one and one half inches high and one inch longer on each end than the side of the octagon, and rounded at the edges. These pieces should be of a lighter quality of cardboard, and should then have tin eyelets put in by a shoemaker. Sew them to the bottom of the box, and catch them by a few stitches at the top, then lace them together with a silk cord, catching a spool of thread between every one.

The lid is finished with a heavy cord around the edge and a rosette of ribbon on top. It can be made entirely of one shade of silk, or the inside of a brighter or more delicate color than the outside. It is a nice way in which to preserve a favorite dress, waist or necktie.

B. K.

POINT AND DIAMOND LACE

Abbreviations.—K, knit; n, narrow; o, over; p, purl; p 2 tog, purl 2 together.

Cast on 45 stitches. Knit across plain.

First row—K 5, n, o twice, n, k 8, n, o twice, n, k 8, n, o twice, n, k 4, n, o twice, p 2 tog (leave thread up), k 1, n, o twice, k 2.

Second row—K 3, p 1, k 1, n, o twice, p 2 tog, k 7, p 1, k 11, p 1, k 11, p 1, k 6.

Third row—K 3, n, o twice, n, n, o twice, n, k 4, n, o twice, n, n, o twice, n, k 4, n, o twice, n, o twice, n, k 2, n, o twice, p 2 tog, k 6.

Fourth row—K 5, n, o twice, p 2 tog, k 5, p 1, k 3, p 1, k 7, p 1, k 3, p 1, k 7, p 1, k 3, p 1, k 4.

Fifth row—K 1, n (o twice, n, n, o twice, n, n, o twice, n), repeat three times, n, o twice, p 2 tog, k 2, o twice, n, o twice, k 2.

Sixth row—K 3, p 1, k 2, p 1, k 1, n, o twice, p 2 tog (k 3, p 1), repeat nine times, k 2.

Seventh row—K 3, n, o twice, n, n, o twice, n, k 4, n, o twice, n, n, o twice, n, k 4, n, o twice, n, n, o twice, n, k 2, n, o twice, p 2 tog, k 9.

Eighth row—K 8, n, o twice, p 2 tog, k 5, p 1, k 3, p 1, k 7, p 1, k 3, p 1, k 7, p 1, k 3, p 1, k 4.

Ninth row—K 5, n, o twice, n, k 8, n, o twice, n, k 8, n, o twice, n, k 4, n, o twice, p 2 tog, k 1, n, o twice, n, o twice, n, o twice, k 2.

Tenth row—K 3, p 1, k 2, p 1, k 2, p 1, k 1, n, o twice, p 2 tog, k 7, p 1, k 11, p 1, k 11, p 1, k 6.

Eleventh row—K 37, plain n, o twice, p 2 tog, k 12.

Twelfth row—Bind off 7, k 3, n, o twice, p 2 tog, k 38 plain. Begin at first row. Mrs. A. L. Howell.

OUR CHOICE

THERE are many white soaps, each represented to be just as good as the Ivory; they are not, but like all imitations, they lack the peculiar and remarkable qualities of the genuine. Ask for Ivory Soap and insist upon getting it. Ivory Soap is 99$\frac{44}{100}$ per cent. pure.

Any person wishing a copy of this picture may mail to us 10 Ivory Soap Wrappers, on receipt of which we will send a copy (without printing) on enamel plate paper, 14 x 17 inches, a suitable size for framing. THE PROCTER & GAMBLE CO. CINCINNATI.

"HE LOVES ME NOT"

I hate a woman who writes a book, practises medicine or delivers a lecture. I hate the prominent woman.—Max O'Rell.

Though I have toiled, I dreamed until to-day
Life was a sea of love, which surged my way.

And I have taken labor to my breast,
Though in my heart sweet joy has made its nest.

But now my books look down like grinning elves
And mock me from their places on the shelves.

Accusing emblems of an awful fate—
Why should I live, whom Max O'Rell can hate?

Oh, sister women, scattered through the land,
Women who toil with brain, or heart, or hand,

Come, let us find companionship in grief!
Man-of-Much-Talk—the mighty mongrel chief

Of Latin blood, and Irish name, and gold
American—alas! has he not told

The curious, listening world he loves us not?
Oh, bitter toil, whose end such woe hath wrought!

Though all mankind beside himself approve,
Of what avails it if we lose His love?

Would Paradise itself not seem a hell
To wretched women scorned by Max O'Rell?

Fling down, fling down the laurel and the bay!
Sadder to us than cypress-leaves are they,

Since in each hard-earned trophy of achievement
There lies the witness of our vast bereavement!

Oh, to do nothing, nothing! My heart thrills
With envy at the thought of imbeciles

Who sit in safe retreats, outside the ban
Of mighty Max O'Rell, the Much-Talk-Man.

Life, you would teach us wisdom in your schools,
Go to—go to—since Max prefers us fools.

—Ella Wheeler Wilcox, in New York Journal.

WHEN THE SELFISH WOMAN TRAVELS

"THERE is nothing so productive of selfishness as traveling," says the "feminine observer," and unfortunately the most apt pupil in the undesirable school is the woman who but frequently leaves her home, and when she does, considers that the fact of her having bought a ticket from Smithtown to Jonesville entitles her to every consideration.

On the Saratoga special such a character recently appeared, and with her two men, presumably husband and son, as the more harassed one of the two she addressed as "papa," while the younger and more rebellious member answered to the name of William. Now, papa and William would not have been a bit of a nuisance, for they actually seemed ashamed of the woman's actions; but as evil companions corrupt good morals, so did the continual nagging and prompting of this woman serve to make them behave in a manner that, to give them credit, appeared foreign to their nature. At Weehawken some mistake occurred about the drawing-room cars, and there were two tickets to show for every seat.

The cars were crowded; women with babies and men with bundles flocked in for their Saturday pilgrimage to the mountains, and then it was that this woman began to show off. "Now, papa, don't you stir!" she said, as the born politeness of the man was about to manifest itself by his giving up his chair to a tired woman who held a ticket for the same number. "Possession is nine points of the law; you've got your ticket and your seat; first come, first served, and if they can't get seats it's the fault of the railroad, not yours or mine!"

"But, Maria, you know we are only going to Cornwall, and William and I can just as well go into the smoker and let a couple of ladies have our chairs."

"That's just like a man; paid your money, I suppose, to stand! No, sir; just you sit still and let the conductor get 'em out of the muddle."

They were evidently used to Maria's little ways, for they sat still, looking very red and uncomfortable as they saw women gazing hopelessly about for a resting-place, holding in their hands tickets for chairs which were already pre-empted. Maria, however, enjoyed the fun. She positively beamed on the less fortunate individuals. A baby who made advances to her from the arms of its nurse, who was obliged to stand, was not encouraged in its demonstrations, as she did not care to share her easy position even with so small a creature, and by so doing relieve its tired caretaker for a little while, at least. When Cornwall was reached she left the train, followed by two sheepish-looking men who had not enjoyed their trip one bit; and as the train moved off she was heard to remark that it took a pretty smart railroad to get ahead of her.

P. W. H.

CLOVER AND PINEAPPLE LACE

ABBREVIATIONS.—Ch, chain; s c, single crochet; d c, double crochet; st, stitch.

First row—Ch 32, 1 s c in 8 st of ch, ch 5, skip 3, 1 s c in next, ch 5, skip 3, 1 double in same, make 2 more loops in same place, ch 3, skip 3, 1 double in next ch 3, 1 double in same, make 2 more loops, ch 1; turn.

Second row—1 s c, 5 doubles, 1 s c in first loop. Repeat twice, ch 3, 7 doubles in center of second loop, to begin pineapple, ch 3, 1 s c, 5 doubles, 1 s c in first loop, ch 5, 1 s c in first loop, make 2 more loops, ch 5; turn.

Third row—Make 3 loops, ch 5, make 3 loops in center of clover, ch 3, 1 double on first double of center ch 3, 1 double on next. Repeat from ch 3 to make 7 doubles, ch 3, make 3 loops in center of clover, ch 1; turn.

Fourth row—1 s c, 5 doubles, 1 s c in first loop. Repeat twice, ch 3, 1 s c between first 2 doubles. Repeat to make 5 small loops, ch 3, 1 s c, 5 d c, 1 s c in first loop. Repeat twice, make 4 loops, ch 5; turn.

Fifth row—Make 4 loops, ch 5, make 3 loops in center of first clover, ch 3, make 4 small loops, ch 3, make 3 loops in center of clover, ch 1; turn.

Sixth row—1 s c, 5 doubles, 1 s c in first loop. Repeat twice, ch 3, make 3 small loops, ch 3, 1 s c, 5 doubles, 1 s c in first loop. Repeat twice, make 5 loops, ch 5; turn.

Seventh row—Make 5 loops, ch 5, make 3 loops in center of clover, ch 3, make 2 small loops, ch 3, make 3 loops in center of clover, ch 1; turn.

Eighth row—1 s c, 5 doubles, 1 s c in first loop. Repeat twice, ch 3, make 1 small loop, ch 3, make 1 s c, 5 doubles, 1 s c in first loop. Repeat twice, ch 5, make 6 loops, ch 5; turn.

Ninth row—Make 6 loops, ch 5, make 3 loops in center of clover, ch 3, 1 double in loop, ch 3, make 3 loops in center of clover, ch 1; turn.

Tenth row—1 s c, 5 doubles, 1 s c in first loop. Repeat twice, ch 3, skip 1, ch 1, s c in next, omit ch, make 1 single, 5 doubles, 1 s c in loop. Repeat twice, ch 5, 1 s c in loop (6 loops), ch 5.

Begin at first row, omitting the 32 ch.

NAOMI MATTISON.

CRAZY POINT-LACE

Make a chain of 30 stitches.

First row—1 d c in fifth st of ch, 1 ch, miss 1 st, 1 d c in next st, ch 1, miss 1 st, 1 d c in next st, miss 2 st, 3 d c in next st, ch 2, 1 d c in same st, miss 2 st, 3 d c in next st, ch 2, 1 d c in same st, miss 2 st, 3 d c in next st, ch 2, 1 d c in same st, 1 ch, miss 1 st, 1 d c in next st, ch 1, miss 1 st, 1 d c in next st, ch 1, miss 1 st, 1 d c in next st, ch 1, miss 1 st, 1 d c in next st, miss 2 st, 3 d c in next st, 2 ch, 1 d c in same st, miss 2 st, 3 d c in next st, 2 ch, 1 d e in same st; turn.

Second row—3 ch, 3 d c in 2 ch, 2 ch, 3 d c in same 2 ch, 2 ch, 1 d c in same 2 ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, 1 d c on d c, ch 1, d c on d c, ch 1, d c on d c, ch 1, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, 1 d c on d c, 1 ch, d e on d c, 1 ch, d c on d c, 1 ch, 1 d c in second st of 4 ch; turn.

Third row—4 ch, 1 d e on d c, 1 ch, d c on d c, 1 ch. d c on d c, 3 d c in 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 1 ch in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 3 d c in same ch; turn.

Fourth row—3 ch, 3 d c in 2 ch, 2 ch, 3 d c in same ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch. 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c in third st of 4 ch; turn.

Fifth row—4 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 2 ch, 3 d c in next 2 ch, 2 ch, 3 d c in same ch; turn.

Sixth row—3 ch, 1 s c in 2 ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c in third st of 4 ch; turn.

Seventh row—4 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch. d c on d c, 1 ch, d c on d c, ch 1, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 s c in next 2 ch; turn.

Eighth row—3 ch, 3 d c in 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d e on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c in third st of 4 ch; turn.

Ninth row—4 ch, d c on d c, 1 ch, d e on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same, 3 d e in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d e on d c, 1 ch, 2 ch, 1 d c in same ch, 1 s c in next 2 ch; turn.

Tenth row—3 ch, 3 d c in 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 3 d c in 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 3 d c in next 2 ch, 2 ch, 1 d c in same ch, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, d c on d c, 1 ch, 1 d c in third st of 4 ch.

Repeat from first row for the length required.

Work 1 s c, 6 d c, 1 s c in 3 ch around the points.

A. L. A. B.

A COLORADO SUNBONNET

"Yes, ma'am; not only children, but grown people as well, wear sunbonnets. Just think of it! And you would, too, were you here in these summer winds and piercing rays of the sun, and went out camping on the Rockies, as we do. I laugh yet whenever I think of a visitor I had last summer. The visitor was a young man but recently married. Said he, 'I didn't want to come at all, but my wife begged me to, and ask you if you would sell her your bonnet for a dollar. We are to start for the lakes to-morrow, and she says your bonnet is just the thing for the trip; that it is the prettiest one in the valley.'

"I replied that she could have it, but that a dollar was far too much for it. But he insisted on leaving that sum.

"The bonnet was an old-fashioned Shaker revived, and was made from a soft, fine piece of tea-matting. The top was cut as one would cut any sunbonnet, then stitched along the edge, to prevent raveling. I then cut out the lining and stitched the two together, then turned carefully, so that the seam could not be discerned. I used for the lining and the trimmings a beautiful piece of light-blue silesia. I pinked a strip one and one half inches wide, with which I made a very full box-plaited ruffle around the front and back of top. The cape was pinked on both edges and put on with a ruffle heading, as was also the crown. A large bow was placed on the top."

ELLA BARTLETT SIMMONS.

SENSIBLE OUTING SUGGESTIONS

If this happens to be the first really prolonged vacation at shore or mountains, don't make the fact noticeable by a disagreeable boasting of former good times.

Bathing costumes should be dark in color, well-fitting, and never conspicuously worn; it is not only the style of the dress, but the manner in which it is worn, that makes the water-toilet modest or immodest.

Don't tell fairy stories anent your social or financial position while sojourning at the resorts. Remember summer is followed by grim-visaged winter, and lies invented to deceive often turn into scourges and smite you unawares.

No one is so credulous as to believe women who wear cheap jewels and tawdry finery when they drawl out the information that their best gowns and finest jewels have been left at home. Gentlewomen of refinement never talk so.

Don't lay too much stress upon the clothes you wear. Above all, never talk dress or criticise the costuming of other women if you would be a pleasing companion to a man. Men hate dress talk and gossip.

If you "bike," don't enter the summer hotel dining-room in your wheeling-rig. A bathing-costume would be quite as correctly worn.

Counterfeit relationships invariably come to grief. Some one you thought leagues away turns up, and, behold, you are found out—as you richly deserve to be. The "cousin" myth has been done to death, happily.

P. W. H.

[HOUSEHOLD CONCLUDED ON PAGE 17]

TWO OLD CRUSOES

By Florence McCallen

CHAPTER I.

THE low room, with its wide fireplace and bright, crackling fire, its clean-scoured floor, and yellow walls shining golden in the firelight, looked peaceful enough; but the woman sitting in the hickory rocker before the fire looked far from peaceful. Her strong, unwrinkled hands were knitting with needless vigor and speed. An old man sat near, gazing uneasily into the fire, avoiding her glance; he was plump and small, with round blue eyes, and his manner was conciliatory.

"I don't know why you should accuse James of that," he said, at length.

There was both pity and protecting love in the look she gave him, but she knitted on without answering.

"He said that John was coming from the city to-morrow, and they thought it better to take us—for us to go home with him—for—for the winter. We have no man now, and he thinks it ain't safe—John thinks it ain't safe—for us to live here alone. Me seventy, and you close on fifty-eight. He said—"

"Nathan," said the wife, with forced composure, "don't you know what they mean? They are our sons, but we need not shut our eyes to facts. James has taken in all the fields one by one; they are now his as surely as if they were already deeded away. He controls them—not you or I. We have no man, because the need for one and the ability to pay one went with the land. In kindness, you think, father, but mistaken kindness—if they mean to be kind. James has taken to himself everything we had to bring an income, and, as he says, are dependent upon John and him; he is going to try to make us give up our home. The 'income,' or 'allowance,' as they call it, isn't half what James gets from one field alone. Nathan, Nathan, let us take what is our own and live our lives out here where we began life together!"

The old man shifted uneasily in his chair. "They ain't going to allow that, Marthy, the boys ain't. They don't think it hard on us to be spared from work. We'll go into a big house het all over without us carryin' a stick of wood; we shall have our own room, and we won't have to do a tap."

"The blindness of men! To take a strong, vigorous woman from familiar surroundings and the pleasant, daily work of a lifetime, set her down in a strange house—as strange to her as the golden streets of the New Jerusalem—a house not hers, with no duties, no occupation—and expect her to like it!"

The woman shut her firm mouth and went on with her work. "Well, well, Nathan," she said, after a time, "it will take awhile to kill me, I keep my strength so; we'll try it. But if our girls had lived—boys forget, or never learn, but a daughter would know. We'll go; but never expect me to be content. I shall never be content."

In time the flitting was accomplished. John, the son whom the happy young mother had named in that blissfully proud and holy first hour of his life, when he lay upon her arm, a small and insignificant germ of humanity interesting to her alone, for that disciple whom the Master loved, proved an exceedingly cool and matter-of-fact personage. Among the articles set out for removal was the battered old cradle in which the whole family of babies had been rocked and sung asleep, and from which three fair little daughters had been taken to their coffins. An old but dainty patchwork quilt lay folded in it, and a tiny pillow of down lay by it. John kicked it aside with his shiny boot; to him it was but the shabby chrysalis from which he had so gloriously emerged. The little pillow fell out, the quilt unfolded.

"You can't take such a thing as that, mother; Sophia would faint, and it is of no possible use."

"Sophia did not faint when she rocked Captain Shields' grandchildren in one just like it, when she worked in their family," his mother remarked, as she refolded the little quilt and tucked it tenderly away with the pillow in a trunk. John flushed and turned away with a feeling that his mother was unreasonable and getting very childish.

To the successful city man the old fields were simply old friends, remembered chiefly as the scene of much tiresome work which had paid him but poorly. He had begun to regard his father and mother with self-satisfied benevolence, as creatures of his bounty; but now he felt that his mother had reservations. Nor was she altogether satisfactory in appearance. Her crisp, graying hair, which waved away from a too-narrow forehead, was dressed too plainly, and the country make of her blue cotton gown made her really fine figure look dowdy in his eyes—which were in the habit of seeing as his Sophia permitted. He had a vague feeling that his mother had expected something different from him, he could not tell what; her wide-apart gray eyes looked cold and unlike his mother's eyes. There was something lacking. When he got back she had finished packing; the old cradle had been put away, but of what had been laid away with it John Raydon had not a notion. But memories of baby days, dear, troublesome boy days—all that her two stalwart, troublesome boys had been to her—was in that cradle's shabby depths. The rest of her life's happiness lay in the three little graves on that far hillside. Her "rags," as her son called the carefully made bed-clothing—made by hand, stitch by stitch, with one of the babies on her knee oftener than not—were all packed, and John saw no way of leaving them behind with his mother personally superintending the loading. Sophia must attend to the disposing of them later.

At last all was done; the old man pottered about, reluctant to leave, but his wife sat upright in the wagon, never turning her head when they drove away from the old, maple-shaded house. A loosened gutter hung over a kitchen window. "There, Nathan," she said, as she passed out, "you ought to have fixed that."

"It will not matter," answered John. "I have arranged to sell the place at once."

The old man laid a trembling hand on his son's faultless glove. "You ought not to sell, John, until we see whether mother likes town; we don't want to fret mother."

"Pshaw, father! I am surprised that you have not more sense and judgment," said John, shifting his hand petulantly, so that the knotted and toil-worn hand slid away helplessly.

"They can sell nothing of ours, Nathan, without our consent," said his wife, with cold emphasis; "and it surprises me to hear you speak of disposing of your father's property as if we were both idiots, or dead. You might as well think of selling the National park."

"Truly," thought John, "it is time the old people were attended to—mother is indeed growing childish." He bade the old people good-by at his brother's gate, telling himself that his time was far too precious to be wasted in mere "visitiug;" that they could follow him after their visit with James. He would send a carriage to the station.

So the old folks fared alone up the prim, stone-flagged path to their son's new, unutterably dreary house. James' wife was in her kitchen. She was a fat, dolorous woman, with two objects in life; namely, to keep her husband in a good humor, and to save money. Their home was childless except for the presence of a forlorn "bound" boy who seemed to bend all the energy of his famine-stricken little body in the direction of "plenty to eat, and time to eat it"—a state of beatitude he was not likely to attain at James Raydon's farm, as he was kept busy every moment of his waking life.

James' wife extended a hand as flabby and cold as a dead fish to the old people in turn, sighing wearily, "James is out in the back field a-spreadin' manure. That field's a heap of trouble to him; it don't raise nothin'."

Grandma looked at her steadily as she sat down on the sheepskin-seated chair offered her. "John's talking about selling the rest of the land, Ann, so I reckon it won't be much more trouble to you."

"Law, law! I reckon James'll have a say-so in that! John has allays acted like the whole thing was hisn!"

Grandpa fidgeted in his chair, but grandma laughed. "Yes, that's what we think; me and pa. He acts that way, John does."

Ann was mollified; she added a small additional slice to the stingy pat of butter on the table she was setting. "There's that legacy of Aunt Serildy's," she went on, in some excitement. "James thinks that ought to come to him, an' I think so. John grabs ever'thing; he ain't a-goin' to get that legacy without a fuss!"

"No, he ain't," assented grandma; "but don't you-all think you'd best leave pa and me a dollar or two to buy any little thing we may want? We may live quite a spell."

Even grandpa's good temper was ruffled by this discussion. He rose, brushing his hard hands down his jean trousers with a rasping sound. "I'll jest go down to the field to John, Marthy," he said, "and you and Ann can get your visit out, so's we can start on to John's to-morrow."

Grandma waited until he was well out of hearing, and then said, "I've been wantin' to tell you all about Sister Serildy, and now's as good a time as any. Set down, Ann; you're some savin' in other things, save yourself when you can as well as not."

Ann obeyed, her light eyes dropping tears in sinful profusion; grandma took out her knitting. "I reckon you know about your Aunt Serildy; how she was not your aunt at all, nor no kin, but just a poor little orphan that my mother took when the little thing was little and cute and well favored. Mother died when the child was about ten, and your pa and me, bein' new married, we took and raised her; she helped me in all I had to do, raising the children one after another, coming on fast—God bless 'em—and when she was about grown she saved a young man she was promised to from being burned to death. She was awfully burned herself, yet got well, but disfigured for life. The young man was all right in looks, but when he saw Serildy he fainted. He never saw her again; she offered him his freedom, and he took it. So she lived a good while, and was a good woman, and he was a good man, only weak-like and liking pretty things. So when he—or before he died—sent for Serildy, and they was married according to his wishes, so she might be raised above hard work. I went with her, and she seemed to forget all but the fact that he still loved her and had thought of her at last. God had took his eyesight, poor boy, so her looks couldn't shock him; and they had bettered a good deal, anyway. Then she fretted after him when he was dead, and when she died she left the money to me, to do with as I please. The lawyers got some hole to pick at, and some claim, and so they are still lawin', and I reckon they will law while there's a dollar left. None of you need make claims till the lawyers get through. I thought I'd let you know the rights of it, so you need not worry any till there's something to worry over."

After a long night spent in that atmosphere of chilly respectability the old couple went on their way. Grandpa had intended to get up early and walk across the field to mend that pipe, but the excitement of the previous day had tired him, and he overslept. He was full of pleased comments, and kept dropping them at inopportune moments when grandma's eyes were aching with repressed tears, and her imagination was picturing the old house, deserted for the first time since the first fire had been kindled on the wide old hearth forty years before. She was thinking, as the train shrieked into the hustling young city, that the sun must have passed the noon-mark on the worn old doorstep, and that Nathan must be hungry; he was excitedly gathering up bundles and calling upon her to hurry.

Sophia received them with the varnish of recent culture very thickly laid on, gave her mother-in-law a cool touch of the hand, and to grandpa as warm a smile as her new gentility would admit of. There were children in John's home, the outwardly polite, impish, modern children that make a child-lover quake, and were like a nightmare to their grandmother. At least two of them were—a proper boy and a proper girl; but there was another—a bad, sulky boy who tore his clothes, was dirty often, made noises, and failed in his lessons. This bad, unpopular boy was ten years old, and his name was Wynchester. No one thought of it, but Wynne looked a small, soiled image of his grandmother; his square jaw showed firmness, his gray eyes looked with fearless honesty straight into one's eyes. His grandparents said little to him in the presence of the family, but there was a friendship between them. His grandmother's eyes told him, when he had dropped his napkin at table, that he might happily recover it before reproof came. She mended his things, and sewed on missing buttons which the servants neglected, and took intelligent care of his pets when he was absent. Grandpa told stories of early days—stories with bears and Indian-fighting in them—understood many makes of guns and revolvers, and could, and did, explain their mechanism intelligently; and as this was a subject upon which Wynne desired to be posted, they fraternized. Grandma submitted to a pretty cap, the silk apron of a very old woman, and the lace fichu, but would not give up her usual knitting, nor her attendance at every service of the plain little church of the United Brethren, which she found in a back street of the pushing and careless young city. The luxurious modern house was a novelty at first, but soon became to the old people a dreary prison. They had their own room, but it was liable to be invaded at all times by maids with dust-pan and broom, by the two children, who appropriated everything of interest to them and hid them away like magpies. They missed the cheery, open fires, and the independent farm-life, where old neighbors gathered about their table and their hearth. Once grandpa ventured to ask the pastor of the little church to call. The experiment was not a success. The good man stayed and stayed (while grandma fidgeted), and completed his morning's mistaken performance by accepting a grudging invitation to luncheon. The master of the house being absent, the three were treated with cold disapproval by Sophia, and poor grandpa felt very much as he had done when in nearly forgotten days he had taken a bath—or swim—instead of Sunday-school, and slunk home in the gloamlug full of joy that he had had one more glad hour, and of fear that he must pay the price. As he looked across the table at his daughter-in-law he involuntarily put his hand to his hair expecting to find it damp. He never invited another guest to his son's house, not even when his old friend Captain Shields came up from his winter home in Florida on business, and, pitying the forlorn old man, made him custodian of his many houses. His residence was next door to John's house—which overtopped it by a story—and was fully furnished, and the two old friends went over it together. "I wish you could live here, Nathan. But I suppose that is out of the question. I have heard something of your affairs, and I think you are making a mistake. Forgive an old friend's meddling."

"It ain't jest the best place for Marthy," the old man answered, as they sat down in the shrouded parlor; "she's active, Marthy is; but I guess we can stand it. The boys are all we've got; the little girls—they—they ain't alive, and the boys are all we've got."

"Not all, old friend; but if you don't listen to your wife's counsel you will soon have nothing else. I am sure Martha did not want to leave the farm."

"No, she didn't; but it seemed the right thing to do."

"And she gave in? I thought so. Now, Nathan, listen to me. I consider you perfectly capable of attending to my business; why do you not see to your own? I know the boys have the start of you, but hold on to all that is legally yours. Live on the farm if you want to; hire help, and work the land. Don't mew poor Martha up in a strange house with nothing to do. That legacy of Serilda Bacon's will be paid some time; the lawyers seldom get all one has. That will be Martha's absolutely; don't interfere with her or the money. I suppose you are comfortable here?"

"Well, not so very. We don't jest enjoy that hole in the floor, it's too uncertain; sometimes hot, but mostly cold. And Marthy worries about my cough."

"Well, come over and look through the house every day or two. Bring Martha over; it will be a change for her."

In a day or two John told his mother that she must give him power of attorney to act for her, as the legacy was about to be paid; depleted as it was by fees, it was still a considerable sum—several thousands.

"Why not act for myself?"

"You? You would get all tangled up, and they'd rob you. You couldn't tell your name when they got through with you."

But it transpired quietly but surely that grandma did act for herself (with the help of the captain, who was still in town), and in time deposited in a bank, subject to her own control, nearly five thousand dollars of good coin of the republic. The banker was a friend of grandpa's, having worked for him as a hand on the farm. Being a man, and not a snob, he was not ashamed of his humble origin, and was still a friend and counselor of the old couple.

The farm was let for a year, so there was no going home yet for them. Then, one January day, Wynne "came down" with scarlet fever. He would always play with any boy that pleased him, so no one was surprised. The model children were removed, for fear of infection. Wynne was banished to the top of the house and a nurse put in charge. When the danger-point was passed and grandma took charge the three had some happiness in that "upper chamber" while they were in quarantine. The view was wide, the windows square and low. There was no heater there; a grate fire warmed the room, and grandpa secured a quantity of fat pine, which made a famous blaze on top of the coal. Grandma used to sit at one of the windows hour after hour looking across the roofs and the snowy waste of country to a blue, distant hill, which she fancied might be her hill; she could almost hear the wind thrash the maple-trees about. Through a side window she could see across the roof of the Shields' house and some vacant lots the electric-cars flash back and forth. It was better than that prison down-stairs; she began to be rested. "I ought to go all over the house the next time I go over to Robert's. I was so uneasy about Wynne the last time I went over that I hurried right back."

Grandma beckoned, and he followed her into the back room. "There is a window that opens on this side; you can go right out on the roof if we can get the blind open. You have the keys and can open the scuttle."

The window came open stiffly, and they looked across the snowy roof to a covered skylight. "If that is nailed now—" It was, but grandpa opened it and disappeared below like a new species of diver. Grandma went back to Wynne and mended the fire. "Have you been opening a window, grandma? You smell fresh-airy," said Wynne.

Grandpa was very tired of the city; he missed his neighbors, the free, fresh air, the open wood-fires, the trusty old horses, the gentle cows. He seemed to have no object in life until his friend had given him something to do. The going into the house in this irregular manner was a diversion. He was cheerful all the morning over it.

Later, when they had lunched and the boy had gone reluctantly to sleep, grandpa, taking grandma's hand as if he meant to dance a minuet, locked the door opening on the stairs, opened the side door, led her across the roof and down the steep, ladder-like stairs, and stood at an open door twirling his keys gleefully.

CHAPTER II.

The attic room had one great square window of clear glass, through which a jocund sun was pouring a flood of light. The floor was covered with a rag carpet bright and clean, and a few old-fashioned chairs stood about the room. An ancient "tester" bed stood in one corner; at the other end of the long room was a fireplace with brass fire-dogs and old, old tongs and poker. Grandma's eyes shone with new light, and her nostrils quivered. "Oh, Nathan, if we could only come and live here!"

"Well, Marthy, I guess we can. I've thought out a way. They always expect a caretaker

to live on the premises. So when Wynne gets well we'll move over."

Grandma turned pale. "I hadn't aimed to tell you just yet, Nathan, but now I must. John has been so cross, and Sophia has been throwing out hints about us not being capable of managing, and that ever since I put Serildy's money in the bank to my own name; and now John is going to get James to join him in getting out papers to keep us from selling any land or spending any money of ours. Wynne told me, and then I found out in another way. I asked him."

The old man's face whitened, and he sat down heavily. "What did he say? Lord, Lord, Marthy, our own son! How did he act?"

"He seemed some took back, but he told me I'd know all about it before he got hold of the money, and I reckoned I would. I don't aim to let him get it, nor James. John said they'd have to serve papers, or do some other dirty law work."

The white despair on the old man's face passed away. "They'll never do that, Marthy! If they can't find us, how kin they sarve papers? We'll run away!"

"I'm a'most ashamed of bringing you such a son, Nathan. But the money he claims is for keeping us!"

"That's Sophia! That ain't none o' John's thinkin' up!"

"I don't hold with laying everything on the woman, Nathan; but I do hope it is Sophia."

"Well, well! Whoever started it, they ain't a-goin' to sarve them papers! I'll kind of hint around about going off on a visit, and if they ain't willing we'll just move up here. We can live like two old 'possums in a tree, and nobody the wiser."

"You're quite excited, Nathan; and—different."

"Why, yes; I am. Them days at the top of the house have been medicine! I'd been longing to take a good easy meal with my coat off and no snsyjo at my elbow to count mouthfuls! You bet I'm different!"

Neither John nor Sophia were willing for the old people to go on a visit. They were strong enough to care for a scarlet-fever patient three or four weeks, but not to go on a visit. Grandpa had shown an activity lately which had not pleased Sophia; he had not only collected rents for his old friend, but had consummated a deal for him on which he had made two hundred dollars commission, and had selfishly kept the money. He had given Wynne a famous sled, to be sure, but a sled! And for Wynne! While the other darlings— He would be risking his—our—property yet. No; he could not go away on a visit to any one! The old man took it patiently. There was a marked elation in his manner when he sat down opposite to grandma in that upper chamber, where she was comforting poor Wynne, who was pronounced well enough to go down-stairs, and in a few days to school.

"And now we'll all have to move," whined poor Wynne.

"Yes, Wynne," said grandpa, looking at grandma, and smiling; "you'll have to go down-stairs in the morning, and grandma and I will—move, too."

Wynne resented this smiling acquiescence. "You're not glad, are you, grandpa? And it will be beastly down-stairs. And gran says you're thinking of going on a visit?"

Again grandpa smiled across at his wife. "Your father and your mother ain't willin', Wynne, so I guess we sha'n't go far."

Wynne went down the next day, and the old people moved their boxed-up "rags" to the other house. The boxes were not large, and both were strong and accustomed to work. They did it at night, occupying their old chamber meantime, and watching sharply for any one who might come to "sarve papers." Grandpa had many old friends in the city—men who had been schoolmates of his, or worked with him in wagon-shops when he was young, before he moved to the farm. His wife's chosen banker was one of his ex-employees, and it was easy to withdraw the money and hide it in a very insecure place in the house. Then he wrote a note to his son, inclosed a hundred dollars, and left it upon the mantel in his room. Then he let grandma, her knitting-basket and her kitten out at the window, closed it, pulled an old wardrobe across it, went down-stairs and let himself out, the spring door locking behind him, and disappeared. Then, after loitering about the streets for two or three hours, he went around the block, went in the back way, up the two flights, and stood at the attic door in amazement. The bed was made up high and round as feathers could make it, and was covered with a familiar blue-and-white coverlet he had seen in use forty years ago. The sight of the little round table drawn up before the fire, the clean, coarse cloth, the shining, blue-edge ware and the odor of the coffee, the baked beans and brown loaf were almost too much. He sat down heavily in one of the creaking old chairs.

"Why, Marthy!"

"Why, Nathan! You ain't scared, be you? I bought the beans and the loaf, of course, and gave a little extry brown to them, and the bacon. And look here!" In a little long-legged skillet brown biscuits were rising cozily and deliciously together, while on a tripod the coffee steamed. "I went out, of course, but I wore a hood and veil, and nobody asked any questions but the grocery-boy. Seems like grocery-boys are made of questions. He wondered at having to fetch the things so high up, and reckoned we were the caretakers; and I told him yes, we were. I ordered more wood, and had it put alongside them pine-knots we fetched over. Land! Rachel Shields would take comfort thinking about us, if she knew. I reckon she had this place fixed up with her old things jest to have a place in which to rest from her fashionableness."

They sat down to their supper, and the old couple felt doubly cozy when the wind brought a dash of sleet upon the window.

"I do wish," said grandma, breaking open a biscuit and looking critically at its faultless flakiness, "I do wish we might have poor Wynne with us. Poor child, he's mighty nigh as lonesome in that house as we were!"

"No," said grandpa, with decision, "we can't do a thing like that. He's got to mind his ma and pa."

Grandma sighed, and grandpa softened. "I don't say he can't visit us once in awhile; but he can't stay long. They'd be uneasy, his ma and pa would."

"Think they would?" She had doubts herself about his being missed. Very few were the inquiries they sent up when he was ill, and when he went down-stairs he was not allowed to forget that his absence had been a relief. And now that the others were at home poor Wynne would always be in disgrace.

Grandma did very well in her voluntary exile until she went down and explored the house. Then she became nervous, and started at every sound. The place seemed vast to her, accustomed to the snug comfort of the old farm-house. On thawy days, when the gutters began to gurgle with melted snow, the sound was so like one strangling that she fled up-stairs. Sometimes when she went her rounds she fancied she heard stealthy footsteps behind her; but she saw nothing when she turned back, not even a rat. And when the sounds ceased, that awful, heavy silence! Gradually, however, this nervousness wore off, and after grandpa had made his cautious exit in the mornings, after John had gone by on his way to his office, and the children had gone to school, grandma would go over the house attending to Rachel's "things" as if they had been her own. She aired bedding, let no mouse nibble undisturbed, and looked well to the fastenings of the doors.

After grandpa had left in the morning she would take the money from yesterday's hiding-place, count it over carefully, and hide it in a new spot. Grandpa did not know where it was even, for might "they" not put the old man to the torture and so make him tell? One morning, as she sat counting it over in Rachel's sunny dining-room on the ground floor, she looked suddenly up from the piles of notes and saw a dark face peering in at the grated window. It disappeared on the instant, but she had time to see that one eye of it was gone and that the remaining eye was very large, very black, very piercing.

She gathered up the money in the soiled duster which lay in her lap, thrust it hastily into a drawer of the sideboard, and went out to investigate. She dared not open the front door, nor show herself openly at a front window, but she climbed the two flights and the ladder and looked out. But the intruder had had time to get away; no one was in sight who could possibly be suspected. She saw a man at the corner above the vacant lots signal a car and swing himself on, but he looked very respectable indeed.

She went down again, pulled the blinds down in the rooms she had been airing, looked again to the fastenings, and went up-stairs to put on her things to go out and do the marketing. She met with no adventure on her way, ruffled as she was, and as she ascended the back stairs somewhat breathlessly congratulated herself that she would be obliged to go down no more that day. She had mended the fire and was putting grandpa's oysters to drain preparatory to frying them when she heard a sound down-stairs—the peculiar sound of a stubborn drawer being forced open, a sound familiar to every housekeeper.

CHAPTER III.

Could grandpa have returned? And if so, what could he be doing down there alone? Then, cold from her head to her heart, flashed the conviction that there was a robber in the house at last. What had she done with that money? Had she brought it up-stairs? Where had she put it? She went softly and cautiously down and listened. Maybe, she thought, the robber might not find it if she herself did not know where it was. There was a sound in the captain's private room, the sound of voices low and speaking a peculiar language. Also there was an overpowering scent of strong tobacco.

Cautiously she slipped past the open door and went on down to hunt that mislaid cash. If they had found it, she argued, they would not now be searching. As she made the last turning in the dimly lighted stair a door opened in the hall and a man came out of the front parlor. She stopped, a slender dark figure on the dark stairs, and the man glanced upward. "Oh, come on down," he said, in English. "I don't believe there's a nickel in the beastly old crib."

Grandma started to go down, and the man ran a few steps noiselessly to a small closet where wraps were kept, and crept in, thinking himself hidden from any old woman. But he did not know grandma. She went up to the door and tried to open it; it was tightly held from the inside. She calmly selected a key from the bunch in her pocket to fit it, locked the door, and then went into the dining-room. The sideboard had been ransacked; the napkins, tray-cloths, table-cloths, and some soft towels for the glass and silver, lay piled on the floor, and some pieces of silver, overlooked when the family made its flitting, were piled together on the table. Grandma picked up the old duster, which had been piled out with the rest. The money was still in it, and grandma put it in her apron as she climbed those stairs again, tucking the gathered-up hem into the band, leaving her hands free. In the captain's room two men were searching a closet, their backs to the door, as they stood, each on a chair, reaching up. Thinking themselves alone in the house they were chattering like magpies. They had watched her go away, and did not know she lived in the house, so felt secure, thinking themselves alone. They were as mistaken as the one down-stairs, who had taken her for one of his confederates. Grandma went in softly over the thick carpet, and seeing a key in the door, quickly slammed it, and locked it, with her two astonished prisoners within. She started up to her attic residence, beginning to feel a little weak. She met grandpa at the door; he had just gone up-stairs and was wiping his feet on the mat. "You look cu'rous, somehow, ma," he said; "your hands shake like you had a chill."

She was putting the butter in for the oysters by this time, and did not answer.

"You go up them stairs too much, I'm afeard."

Still grandma did not tell him. He must lunch first, she thought.

"You ain't eating nothing," he said, later, "and I am afraid you are sick."

He looked so shaken, and so old. What if she should try to get rid of them herself. A policeman was out of the question if they wished to keep their cozy retreat a secret. After luncheon she pulled up the old lounge for grandpa to lie upon and take his nap, gave him a paper and covered his feet. He was soon asleep, breathing like a baby, and she again crept wearily down to her burglars. There was a sound of prying and tinkering at the lock of the closet up-stairs, but in the little dark closet in the lower hall there was utter silence. She tapped lightly at the door. Still silence. She then took the right key off the bunch, put the rest out of sight, and unlocking the door, stood a moment waiting. No movement in the closet. She looked in, and saw a boy not more than sixteen years old lying insensible upon the floor. The faint light from the fan-light over the door made his face look deathly. She was strong enough in her fright to drag him without much difficulty to the dining-room and open a window. She got some snow and rubbed it on his face—a poor, thin face with a deeply cleft chin. "Now," said grandma, "I've heard often that a rogue was never made of a boy with a dimple in his chin. I never saw a real mean man with one, anyway. I am going to trust this one, if I can bring him to. I ought to have known better than to shut him into that dead air. Lord, forgive me!"

This pious ejaculation seemed to suggest something; she knelt beside him, folded her hands and shut her eyes. "Oh, Lord!" she prayed aloud, "thou knowest all things. Look in mercy upon this poor boy. If it be thy will to raise him to a good, decent life, I pray thee restore him. If, in thy wisdom, thou seest that he will always be a rogue, never let him come to make others suffer. If he has a mother anywhere, sustain her in her awful trouble, for Christ's sake. Amen!"

A pair of dark blue eyes were fixed earnestly upon her when she opened her own, and a weak voice gasped, "Did you get the money?"

"You did not get it, at all events," she answered, severely.

"I saw it," he whispered, "when one of them threw out the things; I saw it, and knew it was what they were after. I didn't tell. I meant to come back and put it in the drawer again. I thought you might be scared to live here if you knew about—about anybody being here."

"How did you happen to know about us living here? But never mind now. I must get them rascals out of that room, and get them out quietly, too. Do you reckon you can go up to them now?"

"Yes. What are you going to do with them?"

"I'm going to let them go; they must think you locked them up for a joke. Do you know much about them? But you can tell me about that later."

"Are you going to let me go, too?"

"No, sonny, I'm not. I'm going to try to find out whose boy you are, and how you happen to be going about doing rogue's work with that chin on you. You've been sick, haven't you? You cough terrible!"

"Yes, lady."

"Well, then, I'm going to nurse you up and feed you up till you won't know yourself, and keep you here awhile till them men lose sight of you. I'm going to rest you up, and trust you in everything, just like I knew your mother and all about you."

They were standing by this time, and grandma laid a hand softly on his shoulder.

"I'm no good, lady," he said, two tears splashing down to give the lie to the reckless smile he had called up. "I'm just out of a reformatory, where my folks put me; that's the kind of a Sunday-school chap I am! I've been sick with pneumonia there, and I ran away from the hospital before I could walk well. Not a soul would help me but those fellows, and I tried to do them a favor and be a thief; but I couldn't do what I thought I could. They kept their word to me, but I fooled them; you see I am worse than they are. You can't trust me, lady!"

"But I shall trust you," said grandma, keeping her hand on his shoulder. "I mean to trust you right through. I want you to let them fellows out the way they got in, and then come back to me. There's an old man up-stairs—my husband—and he ain't as strong as he used to be. I want you to make them varmints keep still; he wouldn't stay here a minute if he heard about them. I will keep you here till better times come, if you want to stay. But go now, honey; and hurry."

In a short time the boy returned. "They're gone. We got in at the basement window. That's a trick they taught me at home—when they drove me out and then locked me out when I didn't come home in time."

"Tell me your name, and we'll go up to grandpa. Your true name," she added, looking gravely at him.

He flushed, and hung his head, but he told her. She remembered that his father had been an eminent lawyer and politician, who, after his first wife's death, had dropped out of public life. He had, later, married his Irish housekeeper. He had been an old man when he first married, and in his dotage when he made the mistake of putting "a beggar on horseback."

"Is your father living?"

"No, lady."

"Has—she any children?"

"No."

"Well, come along," she said, leading the way. "Pa," she said, appearing before him while he was still blinking from his nap, "this is Judge Colton's boy, and he wants to stay with us awhile and rest up. He's been real sick and wants nursing."

The old man looked at the boy a minute, slowly recalling all he had known of Judge Colton. "First wife's child?" he asked, at last.

Satisfied on this point, he shook hands, and made him welcome. That night, when the boy had gone to his bed in the "end room" of the garret, grandma told her husband about the reformatory and the boy's flight from it, but said not a word about the burglars. "And, pa," she continued, "I reckon you may as well put that money back in the bank to-morrow. It has been right smart of a care to me."

"Why, yes," he agreed, "for John's been there askin' about it, and whether we'd drawed it, and he ain't likely to go no more. They told him we had drawed it, every copper."

The old man chuckled, but his wife sat musing. "Strange," she said, and sighed, "that none of them don't ask about nothing but the money! And they were tol'able loving little fellows when they were little, too!"

For a few days the boy was a care; his cough was troublesome, and a low fever hung about him. Grandma nursed him tirelessly, battling with his stubborn weakness as she had done with every difficulty that had met her in life. She called in no doctor, but with the simple remedies she knew how to use she conquered at last. Once started on the way to recovery he was soon able to go about the house, bring up the wood and water, and do most of the marketing. He would not go to his home for clothing, and one morning grandma gave him fifty dollars and went with him to help him choose some clothing. Grandfather came as near a sneer at this imprudence as he knew how. He sniffed and coughed. "You'll never see a dollar of that money, Marthy!" he said.

"No, I don't expect to," she said, calmly; "not just that money."

It was a transformed youth that grandma returned with triumphantly—a handsome but delicate one, who had been forced by a coarse hand into the byways of life, and who was glad—how unspeakably glad—to return.

"Now," said grandma, kissing him at the top of the back stairs, "all these last years of yours are over and done with, and you are Sterling Colton—as strong as your mother and as good as your father, who was a man of honor, but weak. You must live up to that chin of yours, Sterling, and make us proud of you, pa and me!"

She then went into the room where grandpa sat waiting, and began to bustle about, giving the boy time to dispose of the tears which would come, though his throat ached with the effort to suppress them.

How they lived—these Crusoes, with their man Friday—the rest of the winter would take too long to tell. Wynne found them out and came across the frosty roof to visit them—and came once too often, for he was followed by the "incomparables," as grandpa named those other children in his mind, who, though they were too cowardly to go down and discover all, hastened to report to their father, who did go down. What he thought of what he found there he never told. Grandma, through fear that he had come "to sarve papers," gripped her heart, introduced Sterling, and apologized for poor Wynne, who was quaking. John did not seem awkward, for he was a self-possessed man; but he was thinking fast while he sat there taking in everything almost silently. When he stepped softly back across the roof, the possessor of many facts and not a few new emotions, he

went down to his library and locked himself in. The next morning he posted a letter to his brother, requesting him to have the farmhouse vacated at once at any cost, adding, by way of explanation, "Father is not contented in the city, and mother is not suited to a life like ours. Besides, they now have a young man with them whom mother is nursing, as he has been ill. He is the only child of the late Judge Colton, whose estate is still unsettled. As the old folks will not be alone now, and mother would like to get back in time for the sugar-making, they ought to start as soon as possible."

James sat in silence while his wife read this letter, which all the way from town he had been trying to adjust to his idea of his brother. His wife laid down the letter with a sigh. "John's got holt of Aunt Scrildy's money, and now he wants you to give up what land you've took. He's willin' to give up the picked geese to us now!"

"My idea is that John has got his hand into this young fellow's pocket, and he sends the old folks down here with him to keep other lawyers off."

They both wronged him, we know; but John never explained. Wynne was allowed to spend his holidays at the farm during sugar-making time, and the "incomparables" were also sent down experimentally by their mother, and stood about uncomfortably in the way of every hurrying worker, suffering tortures if a turkey-gobbler or a calf looked toward them.

Not to all is it given to penetrate to the heart of farm-life. But Wynne! He went back to his school-life after each visit feeling that by nothing short of a miracle could he have crowded so much enjoyment into two days. John wonders now how he could have ever thought his parents past enjoying active life when he comes down for a day at Thanksgiving or Christmas. James' wife comes over and unloads her sorrows on grandma's willing heart, and James comes, too, but Sophia never. Past mistakes are never pleasant to recall.

BECAUSE

It is not because your heart is mine, mine alone,
Mine alone;
It is not because you chose me, weak and lonely,
For your own;
Not because the earth is fairer, and the skies
Spread above you
Are more radiant for the shining of your eyes
That I love you.

It is not because the world's perplexed meaning
Grows more clear,
And the parapets of heaven, with angles leaning,
Seem more near,
And Nature sings of praise with all her voices
Since yours spoke,
Since within my silent heart, that now rejoices,
Love awoke.

Nay, not even because your hand holds heart and life
At your will,
Soothing, hushing all its discord, making strife
Calm and still,
Teaching Trust to fold her wings nor ever roam,
From her nest,
Teaching Love that her securest, safest home
Must be rest.

But because this human love, though true and sweet—
Yours and mine—
Has been sent by love more tender, more complete,
More divine;
That it leads our hearts to rest at last in heaven
Far above you,
Do I take you as a gift that God has given—
And I love you!

—Boston Transcript.

PIONEER TALES

BY CHARLES H. BARTLETT

The black bear figures very conspicuously in the early history of all the country bordering on Lake Michigan. A very large one is the subject of an interesting tale, as told by Mr. Adam Baker, a pioneer of this part of the country, who came into northern Indiana with his father's family in 1832.

The boy Adam and his brothers William and Nelson were helping their father gather turnips. A neighbor had a larger crop of this kind than he could make use of, and had therefore sold the Bakers several loads from his field, lying only a few rods north of the present site of the Sumption's prairie church, near South Bend. They were driving into the field for the last load when a gun was discharged by some one standing just within a near-by thicket that had lately sprung up at the edge of the clearing. The next moment an Indian leaped into the air with a great yell, his blanket flying and his whole body in most violent action. He vaulted over some shrubbery that lay in his path, and then bounded away with most surprising agility. The querulous bark of a little dog, with now and then a heavy growl, and the constant crackling of twigs, as of something breaking through the bushes, continued for some moments, when at last they caught sight of a huge black bear. The beast had been struck, and, smarting with pain, had pursued the Indian. But the latter's little dog, well trained for such an exploit, was at hand to snap at the heels of bruin and to annoy by its presumption and its irritating bark. The very insignificance of the little foe contributed much to the effectiveness of its attack, and still more to its own security. For when the bear, in a violent rage, turned to smash the dog to smithereens, the little fellow shot off into the bushes. There out of reach and out of sight, it easily ran around to the other side to bite and yelp again.

In the meantime the Indian at a safe distance was pounding home a load of powder and lead and adjusting the priming of his gun with greatest care. While the dog and the bear were fussing it out between them the hunter crept from tree-trunk to tree-trunk, and with all the proverbial stealthiness of his tribe, stole near to the side of the great beast. There was a flash, a boom, and then the yell, the flying blanket, the gesticulating legs and the precipitate retreat. Then came a lull. Was it over? Not yet, for soon the little dog's yelp gave evidence that bruin was still on all fours.

Again and again approach followed retreat. The Bakers thought they had counted twelve shots, when at last the Indian no longer ran away, but instead pointed to the spot where the quarry was stretched in death. Beckoning with his hands, he cried out, "Heap big!" Of course, they hastened to the spot, and found that there was indeed a big heap of bear meat in that mass of glossy fur. It was a very large specimen of its kind. Using such signs and gestures as they thought appropriate, they tried to flatter the Indian over his fine marksmanship—which had indeed been very poor—and to commend him for his bravery. To all of which he responded promptly with profuse nodding of the head and broad grins. They then lifted the bear into their wagon and hauled it to the hunter's home. He had pitched his lodge on some low ground by the side of a stream, about ninety rods from the spot where the church now stands, and had just begun the winter hunt. The next morning that red man stood before the door of the Baker house with a present of a neatly dressed rib-roast from the side of the bear.

* * * * * * * * * *

Whenever Mr. Baker tells the story about the Indian and the black bear the grandchildren always beg for the other one about the wolf he caught in a trap. In the first years after the family came to Indiana the wolves were very bad. Their numbers and their fierceness sometimes alarmed people. So the boy Adam made a wolf-trap, and had the good fortune to catch a live wolf. And not every one who makes a trap also catches a wolf therein, for the wolf is not only a very bad old brute, but also a very sly one, and seems at times to have almost the discernment of a human being.

The trap was made of stout round timbers five or six inches in diameter. The trap cost a good deal of labor, for these sticks of timber were fastened together by long pins. The sides, the ends and the top were thus made separately, and then all parts securely pinned together, so as to form a very heavy box six feet long, four feet wide and three feet high. A floor was made of similar timbers pinned together, and then the trap was placed above and set with a bow-spring.

Days went by, but nothing approached that cunning device. Adam's brothers began to laugh at him. But one morning the trap was down, and on going near they discovered that there was indeed a live wolf twisting about on the inside and seeking in every way to get out of this stout pen. The boy Adam cut a forked stick, and with it caught the wolf's leg and drew it through a crevice in the trap. He then cut the tendons, so as to hamstring the creature. Then all the dogs in the neighborhood were gathered about the trap, and among them the two belonging to the Baker family, Watch and Perry. Watch was a large bulldog, famous for its savage and tenacious bite; the other one was called Perry, from the name of its former owner, a negro in the old Ohio home. The dog Perry looked like a big Gordon setter, except that its body, face and all, was covered with long, bristly hairs, imparting a very savage appearance. Though large, he was a nimble fellow, and he had an awful row of teeth and a deep bowl.

They gave Watch the first chance at the wolf. The former advanced boldly yet cautiously. But the wolf got ready for action very quick, and making a sudden dash, gave one vicious snap and drew back. And the dog also drew back, for the gleaming fangs of the wild beast had cut a clean gash from a point between the eyes of the dog to the end of his nose. Thereafter Mr. Watch could not be induced to even so much as look at the wolf.

Perry, held back during the first contest, had been taking notes, and profiting thereby, proved a better antagonist. When the wolf sprang at him he dodged, and then caught the animal just under the lower jaw and held him until his struggles were over. Every one desired to have his dogs bite the wolf, for such a proceeding was thought to be a very fortunate experience, contributing to their higher education. They might thus be made bolder in attacking other wolves, whose extermination was greatly desired by the whole community. So all the dogs of the neighborhood pulled and tugged and bit the tough carcass of that wolf to their hearts' content, after Perry had got through with him. Finally, Adam seized the remains and bore them home in triumph.

After dinner the family went out to the side of the house where the mutilated body of the creature had been thrown, but to their great surprise the wolf was gone! Left to himself, he had revived, opened one eye, and then the other, hopped up on his sore legs and made off. But the dogs were called, and they soon overtook him, and this time made a sure end of that wolf's career.

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THE heads of these pins are genuine sterling silver plated with gold. They are beautifully colored with blue French enamel and are the new Oriental finish. No. 574 has a real opal in the center and three real pearls. No. 703 has two real pearls. These pins are new designs, first-class goods, and are guaranteed to give satisfaction or your money promptly refunded.

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BECAUSE THOU KNOWEST

Because thou knowest, O dear Lord, because thou knowest well
The secret troubles of our hearts, those thoughts we cannot tell
E'en to our friends, however dear and pitying they may be—
Because thou knowest all, my Lord, our comfort lies in thee.
At thy dear feet our griefs are poured, on thee our burdens laid;
In thee we find the sunshine, though our way lies deep in shade;
From thine all-searching sight, O Christ, we would not try to hide
Those secrets which from friends around are hidden 'neath our pride.

Ah, no! but as a grieving child leans on its mother's knee,
We put our trembling hands in thine, and tell our griefs to thee,
Because thou knowest, gracious one, the reason of them all,
Because thine aid alone can lift and cheer us when we fall.
O loving Lord, who madest us, and who so long ago
Dwelt with thy children here on earth, learned human joy and woe,
Bend down, and put thine arms about thy children as they pray,
Because thou knowest all their hearts, their need of thee each day;
And whatsoe'er our trials be, though they be great or small,
"E'en as a mother comforteth," wilt thou, who knowest all.

—Mary D. Brine, in Christian Endeavor World.

EVERY LIFE A PLAN OF GOD

BY MARY LOWE DICKINSON

There is nothing incongruous in the thought that the great Father, looking down the years, taking into account the endowment and inheritance received by the child-nature, and knowing all circumstances, should plan its life. It is reasonable to think that he means it to be and to enjoy all the best, noblest and sweetest experiences which, with its nature and its environment, would be possible. It is easy to believe in a loving, restraining spirit following the life with tender touch upon the conscience and the tendency to stray; yet leaving the child-nature unforced, and dominated, after all, by its own free choice.

It is easy to believe that, as life moves on and the nature in its development falls far below its best, he, whose plan if carried out would have made a useful and happy life, mourns over the wreck caused by indifference and sin. The noblest plan of God for that life has failed. The ebbing waters may rise again, but never to the high-tide that might have been possible to that individual soul. What might have been was not, and will not be. Yet we could make no more serious mistake than to suppose that God abandons his plan. What seems utter failure to us may not mean utter wreck to him. He sees not only with purer eyes than can bear to behold iniquity, but with far-seeing eyes that make no mistakes; and he judges with compassionate heart that knoweth our frame, that remembereth that we are dust.

We are safe in believing, then, that the same love that planned to give us his own highest and best, seeing to what low estate we have fallen, plans again to get our feet out of the miry clay and to set them upon a rock. It is not his ultimate best this time, perhaps; not the ideal he had for us in the beginning. That ideal we shattered, remember, by our own hand; and we are forced, to our shame, to remember that nothing from outside the soul has any power to mar or to thwart God's plan. In our own hands lay the weapons by which our life might have been carved to immortal beauty or dwarfed and broken and destroyed.

Yet even when destruction in whole or in part has been the result of our errors, here again is a plan of God by which the best we may still be, if not the best we might have been, can be wrought out. And no matter how many times we fail to measure up to "the full stature of the perfect man," this wonderful fact holds true—that God is always drawing near, and always holding before our wayward sight a plan, new, inspiring, encouraging, by which the highest possibilities of the creature that we now are may be developed, and the highest results in nobility of character be obtained.

Are we among the souls that have fallen out of the ranks and are sitting dazed and blind by the wayside? Has God's victorious army gone marching on toward the kingdom, and are we left behind? Yet in the beat of their receding footsteps there is a throb to which our pulses are keeping time. In their shouts and songs is a voice that, floating backward, bids us rise and follow on. "Come slowly," it says; "feebly if you must; but come this way. You may not go as fast or as far as if you had wasted no strength in useless wandering, but wherever your final halt may come, this is the line of march, this way the leader passed." And nearer still, and soft and low, speaks the voice of the spirit so often unheeded or despised.

"All is not lost," it murmurs, in tones that have been pleading with us since we were little children at our mother's knee. "Still is it possible to build on the ruins of God's thwarted plans for the body a temple that shall be a fit dwelling for the living God. Still is it possible to train the stunted and neglected intellectual powers until they shall grasp the purport of God's present plan. Still is it possible for the soul to come into such accord with God's latest purpose that all our powers, bodily, mental and spiritual, may be bent in trustful obedience toward helping him to carry that plan forward."

How many times before we hindered and thwarted him by ignorance, by carelessness and worse! Now, may we bend every energy toward becoming coworkers with him for the redemption of lost years, for the restoration of lost powers, for becoming the very best that he can make of us—now that we are done, once for all, with the poor, pitiful business of making ourselves. The clay in the potter's hand, that was found so poor that it would not take and keep the shape he meant, may yet be fashioned into some shape that can be made to serve. He may be forced to put it to more common uses, to make a vessel less shapely and fair than the one his love had planned, but he will never throw away one lump of clay, nor cease to strive to overcome its unfitness, so long as it lies passive in his hands, however unworthy of his touch the life may be.

Unworthy enough seemed the clay with which he anointed the eyes of the blind; but his hand upon it was all that was needed to set it athrob with life and power. The result of that contact, so long ago, was that the blinded eyes were opened and another soul crept up out of darkness into his marvelous light.

That the clay may come to know and to answer the divine touch with a pulsing, radiant life is everywhere a part of the plan of God. And so long as there is clay, and so long as there is God, he who sits "blind by the wayside" may be comforted as the child is comforted who is left alone in the dark.—The Occident.

BACKBONELESS HUMANITY

It is the home indulgence of early life that is responsible for so many specimens of backboneless humanity. There are many mothers of the indulgent kind who have it not in their hearts to make their children do anything that is unpleasant to them.

The frequent "school headaches" are accepted seriously, and the lessons are shunted for that coveted run in the garden or that jolly play in the house. If music be unpleasant for little miss, still in the grinding drudgery of scales and fingering, music is dropped because she has no taste for it, and it is cruel to force her inclinations. So with the brother's Latin and arithmetic, geography and history.

The mother maintains the abnormality of her children all through, and makes the childish petulance and childish dislike of initial drudgery the measure of their mature requirements. Nor can she correct them when they do wrong. She makes kindly excuses to them and for them, and puts excuses into their own mouths, to save them the pain of a frank confession and herself the anguish of inflicting a deserved punishment.

She wishes, poor soul, to be all that is sweet and good and loving to her children, but she has not strength of mind nor force of will enough to make them feel that everlasting truth of consequences and responsibilities. She wants them to be good without the need of training, and to be happy without the drawbacks of sorrow for wrong-doing and the bitterness of suffering in punishment.

She thinks if she makes them strong and healthy and happy they will necessarily be good, and she does not see that all the while she is weakening their moral fiber and making them self-indulgent, unable to resist the pains and misfortunes of life, and sure to become in the end a member of that purposeless species known as backboneless humanity.—New York Ledger.

THE SIN OF FRETTING

"There is one sin which, it seems to me," writes Helen Hunt, "is everywhere, and by everybody is underestimated and quite too much overlooked in valuations of character. It is the sin of fretting. It is as common as air, as speech; so common that, unless it rises above its usual monotone, we do not even observe it. Watch any ordinary coming together of people, and we see how many minutes it will be before somebody frets—that is, makes some more or less complaining statement or other, which, probably, every one in the room or the car or on the street-corner knew before, and which, probably, nobody can help. Why say anything about it? It is cold, it is hot, it is wet, it is dry; somebody has broken an appointment; a meal is ill-cooked; stupidity or bad faith somewhere has resulted in discomfort.

"There are plenty of things to fret about. It is simply astonishing how much annoyance and discomfort may be found in the course of every day's living, even at the simplest, if one keeps a sharp eye out on that side of things. Even Holy Writ says we are born to trouble as sparks fly upward. But even to the sparks flying upward, in the blackest of smoke, there is a blue sky above, and the less time they waste on the road the sooner they will reach it. Fretting is all time wasted on the road."

KEEPING THE CLOCK WOUND UP

A recent writer comments on how slight a thing may influence a man's whole future. In a town in which this gentleman once lived—a town that later grew into a prosperous city—there were two jewelers, each of them just about making a living, and maybe just a little more. They were going along that way when a new-comer—a man of wealth—bought land in the town and built himself a fine house and settled there. These new people had a good deal of work for a jeweler, and they tried both of the jewelers to see which they liked better, before settling on one, and it was hard for them to decide; they liked them both; both did good work, and they were both pleasant men. But presently something happened that made the head of the house come at once to a definite decision. One of these jewelers had in his window a clock which the man of the newly arrived household used to consult in passing; he found it a good timekeeper, and he came to rely upon it for the correct time, and have rather a friendly feeling for its owner, when, going by one day, and looking in at it as usual, he saw that it had stopped. The jeweler that had placed that clock in the window, thus inviting confidence in it, and through it in himself, had forgotten to wind it. That settled it with the new-comer, who was a precise man, who had made his money by exact attention to business; and after that his carriage always stood in front of the other jeweler's store. The little occurrence turned the scales in the history of the two jewelers. The one grew into a rich man, while the other, who had forgotten to wind his clock that day, moved into a side street as the city prospered. That illustrates a great many things that occur in life. Men go along doing very well, until some day they let the clock stop, and through a single shady deed, or angry word, or ungentlemanly look, they destroy the work of a lifetime. We can never afford to be off our guard in this world. We must keep the clock wound, and hold it to its obligation to keep correct time every day in the year if we are to fulfill the full measure of our opportunity.—Current Anecdotes.

HUNGRY FOR KIND WORDS

When the late C. P. Leland, so many years the famous auditor of the Lake Shore railroad, was stricken with the illness that finally ended his life, Mr. Newell, the president, was very solicitous as to his condition. He asked about him frequently, and went to see him whenever he could. Mr. Newell was stern and unappreciative, and practically worked himself to death.

One morning he was shown into the sick-room, and he made his usual inquiries.

Mr. Leland lay silent for a little space, gazing fixedly at his chief. Then he spoke.

"Mr. Newell," said he, "I know that the end of my life is very near. The doctors have known it for some time, but they only told me of it to-day. If my work is ended here, I am ready to go. But before I go, may I ask you just one question?"

"Certainly," said Mr. Newell, as he took a seat.

"I have held an important position under you for many years. It was a work to which my life has been given; into which my whole heart entered. What I want to ask you is this: In all that work, in those long years of service, has there been one little thing of which you approved? One single bit of that work that was worthy of your commendation? One single item anywhere upon which you could lay your finger and say, 'This thing has been well done?'"

Mr. Newell answered, "Leland, you know that your work was well done, and that it always met with my approval."

"Then why did you not tell me so?"

The iron mask fell. Mr. Newell's eyes filled with tears. He took the hand of the dying man in his.

Then he let the other for a moment see into his soul. "I have tried to do these things, but I cannot. They will not out. That is the only excuse I have. I thought you knew how your work has always seemed to me. I ought to have told you so. Is it too late that I tell you now?"

Little words of kindness are worth more than gold. They should have free coinage.—Current Anecdotes.

LOVE YOUR BUSINESS

A man can no more be successful in a business he does not like than can a man be happy with a wife he does not love.

Enthusiasm is the power which impels men onward in any and every vocation. Without it men are lethargic. They will drift. But to pull against the tide they are as unable as they are unwilling.

Drifting, however, does not win the race, either in business or aquatic events. There must be the long pull, the strong pull and the pull with vigor.

Men in business to-day have no easy task. There is a great deal to discourage and very little to encourage. There are foes within and foes without to contend against.

Under such conditions it is no wonder so many either fail altogether or eke out a mere existence.

The antidote for despair is enthusiasm, and the germ of enthusiasm is love for or pleasure in that business or vocation in which you are embarked.

Therefore, if you would succeed, get in love with your business.—Selected.

AS TO QUEER NAMES

The man from Punxsutawney and the man from Kokomo
Discussed the Chinese troubles, and the first said, "Don't you know,
I think these Chinese names are queer enough to stop a clock."
"That's right," replied another man, from fair Caucomgomoc.

The man from Kokomo observed, "By ginger, that's a fac';
That's what my brother says—he lives down here in Hackensack."
And still another stranger said the man's comment was true,
And added, with a smile of pride, "My home's in Kal'mazoo."

Another man took up the strain, "Now, down Skowhegan way
And up at Ypsilanti we speak of it every day.
The names are all uncivilized and heathen in their ring,
That's what I told my uncle yesterday, in Ishpeming."

"Hohokus is my native town," another stranger said,
"And I think all these Chinese names the worst I ever read."
"Quite true," agreed a quiet man, "they're certainly uncanny,
That's what my neighbors all assert, in Tail Holt, Indianny."

—Baltimore American.

BILL NYE'S JOKE

When Bill Nye, in collaboration with James Whitcomb Riley, was touring the country as a lecturer, he stopped at a well-known Chicago hostelry one evening, and was escorted to a place in the big dining-room directly across the table from a dark man, with heavy, black mustachios, and a Mephistophelian goatee. Nye recognized his vis-a-vis as Herrmann, the magician, but beyond a quizzical stare gave no sign that he knew the eminent prestidigitator. Herrmann was very well aware that the bald man opposite him was Bill Nye, but did not indicate his recognition by word or manner. Herrmann had, in fact, prepared a little surprise for the humorist, and several others seated at the table were in the secret.

Nye was about to lance a leaf from his salad when he espied, lying beneath it, a superb and scintillant diamond set in a very fine gold ring. Without showing the least surprise he lifted the ring from the salad-bowl, slipped it on his finger, conscious all the while that every eye was upon him, and turning to Riley, who sat next to him, remarked, with his dry, inimitable drawl:

"Strange how careless I am getting to be in my old age, James. I am forever leaving my jewelry in unlikely places."

Herrmann was dumbfounded at the sudden manner in which the trick had miscarried, but he was destined for a still greater shock, for when the darky waiter who presided over the table brought on the next course, Nye turned to him, and soberly handing him the gem-set ring, said, "You are a very good waiter, Joe?"

"Yes, sah. I guess I is, sah."

"And you always will be a real good waiter, Joe?"

"Yes, sah. I'm boun' ter do ma best, sah."

"I believe you, Joe, I believe you; and as an evidence of my faith in you I want you to accept this little trifle. Wear it, and always remember the man who most appreciated your services."

The darky's eyes bulged. Herrmann's fork rattled to the floor, and he tugged at his great mustachios, but was far too clever to cut in with an explanation at such an inopportune moment. There were half-suppressed titters all around the board during the rest of the meal, which the professor of occult art did not appear to enjoy. At a late hour that night Herrmann was heard in loud argument with the dusky recipient of the diamond ring, trying in two languages to convince him that it was all a joke on the part of Mr. Nye. Finally, after disbursing a tip of more than customary liberality, Herrmann got back his ring. He afterward avowed that the stone alone was worth two thousand dollars, and that Bill Nye's nonchalant presentation of it to a grinning menial had spoiled a whole evening's performance in legerdemain.—Success.

HIS RECOMMENDATION

A kind-hearted clergyman was lately compelled to dismiss a gardener, who used to purloin his fruit and vegetables. For the sake of his wife and family he gave him a letter of recommendation, and this is how he worded it: "I hereby certify that A. B. has been my gardener for over two years, and that during that time he got more out of my garden than any man I ever employed."—Exchange.

HORSE-TRADE RULES

David Harum was a good horse-trader, but a recent transaction in horse-flesh, which was made by a well-known Memphian, shows that there are others who know how to get the long end of a horse trade. Several weeks ago this Memphis man saw a fine buggy-horse which he thought he wanted. He located the owner and asked the price. "One fifty," was the reply. After looking the animal over closely and trying her speed he concluded it was a good trade, and without more ado wrote a check for the amount. The next day he found that the mare was as blind as a bat; but this did not hinder her speed nor detract from her general appearance. He drove the animal for several weeks and succeeded in attracting the admiration of another lover of horse-flesh, who made a proposal to purchase.

"Well," said the Memphian, "I gave one fifty for her, but I will let you have her for one sixty-five."

The prospective owner looked the animal over and concluded he had a bargain. He paid over the money and took the mare. When the animal was unhitched the first thing she did was to run against a post and then, by way of emphasizing the fact that she was blind, fell over a barrel. The next day the buyer came back to the Memphian with blood in his eye.

"Colonel, you know that mare you sold me?" he began. "Well, she's stone-blind."

"I know it," replied the colonel, with an easy air.

"You didn't say anything to me about it!" said the purchaser, his face reddening with anger.

"Well, I'll tell you," replied the colonel. "That fellow who sold her to me didn't tell me about it, and I just concluded that he didn't want it known."

The new owner took his medicine and is now on the lookout for a friend on whom he can even things.—Memphis Scimitar.

TROUBLE AHEAD

Office-boy (to the editor)—"A gent outside wants to see you."

Editor (pulling off his coat)—"What's up now?"

Office-boy—"He's sore about de way you wrote up his speech last night. De reporter wrote that he was full of puns, and de compositor got it 'full of prunes.'"—Exchange.

PAUL KNOWS HOW TO DO IT

"Hello, central!"

"What number, please?"

"Give me Peking, and connect me with the palace of the Dowager Empress."

"All right."

"Is that the empress?"

"Yes; who are you?"

"I am Paul Kruger, president of the South African republic."

"Well?"

"I merely called you up to advise you to load your capital into a jinrikisha and get ready to trek."—Pittsburg Chronicle-Telegraph.

MISTAKEN

The son—"Pop, the hay in the barn is all scattered about terribly."

The father—"It is the work of tramps, my son."

The son—"Why, pop, I thought you told me tramps never worked!"—Yonkers Statesman.

A MIDSUMMER WISH

These summer days,
In burning baze,
I rather wish
I were a fish;
Or say a frog
In some wet bog,
With naught to do
The long day through
But soak and croak,
And croak and soak.

—Harper's Bazar.

BOASTS

"Ma faither's a soger," said a little Scotch lassie.

"An' ma faither, too," said her playmate.

"Ah, but ma faither's a brave mon. He's been in war and he's got a hole gaug o' medals. An' he gat the Victoria cross. The Queen pinned it on him wi' her ain hand," breathlessly announced lassie number one.

"An' ma faither's braverer," cried the other one. "He's been in dozzen o' wars, an' he's got gangs and gangs o' medals an' Victoria crosses. An' he's got a bonnie wudden leg, an'," with a triumphant shriek, "the Queen nailed it on wi' her ain hand."—Exchange.

MISCELLANY

"Well, that's enough to try the patience of Job!" exclaimed the village minister, as he threw aside the local paper.

"Why, what's the matter, dear?" asked his wife.

"Last Sunday I preached from the text 'Be ye therefore steadfast,'" answered the good man, "but the printer makes it read 'Be ye there for breakfast.'"—Chicago News.

A FAR-SEEING YOUTH

The father wanted the young man to go into business, and the boy wanted to be a lawyer.

"Which would you rather be," argued the father, "a lawyer or a millionaire?"

"I'll be both if you'll give me half a chance," replied the son; and the father hurried him away to law-school.—Detroit Free Press.

HE WAS A BOXER

"Please play for me your favorite now!"
He pleadingly besought his Rosa;
"Of course," said she, "I'll play you now
A nocturne by a great composer."
He smiled, and then, as readily,
A playful little glance be throws her,
He interposed, in tone of glee,
"A knock-turn is a great composer."

—Richmond Dispatch.

MODERN INVENTIONS

"I should like to get a patent on this improved wedding-ring," said the Chicago inventor, as he entered the patent office in Washington.

"Anything novel about it?" inquired one of the examiners.

"Yes, sir," replied the Chicago inventor; "it is adjustable."—Harper's Bazar.

THE RAINY DAY

Mrs. Spinks—"Where is the money you have been saving for a rainy day?"

Mr. Spinks—"In the Neverbreak bank."

Mrs. Spinks—"Well, give me a check for some of it. I want a new waterproof."—New York Weekly.

HIS REASON

Mother—"Didn't I tell you not to touch the preserves without my permission?"

Son—"Yes, mother."

Mother—"Then why didn't you come to me and ask me?"

Son—"Because I wanted some."—Life.

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HOUSEHOLD

[CONTINUED FROM PAGE 11]

REGENERATION

[Cornelia Moots writes from Manila that the inclosed poem is by a man serving there in the army under an assumed name: "He is trying to have his relatives lose him because he is such a drunkard. He has had a fine education and good positions; but drink pulls him down. He thought that if he went into the army he could resist it; but the canteen is here, and he has been repeatedly in jail for drunkenness. He is there now."]

Lord God, thou lettest the green things start
A new life every year;
Out of their sunken selves they rise,
Erect and sweet and clear;
Behold the lily's pure white leaves
Unfolding by each mere!

Again the sap mounts in the fir,
Through every swelling vein;
Again the clover stirs and thrills
Responsive to the rain;
Again the tender grass makes green
The lone breast of the plain.

Hark to the golden flood of song
The lark pours to the blue!
Behold the strong, undaunted shoot
Pushing its brave front through
The fallen trees! Lord God! Lord God!
Let me begin anew!

Out of my own self let me rise!
For, God, if it can be
A new and nobler growth may rise
From you decaying tree,
Surely a strong, pure life may mount
Out of this life in me!"

HOME TOPICS

It is not very satisfactory to depend on buying a cake of compressed yeast every time one bakes bread when living at a distance from a grocery-store. Sometimes the yeast will be forgotten until time to use it, and sometimes the groceryman will have sold out his stock when you send for it. The past year I have used a home-made yeast which is little trouble to prepare and makes delicious bread.

To start this yeast, save a pint of the water in which the potatoes for dinner were cooked, and dissolve one cake of compressed yeast in one half cupful of this water, having it lukewarm when the yeast is put in. Put the rest of the pint of lukewarm potato-water into a two-quart glass fruit-jar, and add to it two tablespoonfuls of granulated sugar, and when this is dissolved add the dissolved yeast-cake to it; stir it well, screw on the top loosely, and set it in a warm place, but not where it will heat, until it is light and foamy, then screw the top down tightly and keep in a cool place. The day before you wish to make bread add another pint of lukewarm potato-water and two tablespoonfuls of sugar. Let it stand about twenty-four hours, then beat the foamy yeast thoroughly, and use half of it to make three large, or four small, loaves of bread, adding a pint of lukewarm water to make this quantity of bread. Mix the bread at once, kneading it thoroughly; cover it closely, and let it rise until morning, then make into loaves, let rise again, and bake. Set the jar of yeast in a cool place, and the day before you wish to bake again add a pint of potato-water and two tablespoonfuls of sugar, as before, and repeat this every time you bake.

Any kind of yeast should be kept at as low a temperature as possible without freezing, so that the yeast-plant will not grow. Then when you wish it to grow and the bread to rise, a temperature of about ninety degrees will start it; but it does not need to be kept steadily at above seventy degrees to secure the best results. I keep my jar of yeast setting on the floor of a cool cellar, and although I have used it for almost a year I have never renewed it. The additions of the potato-water and sugar every time I bake keeps it always sweet, fresh and foamy, and it never fails to make good bread.

The eating of East Indian dishes is a growing custom in this country. Hot curries, with rice, are healthful and appetizing in hot weather even more than in cold weather. Rice should have every grain thoroughly cooked, so there is no hard portion in the center of the kernel, but never mushy.

Chicken, veal and lamb are the best meats for curries. Put a tablespoonful of butter in a stew-pan, and when it is melted put in a sliced small onion, and let it fry until yellow; then stir in a teaspoonful of flour, and add a pint of sliced ripe tomatoes and a teaspoonful of curry-powder mixed to a paste with a little water. Have the meat cooked tender in a little salted water, letting the water nearly all cook off. Take up the meat in the center of a platter, with a border of rice around it, add the broth to the curry, let it boil up, and pour it over the meat. I sometimes use cold roast lamb or veal for curry, preparing the sauce as above, adding any gravy left from the roast, and laying the slices of meat in the boiling sauce just long enough to heat thoroughly.

Now is a good time to replenish the stock of table-linen, for many shops are holding special sales, and hemming table-cloths and napkins, which should always be done by hand, is suitable summer-day sewing which may be done on the cool veranda or under the shady trees. The hem should be a very narrow, rolled hem, or a wider hemstitched one. If you are buying linen of medium price, choose one where the pattern covers the surface well; but when buying the finest damasks, select one with much plain surface, as the pattern and quality of the lines will then show to perfection.

Don't throw away the trimmings from new table-cloths, as the long linen ravelings from them are the best threads with which to darn when table-linen begins to show worn places.

Careful washing and ironing are necessary to keep table-linen at its best and to make it last. It usually wears out at the folds first, so make as few folds as possible in ironing. See that the line and clothes-pins are smooth, and do not let the linens be hung out to whip to pieces in a high wind. The love of fine linen seems to be innate in every good housekeeper's heart, and once possessed surely merits good care and attention. Maida McL.

FLOWER GAMES

When a flower festival or flower tea is to be given, all sorts of flower games are in order, and some of these, when ingeniously contrived, can be made quite amusing. The following love-story tells itself, as will be seen, by answering the questions with the name of a flower. The guest who answers correctly the greater number of questions receives a prize.

What was the maiden's name and the color of her hair? Marigold.

What was the name of her lover, and with what did he write it? Jonquil.

Who was her most formidable rival? Bouncing-bet.

What unfortunate possession prevented the latter from eclipsing her? An adder's-tongue.

What, being single, did John often lose? A bachelor's-button.

Therefore, in self-defense, which of the United States did he seek? Matrimony.

What instrument did he use in serenading the lady of his choice? A trumpet.

By what means did he climb to her window to play upon this instrument? Jacob's-ladder.

At what hour was she awakened by the music? Four-o'clock.

He being fond of fishing, by what gift did she reward him? Goldenrod.

What candy did John often send her? Buttercups.

What ghastly trophy did he offer her at the time of offering himself? Bleeding-heart.

What did she say to him as he knelt before her? Johnny-jump-up.

What did she offer him as a token that she accepted his proposal? Tulips.

And by means of these what flower was he enabled to cultivate? Heart's-ease.

What flowers bloomed in her cheeks? Roses.

To whom did she refer him? Poppy.

What were John's last words when obliged to leave his betrothed to prepare for the marriage? Forget-me-not.

What occurred as he took his departure? A yellow rose (yell arose).

What fragrant letter did he soon send her? Sweet P (pea).

Who were the twin bridesmaids? Rosemary.

Who was the best man to the groom? Sweet-william.

What did the bride wear upon her head? Bridal-wreath.

What did she carry in her hand? Bride-roses.

What clergyman performed the ceremony? Jack-in-the-pulpit.

What did the guests throw after the bridal carriage? Lady's-slippers.

What good wish may we extend to them? Live-for-ever.

THE BATTLE OF THE ROSES

This game is played with an equal number each of red and white paper roses. These are tied in clusters—five or six roses in a cluster. Two of the guests choose sides, one holding a bunch of red roses, the other one of white. As each guest, when her name is called, passes to her place in the line, she arms herself with a cluster of roses like that of her leader. When the lines are filled and all are ready for battle the conductor of the game—generally the hostess—says, "Ready," and each soldier throws a rose from his bouquet to the opposite side, expecting it to be caught by an opponent. The firing continues until the flowers are exhausted, when the two sides will have exchanged colors. The soldier holding the greatest number of trophies (roses) is the acknowledged victor, and has won the battle for her side. It is against the rule of the game to pick up a rose which has fallen; "it must be caught on the wing," like a ball. This game to be thoroughly enjoyed should be played out of doors. It can be made quite interesting if the rose battle is rapidly fought. Paper roses, being thornless, are more easily and conveniently handled than the natural ones.

Lilla A. Whitney.

SOME SIMPLE PUDDINGS

Cottage Pudding.—Two eggs, one cupful of granulated sugar, one cupful of sweet milk, one third of a cupful of butter, two teaspoonfuls of baking-powder and two cupfuls of flour. Bake in a quick oven, and serve with a liquid sauce.

Fruit-puffs.—Fill buttered earthen cups one third full with canned cherries or other stewed fruit. Make a batter of one pint of flour, two teaspoonfuls of baking-powder, one half teaspoonful of salt, and enough sweet milk to moisten. Put two tablespoonfuls of batter in each cup and steam until done. A delicious sauce to serve with this is made by adding one half cupful of sugar, a piece of butter the size of an egg and one half tablespoonful of corn-starch to one cupful of the fruit-juice and one half cupful of water. Let it boil five minutes.

Poor Man's Pudding.—One and one half pints of sweet milk, three tablespoonfuls of rice, five tablespoonfuls of sugar, a pinch of salt and one half teaspoonful of lemon extract. Bake slowly for two hours.

Liquid Pudding Sauce.—Dissolve one tablespoonful of corn-starch in a little cold water, cook with one pint of boiling water, add butter the size of an egg and one cupful of sugar. Flavor with one half teaspoonful of lemon extract and two tablespoonfuls of vinegar, or with the juice and grated rind of a lemon, or with three tablespoonfuls of fruit-juice.

Hard Sauce.—Stir one half cupful of butter and one cupful of powdered sugar to a cream, and flavor to taste.

Hope Daring.

BAKED PEARS

No. 1.—Take large sound pears, wash them without breaking the skin, and remove the blossom-end, but leave on the stems. Put into a baking-dish with just enough water to keep them from burning. Cover closely, and bake forty minutes. When done arrange on a platter with stems up.

No. 2.—Pare and halve as many pears as will fill a two-quart baking-dish; cook in boiling water until tender, then remove from the stove. Make a small quantity of tart apple-sauce, sweeten, and when cold place a tablespoonful into each half pear. Arrange them on a platter, and dust with powdered sugar and a small sprinkle of cinnamon.

No. 3.—Peel as many pears as you wish to serve, leaving on the stem. Make a syrup of two cupfuls of sugar, then place the pears in the syrup to cook until fairly tender, but not soft enough to break; remove the pears to a dish to cool, and boil down the syrup with a lemon sliced thin in it, to flavor it. Cook five minutes. Arrange the pears in a dish, with the sliced lemon around the edge, and pour the syrup over. If allowed to cool a little it can be served in a glass dish. B. K.

TIMELY SUGGESTIONS

This hot weather reminds me that I should tell others how we manage to keep our vitality during the heat. Recognizing that fresh air is one of our bountiful blessings, we prepare to secure as much of it as possible. It surely pleases the Creator to have us enjoy the blessings he gives us. For several summers we have slept out of doors until driven in by the cold in the fall. Sometimes we use a tent lined with black calico, to protect our eyes from the glare that belongs to a white tent. Just now we are using the north porch. It faces a busy street, so we have a few curtains, but not enough to shut us in, by any means. Then we have cots to sleep on, and one or two comforts to cover us, for it gets rather cool at night in Kansas. Thoreau used to dislike to pass houses—they were reservoirs of bad air. So many are afraid to sleep out. Really there is almost no danger. We have never been molested. The great blessings are the common ones—home, friends, fresh air, water, etc. Let us enjoy them while we can.

I am planning my Christmas presents. A large part of them are to be sofa-pillows, thus relieving me of much mental effort and giving something practical. Fish-net works up prettily in sofa-pillows, and makes nice double ruffles for the light-colored ones.

Why do we hear so little about the second coming of Christ? Surely the wars and rumors of wars are thick, and all point to the approach of the final conflict. The most significant of all things is that of the Zionistic movement and the prominence the Jews are gaining. Several of the prominent magazines had leading articles on the Jew and the Zionistic movement during the past year, showing the place they occupy in affairs of interest. Also Russia has carefully made her plans, and is now carrying them out. Her grip is strong upon Persia and China. She is a power to most carefully watch. Meantime He may come at any minute. Let us be wise virgins, and not let ourselves fall asleep. Clara Breese.

CHILDREN'S DIET

Do not force children to eat what they very distinctly dislike. It makes their childhood miserable, while nothing good is gained, as nature is a pretty good guide as to what the body needs. The variety in foods is now so great that all tastes can be wholesomely and easily suited. As soon as children have teeth give them bread-crusts to chew, as teeth need exercise as well as other bones. Soft foods, as breakfast mushes, are often made unnecessarily "mushy" by the addition of too much milk. They should be eaten without the addition of sugar or cream, but the milk should be whole and fresh.

Norwegians rear splendidly healthy children with fine teeth largely on what to the English ear sounds like cavringer. "Cavringer" (g hard) is not the same, but is similar to the German zweibach. Five cents buys a dozen cavringers in Norwegian shops in some of the large American cities where these hardy people colonize.

Half the ills from indigestion come from lack of mastication—the long chewing of food. American children are rarely taught its value and importance, and are as rarely habituated to its practice. A sure sign of ill-breeding is to "bolt" your food. M. W. F.

REMEDY FOR POISON BY IVY

Fry spearmint in lard, and apply the salve four or five times a day. This is an excellent remedy, affording relief in a few days. L. W.

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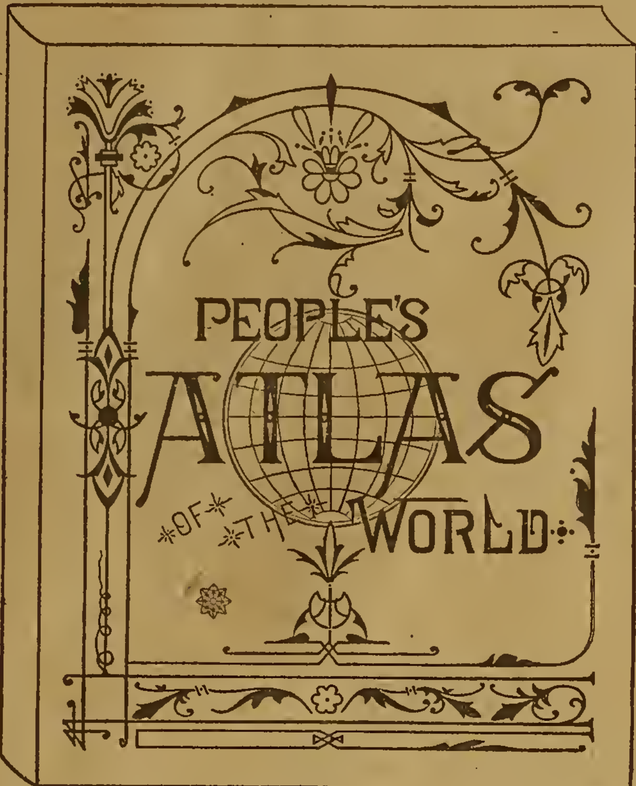

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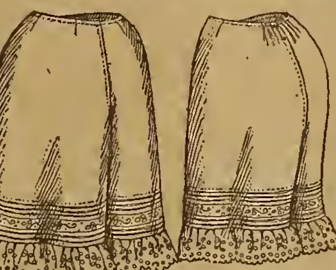

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FARM SELECTIONS

A SEVEN-YEAR COMPARISON OF VARIETIES OF WHEAT

About sixty differently named sorts of wheat are annually grown in comparative test at the Ohio Experiment Station. In this test the different varieties are grown on plots of one tenth acre, the plots being arranged so that a standard variety, Penquite's Velvet Chaff, appears on every third plot in the series, and in computing the results the yield of a given variety is compared with that of the two plots of Velvet Chaff between which it grew.

The treatment of the crop is as nearly uniform for all the varieties as possible. The land was selected, in the first place, for its apparent uniformity; a tile-drain is laid at one side of every plot; the plowing is done across the plots; all are manured alike with barnyard manure, distributed by a manure-spreader, which also is driven across the plots, thus giving no opportunity for differences in time of plowing or manner of manuring to effect the yield, and the greatest possible care is taken in seeding, harvesting and threshing.

Below are the general results of this test for the seven years, 1893 to 1899, inclusive:

The following sorts have exceeded the Velvet Chaff in yield: Poole and Mealy by an average of more than four bushels to the acre each; Red Russian by nearly four bushels; Nigger, Early Ripe, Currell's Prolific, Gypsy and Egyptian by two or three bushels; Mediterranean, New Monarch and Democrat by one to two bushels, and Bearded Monarch, Valley, Deitz, Lebanon and Hickman by less than one bushel each.

Of the sorts which have fallen below Velvet Chaff in average yield are Jones' Winter Fife, which has averaged more than three bushels less; Thiess and Silver Chaff, between two and three bushels less; Royal Australian (or Clawson), Early Red Clawson, Yellow Gypsy, Missouri Blue Stem, New Longberry, Lehigh and Martin's Amber, between one and two bushels less, and Fulcaster, Hindostan and Early White Leader, whose average yield has been less than a bushel below that of Velvet Chaff.

These tests have been made on a rather thin, somewhat sandy clay. On gravelly loams the Valley has made a relatively larger yield than that quoted above.

No variety has proved exempt from attack by the Hessian fly, but Mealy, Mediterranean, Fulcaster and Clawson seem to suffer less from the fall attack of this insect than most other sorts.

The Ohio station has never succeeded in growing spring wheat.—Bulletin of Ohio Experiment Station.

HORSE TALK

Never go near your horse without speaking to him.

A horse can travel better and with less wear and tear with his head free.

Use a check-rein with the bitting-rig, and when training, but when the colt has completed his education and can be used for regular driving take it off.

Breed horses with style and spirit enough to hold their heads up naturally.

Encourage your horses to lie down by making their stalls comfortable. The more they rest the better.

When driving these hot days give a few swallows of water whenever it is possible.

If heated do not let him fill up, but give a little at every trough.

Take a barrel of water to the field and give the work-horses a few mouthfuls every hour or so. It will help them as much as it will yourself.

Low mangers are best.

Keep them scrupulously clean. Any accumulation in the corners will soon sour in the hot weather.

Do not allow the dried perspiration to remain in the hair over night. It will cause the coat to fade.

A good brushing will rest the horse and is almost as essential as the feed.

Take the horse out on the floor or out in the air and it can be cleaned quickly and thoroughly.—Tim, in Farm Journal.

THE HESSIAN FLY

To this insect, either directly or indirectly, is doubtless due the almost total failure of the wheat crop in Indiana the present year. The freezing and thawing weather during the winter, owing to the absence of snow much of the time, doubtless had much to do with it; but the wheat-plants had lost much of their vitality during the fall, owing to the ravages of the fly, and were thus rendered much more susceptible to the influence of the winter.

Although this insect has been known in this country for more than a hundred years, its habits are not well understood by the majority of farmers.

The adult fly somewhat resembles a very small mosquito, being about one eighth of an inch in length; the female is more robust than the male, especially when full of eggs.

Soon after the adult fly comes forth the female deposits her eggs upon the upper side of the leaf. The eggs soon hatch and the young larvae work their way down beneath the sheath to near its base, which during autumn is just above the roots. Here they remain, absorbing the juices of the stem until full grown, when they assume the "flaxseed" state, in which they pass the winter. During April and May the main portion of the spring brood comes forth and the same process is repeated, the "flaxseed" state being reached just before harvest.

Preventive Measures.—The main question at issue is how to most effectually prevent its ravages. There are various means suggested, all of which possess some merit, but none of which will prove entirely successful when practised in the usual haphazard manner. There must be unity of effort all along the line in whatever undertaken.

Probably the most effective measures to be recommended are (1) sowing at the proper time; (2) sowing decoy strip; (3) thorough preparation and fertilization of the land, so as to provide the most favorable conditions for strong and rapid growth.

The active period of the fall brood in the northern counties extends (approximately) from the last of August to about the last of September, gradually getting later as they go south, so that in the southern portion they will be found at work probably as late as the middle of October. It is evident, then, that in order to avoid the fall brood of the fly the proper time to sow wheat in the northern counties is between September 20th and 30th, and in the southern counties from the first to the middle of October. The station will not sow earlier than the first week in October this year, as the flies were active throughout September in 1899. Decoy strips should be sown in the north the last week in August, and in the south the first ten days of September, plowing these under deeply before sowing the main crop.

This places the time for sowing some later than has been the usual custom, but by having the land in first-class condition the chances for success will be much greater than by practising the old method of early sowing, thereby giving the fly every advantage.—J. Troop, Horticulturist of the Indiana Experiment Station.

TWO COWS—TWO METHODS

The scrub and the dairy cow are products of directly opposite principles and methods of feeding and management.

The aim of the men who made and of the men who now own scrub cattle was, and is, to feed them only enough to keep them alive, and to give them as little shelter and care as possible. These men act as if every pound of food given a cow over and above what will keep her from starving is wasted. They seem to think (but they really never think, only act) as if a dairy-cow did not need anything more than a life ration, and no shelter better than the shadow of a straw-stack or a rail fence.

The aim of the men who made and the men who now own all of the improved cattle, whether beef or dairy, was, and is, to feed them every pound of food that they could be induced to eat and make profitable use of, and to protect them from all inclemencies of weather.—Jersey Bulletin.

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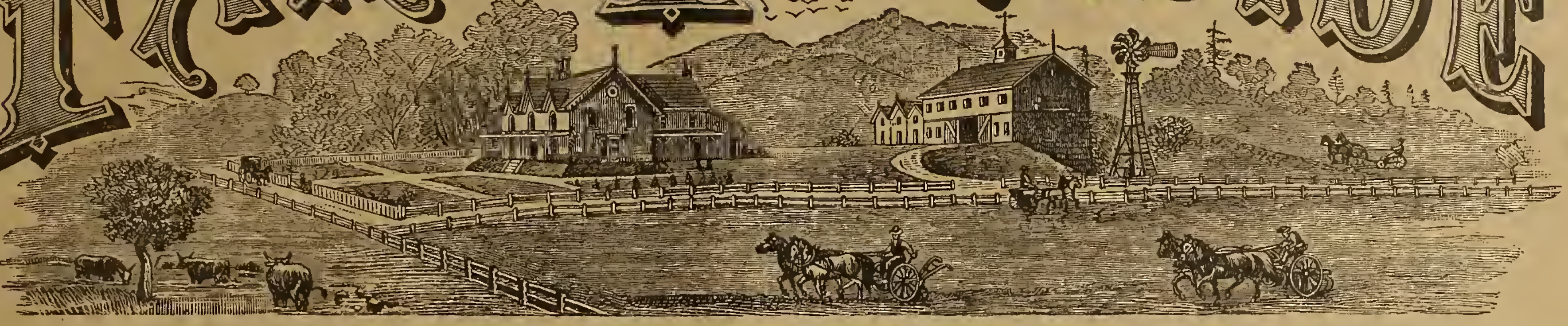

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YOSEMITE SCENERY

In presenting some views of the sublime scenery of the Yosemite valley the "Pacific Rural Press" says:

"The Yosemite has become somewhat trite as a theme for comment and illustration. Twenty-five years ago hardly a volume of our journal was thought satisfactory unless it had a series of views in the valley and a collection of tributes of its beauty and grandeur by the best available writers. Now, in the rush of later developments, the Yosemite is seldom noticed. It is but the natural course of events. The Yosemite has become classic; there it stands, accepted without debate, a masterpiece of the great forces which have formed the earth's crust, a sublime example of the transcendent intelligence which call those forces into existence. It is no longer necessary to inform people of its grandeur, nor to remind them of its significance as an exponent of creative power, nor to preach its lofty mission to lift the thought of mankind to higher things. And yet the Yosemite should not be lost sight of in current print. The rising generation should be exhorted to visit it, and those youths whose circumstances do not permit such journeys should be shown pictures which suggest its characteristic greatness and beauty. . . . Although, then, in one sense the Yosemite appears less frequently in public prints, it does not follow that the concession of the similarity betokens less of popular interest. The reverse is true. The valley has recently advanced notably in national prominence. It is now environed by newly made reservations. It is guarded in its water supply and in its safety from devastating forest-fires as never before. It assumes now new importance to the visitor and tourist, because it has become the magnificent gateway through which the formerly inaccessible grandeur of the higher Sierra region beyond it is now more easily approached. With the reservation of the Big Tree groves, through their purchase now ordered by Congress, the Yosemite will soon become the central gem in the string of beauties and wonders which will be reserved from further spoliation and for the enjoyment and uplifting of all generations to come.

"The progressive prominence of the Yosemite is also shown by the work which is being continually done for its improvement by the state authorities, to whom the valley was trusted years ago by the national government. The Yosemite commission is proceeding with improvements to render the valley more accessible to visitors and to minister to their comfort while there. The money granted by the state for this purpose is not large, and yet valuable improvements are secured each year. . . . Quite interesting improvements are projected for next year, including better roads, an electric-light plant, etc. With the vast water-power available, it would seem rational to have the valley transformed into a grand electric exposition by night, thus giving the falls a unique beauty of which the ancients could have never dreamed."

Yosemite Falls

Cathedral Spires

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IN AN article entitled "Causes of Anti-foreign Feeling in China," in the "North American Review" for August, Prof. George B. Smyth, president of the Anglo-Chinese college, Foochow, says: "Up to the fall of 1897 Shan-tung enjoyed an excellent reputation for its treatment of foreigners and native Christians; indeed, there were more Christians in that province than in any other in the Empire, except Fuh-keen. On the first of November of that year, however, there was a riot, in which two German-Catholic missionaries were brutally murdered, and Germany promptly seized upon the crime as a pretext for what it had long contemplated, the seizure of a portion of Chinese territory. On the fourteenth Admiral Diedrichs landed troops at Kiao Chow, and negotiations were entered upon for the formal cession to Germany of that which she had already seized. On the sixth of the following March a treaty was signed at Peking, by which the country round about the bay of Kiao Chow, as far inland as the neighboring hills, was ceded to the German Empire for ninety-nine years; the governor of Shan-tung was dismissed, six other high officials removed, an indemnity of three thousand taels paid, and a promise made to build three 'expiatory' chapels. Germany obtained, in addition, a concession for two railways in the province, and the right to open mines within a region of territory twenty kilometers along them. These were hard terms, but that which was most bitterly resented was the seizure of territory. This high-handed act worked an ominous change in the attitude of the people toward foreigners, and especially Germans. It was not safe for Germans to travel in small companies in the interior, and three who later unwisely did so were attacked, though they fortunately escaped with their lives. To punish the perpetrators of what the German government chose to consider another unprovoked crime the commander of Kiao Chow immediately sent troops to the scene of the attack, and they burned down two villages. This harsh and indiscriminate retaliation, in which the innocent suffered as well as the guilty, inflamed the people to madness, and many foreigners suffered serious results. These were not long in coming. A bitter anti-Christian, anti-foreign spirit showed itself throughout the province, which was later intensified by the Imperial Decree of March 15th of last year, issued on demand of France, conferring practically official rank on Roman Catholic bishops and missionaries. The position of equality with viceroys and governors thus given to the bishops, and equality with provincial treasurers, provincial judges, tao-tais and prefects given to the various orders of priests, together with the right of interview without the mediation of consul or minister, gave the Roman Catholics an influence of which the people had good reason to believe they would not be slow to avail themselves. In lawsuits between their adherents and non-Christian people the latter had, or thought they had, no chance; and, as in other provinces, there was general complaint of the constant interference of the priests in litigation.

"Enraged at the injustice thus perpetrated, seeing in the missionaries and the Germans the causes of the country's humiliation, and in the conduct of the latter especially the beginning of an attempt by the foreigners to seize the province and finally the whole empire, the Boxers began the series of crimes which have since made them infamous, preached a patriotic, anti-Christian, anti-foreign propaganda, and resolved to drive from the country the intruders, and all that they represented. They also made claims to strange spiritual powers, to influence the public. They practised hypnotism, and the effects which they thus produced on individuals awed the multitude into a belief in their possession of mysterious, supernatural powers. It came in time to be believed that they could make those who joined them impervious to the bullets of foreigners. The 'Boxer spirit' movement, as it accordingly came to be called, spread like wildfire, and led to frightful excesses, the burning of churches, the slaughter of native Christians, the murder of missionaries.

"Such, in brief outline, is the history of the rise of the Boxer movement in Shan-tung. But how did it come to spread till it covered the whole province, invaded the Metropolitan province of Chi-li, took possession of the capital itself, and now holds within its grasp the persons of the ministers of the great powers of the West? There is but one answer—by the connivance of the officials, by the treachery of the governor of Shan-tung, acting under the direct orders of the Dowager Empress herself. Had this wretched and cruel old woman been so minded, and had she so ordered, the movement could have been crushed long before it became dangerous; but she refused even to attempt to put it down, and degraded any official who was honest enough to oppose it and protect the Christians and foreigners within his jurisdiction. And all this because she thought she saw in the strength of the uprising, in its fierce fanaticism, in its murderous hostility to foreigners, the means of accomplishing the most cherished ambition, both of herself and of the bigoted crew of Manchu reactionaries who surrounded her, the expulsion from China of all foreigners and of all the ideas—religious, social and political—which foreigners represent."

DISCUSSING the Chinese problem the New York "Sun" says:

"Over and over again in her history China has been dismembered; but the partition has never been permanent, although in more than one instance it has lasted for upward of a hundred years. Always in the end have the lopped-off provinces been recovered by that part of China which remained independent, and it must be remembered that the advocates of partition confine their designs to the coast and the northern frontier, and purpose to allow the vast interior of the Middle Kingdom to retain independence. If the history of three thousand years affords any criterion for a forecast of the future, the independent core would ultimately recover the peeled-off sections, unless the latter could be repeopled with foreign emigrants, which is, of course, impossible.

"The wisest, as well as the cheapest, method of solving the Chinese problem would be, after exacting ample pecuniary reparation for the insults and injuries suffered, and insisting upon the condign punishment of all the guilty parties, no matter how high placed, to strengthen the progressive party in China by helping to place the supreme power in the hands of a sovereign known to sympathize with their purposes. The Emperor Kwang-su himself and Prince Ching are proofs that it is not impossible to find such a ruler in the Manchu reigning family, and, even were it otherwise, an acceptable candidate could probably be discovered among the descendants of the Mings. In the event of Kwang-su's death the progressive Chinese themselves would probably be ready to indicate a candidate. The most effective way of strengthening an enlightened and progressive sovereign would be for the four European powers which have profited by the work of mutilation—we refer to Germany, Russia, Great Britain and France—to concur in a self-denying ordinance and agree to surrender the seized territories so soon as the pecuniary indemnities due for the outrages perpetrated upon their subjects shall have been paid. That, however, is a counsel of perfection which the land-grabbing powers can scarcely be expected to adopt, although nothing is more certain than that the arbitrary mutilation of China begun by Germany is at the bottom of the present trouble."

GENERAL JOSEPH WHEELER in his recent convocation address at the University of Chicago said:

"In his first message to the first Congress Washington gave expression to this truth in these words: 'Knowledge is in every country the surest basis of public happiness. In a country in which the measures of government receive their impressions so immediately from the sense of the community as in ours it is proportionately essential.' In his eighth annual message Washington said: 'Promote, then, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion it is essential that public opinion should be enlightened.'

"My observations among the people of the Philippines and those of China very forcibly impressed upon me the importance of all institutions of learning devoting a full measure of effort to instilling a spirit of chivalry and patriotic devotion. It was to keep that spirit fresh and strong that Alabama enacted the law that the national flag should float over every school-house in the state. It is the utter absence of this feeling which has reduced China to its low stand among nations, notwithstanding the high culture which has existed in that country for very many centuries.

"The enjoyment of peace is a blessed boon to humanity, but the history of the world, from its earliest period, teaches that the only security for peace is to be always prepared and ready to engage in war. That nation whose people are ready to respond to a call to arms with men and resources for any emergency is the one that shall most certainly be able to avoid the desolation and horrors of war. It is largely for this reason that we encourage a martial spirit, the greatest—in fact, the only—barrier against aggression.

"It matters little how great its wealth, its excellence in literature and science and art, a nation unprepared and indisposed to battle in its defense forfeits the respect of the world. Assyria, Rome, Greece and Carthage excelled in wealth, in science and in art, but when wealth engendered luxurious living, the martial spirit which made these nations great began to diminish and decay, until they finally descended from the highest to the lowest grade of nations.

"So long as the dominant spirit which controls any country is one of honor, chivalry, glory and patriotism, so long will that nation continue to achieve power and greatness. The spirit of true nobility taught by American mothers has made our country the pride of the world. It was this spirit with which the ancestors of the people now before me were imbued and which caused them to strike for country and for home a century and a quarter ago. The necessity of patriotic teaching is, if possible, more important to-day than in the early history of our country.

"We are now a great world-power, and the destiny of the human race is in the future to be largely guided by the influence exerted by this government. This should be impressed upon the rising generation, and the memory of the flag of our country floating over the school-house and songs breathing patriotic devotion within its walls should be indelibly connected with the first impressions of the youth of our land.

"It is memories like these that create and foster that spirit which has been, and ever will be, the pride, glory, strength and safety of this great republic.

"Politicians may declaim about the dangers which lie in the path of our republic. They may tell of shoals upon which the ship of state will be grounded, and rocks upon which it may be dashed to atoms, but so long as we have educational advantages like those afforded by the University of Chicago we need have no fear about the perpetuity of republican institutions."

IN AN article in "Munsey's" for August on the future of Porto Rico General Roy Stone says: "It presents every conceivable advantage for American enterprise and skill, and if its attractions are properly developed they will be felt even beyond our own borders.

"The hard lines of life in the North, the discomforts and ailments inevitable in a cold climate, the longing for rest and ease and out-of-door life the year round, turn the hearts and eyes of millions southward. But heretofore they have sought in vain the perfect spot for a tropical home. Following the belt of the tropics around the earth, there are few regions that one would even stop to consider as a home, and those few have generally some serious drawback. They are either too hot, too wet, too distant from civilization, or they are badly peopled, misgoverned or habitually revolutionary. But with Porto Rico properly improved America could offer to the world an ideal semi-tropical refuge.

"Possessing the natural advantages of an even climate, never cold, and never hot as compared with the extremes of summer in our latitudes, and always tempered by the sea-breezes of the northeast trades, Porto Rico is easily accessible from America, and is directly on what will be the great lane of travel from Europe to the Pacific ocean by the canal of Panama or Nicaragua. Midway between North America and South America, it will be a veritable cross-roads in the travel of the world.

"If, with these natural advantages, and the attractions of a peaceful, sociable and hospitable population, it is provided with railroads, schools and colleges, well-kept towns and all the modern ameliorations of city and country life, it will have no drawback except the hurricanes which are pictured in the geographies—and these will have little terror for Americans, who learn how mild they are compared with our own cyclones.

"The island as a whole, under the fostering care of the American government, and with the stimulus of American, capital, enterprise, skill and energy, cannot fail in the near future to rise by leaps and bounds from distress and despondency to the highest plane of wealth and prosperity."

Frauds on the Farmer The unsuspecting farmer is still made the victim of all sorts of frauds, schemes and deceptions. It seems very strange, too, that with all the warnings given them by the agricultural press so many farmers remain unsuspecting and readily step into every trap set for them by designing rascals. The tree-agent business seems one of the most promising and fruitful fields for the operations of the swindling fraternity. The Ohio experiment station, for instance, has received the following letter from Marion county:

"There is a company of men canvassing this territory for fruit-trees. They are putting in what they call a 'model orchard.' They claim to be working directly for and in the interest of your station, which gives them quite a leverage with a great many farmers."

It seems hardly credible that any farmer can be made to take such bait. Every one ought to know by this time that experiment stations do not engage in the nursery business, and should not. Their duty and province is to solve problems touching the scientific side of soil tillage, and to furnish such information gratuitously to the farmers of their state, as well as assist them to do their work more expeditiously or with more satisfactory results. To sell the fruit-trees or plants is not a part of their functions. It still seems to be the old trouble. The experiment stations try their best to make themselves of use to the farmer. They woo him as an ardent lover woos a shy maiden; but he is slow to reciprocate, and more ready to take to a stranger and be taken in in return. The average farmer should pull himself together and get in closer touch with his station, not only in Ohio, but in other states as well. The Ohio station, of course, replies that all persons claiming to represent it in the way indicated are swindlers, and should be arrested for obtaining money under false pretenses.

* * *

For a year or two western New York fruit-growers and nurserymen have had much to say about an Ohio concern which sent agents all over the section selling pedigree peach-trees at a good round figure. The home nurseries were willing to furnish "just as good" at one half or one third the prices charged by the Ohio concern. I know people who bought peach-trees from both, paying fifteen cents or more a tree for the Ohio trees, while those from nurseries in western New York were promised them at from five to eight cents. I hear much complaint, however, about the New York trees. The Ohio trees were large, nice, smooth trees, apparently of one year's growth from the bud, while New York nurserymen in some instances furnished trees that showed signs of having several years' stunted growth. Evidently they were the trees left over from one season on account of under size, and had been given one or two years' growth more to bring them up to the size which a good tree should reach at the end of the first season after budding. If such is the case, the nurserymen who sold these trees for good stock deserve to be prosecuted for obtaining money under false pretenses also. I have heard some of our western New York fruit-growers say that they would rather buy those straight Ohio trees for fifteen or twenty cents apiece than those stunted two or three year old trees at five or six cents apiece, and I believe they are right. A calf or colt that has been starved and stunted the first year of its life will never again catch up or make as big an animal as one that has made good, thrifty growth during the first year. And so it is with trees. It's too bad to see our tree-growers resort to these practices! Don't do that, gentlemen, and then come to the meeting of the Western New York Horticultural Society, at Rochester, next January, and talk about the swindles perpetrated in this state by Ohio nurserymen and fruit-tree agents!

What is Koli Robi? An agricultural paper published in cultured Boston tells, to me, a rather amusing story: "One J. L. Ellsworth has proved that the koli robi, one of the most desirous of Southern vegetables, can be grown in Worcester. . . . The shape of the koli robi is that of an immense ostrich-egg, the small, short root being at the smaller end. From about the sides, even to the root, small, weak stalks rise, seemingly stuck on with cement, for they come off easily, leaving only a long white mark on the pale green skin. The koli robi is used for soups, and it is from this vegetable that the koli-robi soup gets its name." I wondered for awhile what this new wonderful vegetable could be, and in recognition of my want of knowledge I concluded to consult Prof. Bailey's Cyclopedia of American Horticulture, the second volume of which (E to M) had just come to hand. I failed, however, to find even the name of this Southern wonder mentioned, and made up my mind to write to Prof. Bailey and call his attention to the sad omission. And then it struck me that the koli robi is probably nothing more nor less than our common kohlrabi, a vegetable which I have grown for home use and market for many years, and which is by no means a Southern product. Mr. John Craig, in Bailey's cyclopedia, tells of growing this vegetable in the same manner as early cabbage is grown; namely, either starting the plants under glass and transplanting to open ground in early spring, or sowing seed right in hills, the rows to be two and one half feet apart, and the hills two feet apart in the row, and the plants to be thinned to one plant in a hill. If we were to grow them in this way we would not find much profit in growing kohlrabi, for, of course, they must be used and bunched while only partially grown and yet young and tender. When I read the proof-sheets containing Mr. Craig's article I added a little paragraph of my own, and quote it from the columns of the cyclopedia, as follows: "Kohlrabi may be grown, bunched, and put on the market in exactly the same manner as early table-beets are handled. In our Eastern cities, where the population consists to a large extent of people of German extraction, kohlrabi for table use is in good demand, or such a demand is easily cultivated. I find it an easy crop to grow, and invariably profitable simply because few gardeners make a specialty of it. As early in spring as the ground can be brought in best shape sow seed in rows with the drill, the rows to be about eighteen inches apart, and afterward thin the plants to stand four to six inches apart in the rows. Begin pulling and bunching when the bulbs have attained a size of from two to three inches in diameter. Make successional sowings, to keep up a continuous supply of the tender bulbs. They grow tough when nearing full development."

* * *

Reforesting Denuded Lands In a recent paragraph published in the FARM AND FIRESIDE (erroneously credited to my friend Fred Grundy) I called attention to the rapid growth often made by poplar-trees, and stated that there might be a field for some one to grow these trees for paper-pulp purposes. Dr. J. W. Beal, professor of botany and forestry at the Michigan Agricultural College, in a discussion of the methods of reforesting pine-stump land, delivered the following sentiments:

"The following varieties have been known to grow well in Michigan, each in soil suited to it: Norway pine, American elm, white ash, basswood, sugar-maple, black cherry, yellow birch, red oak, and perhaps also, with good care, butternut and walnut. Many other varieties have made valuable timber, but most of them grow too slowly for profit, or grow rapidly and make timber of poor quality. In 1863 Prof. James Satterlee, formerly of the college, planted a considerable grove of chestnuts, butternuts and walnuts near Greenville, Montcalm county. All of these have done well and are now healthy. The leading native trees on such land were white oak and black oak. In some places it may be profitable to grow aspens, and in other places poplars, with a view to using the timber for paper-pulp.

"There is no danger of planting the trees too thickly, but this work costs something. The better kinds selected for planting may be scattered about among the stumps, placing about four to the square rod, or six hundred and forty to the acre, and among these, and near them, should be other cheap and quick-growing shrubs to shade the ground and help keep out the grasses, herbaceous plants and weeds. For cheap nurse trees to start quickly and shade the ground there is nothing better than box-elder. On the light sand Jack-pine started from the seed is excellent."

T. GREINER.

SALIENT FARM NOTES

Own a Home Here is a letter from a FARM AND FIRESIDE "Reader" in Ohio, in which he briefly sets forth his condition and circumstances and then asks a dozen or more questions. He says, in part: "I am thirty-two years old, and have been a hired man on farms fourteen years. The past four years I have been saving as much as possible of my wages, and now have six hundred dollars. I have no home, and when sick or out of a job I have to go to a boarding-house in town and pay three dollars and fifty cents a week for plain board. I desire to change this program if it can be done. I can buy a small house and lot in town for five hundred dollars, and think I can furnish it well enough for myself for fifty dollars more; or I can buy a two-acre lot without any buildings just outside of town for two hundred dollars, and can build a little cabin on it and fence it for about three hundred dollars more, and I can get work among the farmers for at least eight months of the year; or I can go West, where land is cheaper, and buy, say ten to twenty acres, put up my cabin, and farm on a small scale until I can buy more land and get to be a real farmer. Which is the best plan for me to follow?"

* * *

Curiously enough I have recently received two other letters, one from a person in Pennsylvania and the other from one in Virginia, both situated very much as is "Reader," and both asking similar questions. Each of these persons appears to have been working, and spending his earnings as he went along, for some years, and each seems to have suddenly decided that the time has come when he should own a home of his own to go to when out of a job or disabled in any way. Each appears to have some knowledge of cookery and to believe that he can board himself for much less than he has to pay others to board him. The Virginia man says he can get board in winter for doing chores. The "chores" are feeding and caring for eight horses, thirty cattle, fifty sheep and fifteen hogs, cutting firewood, repairing fences, etc.; and he says, "I feel like I am getting rather too little for a cent, and when I am not earning wages I would like to have more time I can call my own in which to read, study, repair my clothes, etc." He, like "Reader," has several plans, and asks which is the best to follow.

* * *

While I would not undertake to decide for these men which plan would be the better for either of them, as much—in fact, all—depends on the man, I will say, positively and emphatically, that I would adopt one of them. Every man in this broad land should, and can if he will, own a home; and to this end I would earnestly advise every young man to bend his energies. However high and lofty his ideas and aspirations may be, the first thing he should strive for is a home of his own. When I hear that a young man has purchased a home, "be it ever so humble," my respect for him rises ninety per cent, because I feel assured it will make a real man of him. In ninety-five cases in a hundred the man who owns a home is a better man, a steadier and more conservative citizen, and more reliable in every way than any tenant or lodger. The owner of property is interested in the locality in which his property is situated, and naturally very much interested in good government, both local and national; in fact, this element is the bulwark of this great nation.

* * *

Years ago I heard an old man say, "I would rather live on mush and milk in a home of my own, even if it were only a shanty on a lot, than to live in any other person's house and pay board in money or labor. In his own home a man is free and independent, and can come and go as he pleases, and arrange things for his own convenience and comfort. First a little home, next a sensible little wife, and then you are a whole man." Of the three plans presented by "Reader" I would quickly choose the second. No man knows the possibilities of two acres of land until he has worked it several years. I have known a man to grow fifty-four bushels of corn on half an acre, and all the work, after the plowing, was done with a hoe and steel rake. The quantity of food that can be grown on one acre that is worked to its full capacity almost surpasses belief. A man who owns two acres of good land has a good living in sight; and if it is located near a large town he has much more than a good living. It would be a grand good thing for the country if we had a million more owners of one to five acre tracts and that many less tenants.

* * *

Summer Company A few days ago I saw three young ladies from the city step off the train, and one of them rushed up to a quiet old farmer who was standing on the platform, and greeting him with "You dear old uncle!" gave him a hearty handshake and a kiss; then turning about, introduced the others as "The two lady friends I wrote you about, you know." They, too, were delighted to meet the old gentleman, and he shook their hands as vigorously as if they were voters and he a candidate for office.

"Now," said he, quietly, "you girls look about town a little while I complete my business, then I'll bring the surrey around and we'll drive out home."

A few minutes later I "accidentally" met him on the street. "You have more company, I see!"

"Yes," he replied, in his slow, quiet way; "one of my nieces and two of her young friends have dropped in on us for a three-weeks' stay. They are employed in a large mercantile establishment in the city, and are allowed a vacation of three weeks just now, and some time ago she asked me if they could spend it in the fields with us. I informed them that they could if our regular fare was good enough for them, and they have come. Yes, I have quite a good lot of company at my house in summer, but I don't mind it. The company takes care of their bedrooms, and wife merely cooks a little more of our regular fare, while the washing is all done by a woman in town. Our company are free to go and come as they please, and if they are not on hand at meal-times they know where the pantry is. There are swings and hammocks and benches under the trees, the old horse and the surrey, and we have a lawn party with ice-cream and a little cake occasionally."

* * *

Winter Fuel This is the time of year I lay in a supply of coal for the winter. The roads are good, and from forty to fifty bushels can be hauled by a good team easily; the coal is dry, dealers have plenty on hand, and prices are as low as they are likely to be. When cold weather comes on prices go up, everybody is buying, very often the supply runs short, miners are likely to strike and cut off the supply entirely, while the roads are almost sure to be more or less heavy. I would advise every farmer who burns coal to lay in enough for the winter right now. If it is put into a dry shed it will keep six or eight months. It would seem that no farmer who lives far from town would need any advice along this line; yet I know lots of farmers who seem never to think of fuel until snow is flying.

FRED GRUNDY.

OUR FARM

FARM THEORY AND PRACTICE

Cost of a Bushel of Wheat.—There is very little definite value in the pnblished estimates of the cost of producing a bushel of wheat, but every farmer may get good information from an estimate of his own, based upon a careful expense account with the crop. Conditions of production and methods of book-keeping vary so much that a farmer should depend upon his own figures. I do not believe in an elaborate system of book-keeping for the average farm. Let me suggest a way of learning the relative cost of wheat, as compared with that of other crops, and I am sure that its adoption will give interest and good information to all those who have been farming without any close calculation of expense. In every neighborhood there is a pretty well-established wage at which a man and team are presumed to be able to work profitably for any one needing help for a short time. Oftentimes it is more than the least that one wanting work would be willing to accept if the job were a steady one. With this as a basis, fix the price at which man and horses can afford to work steadily upon a farm, the man providing board for himself and his horses. Anything less than this wage would impoverish the man, and anything more should go to swell the net profits of the crop against which he charges his labor.

Having done this, it is easy to keep account of the time employed upon the wheat crop, the cost of seed, fertilizer, threshing, etc., putting everything upon a cash basis. To this add ten or fifteen per cent of cost of implements annually for depreciation and a small interest, and the difference between this sum and the selling value of the grain and straw represents the cash rental received for use of the land.

* * *

Land Rental.—The effort to fix a cash rental for the land, so that it may be entered as an item of cost of crop, is confusing, and results are usually misleading. No one can determine with nicety just what the use of the land is worth. He has his capital invested in land, the soil must be in use, and it is simpler to let the expected profit from the farming of a field take the form of rent, the effort being to secure the most possible rental an acre without undue soil exhaustion. Putting all labor of man and horses into the form of cash at a moderately low wage, because the work is steady and at home, and having account of cash, cost of seed, etc., it is easy to ascertain the cash rental from land devoted to the various crops. Such data in themselves make no one the richer, but they are worth something to one when in doubt about breaking land for any crop, and I find much satisfaction in knowing something of the probable cost of growing an acre of wheat or corn or potatoes. One crop can often be produced by a soil when another cannot, and some crops leave a soil in better condition than others, and these are factors the practical man considers, of course; but he should know definitely what outlay of money and labor is called for, on the average, by any crop. The plan I suggest has been helpful to me, and is so simple that it is recommended to all farmers, especially the young. Know what a crop is doing for you. Now is the time to begin with the coming wheat crop.

* * *

Marketing Potatoes.—There is a distinct saving in weight of potatoes by disposing of them as soon as dug. No matter how dry the ground may be at digging-time, and how clean the potatoes, there is considerable loss in weight and in bulk within a few days after digging. I have tested this matter to my satisfaction, and find that the farmer who can draw his potatoes to market as fast as they are dug has the advantage over the man who must pile them up for two or three weeks. Loss from holding comes in several ways. Besides the actual loss in weight, the culling cannot be quite so close when the potatoes lose some of their freshness and plumpness, and in hot weather there is a little loss from rot or cut or bruised tubers. An extra handling costs from one to two cents a bushel. Everything considered, forty-five cents a bushel for potatoes taken direct from the field when dug is about as good as fifty cents two weeks later. It takes a rise in price of ten per cent to let one out whole for holding a few weeks. The next serious loss does not come until the potatoes sweat or sprout in winter storage. This is followed by shrinkage in weight.

One is often asked whether potatoes should be dug as soon as ripe. As a rule all early potatoes will do better when left in the ground until the nights become cool in September, no matter when they ripen. There is some danger of second growth in a very wet season, but there is more danger of rot and shrinkage from early digging, unless the potatoes can be marketed at once. If they are wanted for market they can be dug at any time, but cannot be placed in much bulk in car or store. If for home use do not dig until nights become cool.

* * *

The Potato-patch.—On many farms the potato crop is a minor one, and a little good soil is devoted to that crop year after year. Often it is a small strip of land near the barn, and rotation is not practicable. In such case there is no better plan than to apply manure early in September and plow it under three or four inches. On this sow rye at the rate of six pecks of seed to the acre. It will make a sod by winter, and grow in warm days of winter and early spring. When the rye is less than a foot high turn it under as deeply as the ground is usually plowed—seven to nine inches. This will bring the manure and its leachings near the surface, mixing them with the soil, and the rye will add to the organic material in the soil. Such treatment of the soil not only enriches it for potatoes, but the rye counteracts the tendency of the manure to produce scab. Sow the rye early in the month, so that it can make good fall growth, and the roots will penetrate the soil deeper than the plow goes. Plow the rye under early or it will make too big a growth and dry out the ground too much for the succeeding crop. David.

REPAIRING WASHOUTS

During times of much rain in summer much damage is done to fields and roads by washouts. The continued rains loosen the soil, and when the short, heavy showers come the rush of water tears up the loosened soil and carries it away. In this way I have known deep ditches to be torn in summer-fallowed fields and in fields under cultivation. In the same way roads, especially hillsides, are badly torn up, causing danger to travel and much expense for repair.

There is a simple and effective way both to prevent this damage from going beyond control and to repair it, no matter how large the gutters are. Take fine hay, weeds, straw, or even briers if not too large, and scatter a few handfuls in a place in the bottom of the washout. Put stones on this, to keep it in place. Twenty or thirty feet farther down-stream put in another check like this, and so on throughout the washout. Of course, if the gully is larger, and much water comes down it, more hay and heavier stones must be used. The idea is that these checks slacken the speed, and hence the tearing power of the stream, and also hold all sediment. Dams put in a deep washout thirty rods long in a wheat-field in the fall, at intervals of thirty feet or so, caused the filling up of the ditch by spring. Deep and dangerous washouts on hillsides on the public highway can either be prevented or remedied by checks of the above kind properly put in and looked after from time to time. The usual way of dealing with these hillside washouts is to let them go until the hill becomes impassable, then make a job of grading, etc., at an expense of thirty to fifty dollars to the county. Here a stitch in time would save ninety.

The washouts in dams of ponds can be repaired in much the same way. Sprinkle a thin layer of fine hay, wet it, punch it into the bottom and sides of the washout, put on a thin layer of dirt, then more hay, wet it, punch in the hay with a spade, and so on until high enough. A washout thus repaired, if done right, will stand more wear from rushing water than the solid bank beside it. The water washes out some of the dirt on the outside of the dam, but the hay overlaps the dirt and forms a complete protection.

Anton Leister.

BALANCED FOOD FOR THE SOIL

The true objective point to be arrived at by the practical farmer is, or should be, that of keeping up a balanced fertility. It is not an accepted fact that any single carrier of fertility when used where other essential manurial constituents have not been previously applied will prove to be profitable. No doubt much damage is resulting from the too free use of acid phosphate when not used in connection with those which go to make up a better balanced fertilizer. For profit commercial fertilizers should be used judiciously. This is not the usual way, nor is it the paying one. Too frequently the soil is supplied with one or more constituents of which there is already an abundance. The best plan is to ascertain by experiment what the soil needs, and thus save useless waste.

By actual test on one's farm it can be easily ascertained whether a complete manure (so called) containing all three of the principal plant-foods is actually needed, or whether phosphoric acid alone would not prove to be the only fertilizing constituent that it is necessary to use. There is much direct testimony that the use of plain phosphates is giving better results than the mixed goods advertised as complete manures. When it is considered that mixed fertilizers cost twice as much as the one containing phosphoric acid only the loss is apparent. Nevertheless the "agents of potash salts and nitrate of soda" are quite sure that their respective fertilizers supply exactly the material most needed by the soil. Nitrogen and potash are certainly needed, but the question to be considered is that of buying only that which is imperative in keeping up a balanced fertility.

The fact is not so generally recognized as it should be, that one of the real functions of the clover crop is that of economically raising the standard of fertility and preparing the soil for the production of a profitable grain crop. Before clover can fully exercise its function as a nitrogen-gatherer and soil-renewer the soil must be supplied with an abundance of phosphate. The depletion of phosphoric acid, even on dairy and stock farms, must be guarded against. Even where humus is abundant in soils increased feeding power can best be secured by the free use of the cheapest and most available form of phosphoric acid. In Prof. Roberts' excellent practical work on the "Fertility of the Land" it is stated that "a soil capable of producing 30 bushels of wheat an acre removes from the soil 14.4 pounds of phosphoric acid. The same soil in producing 3 tons of clover hay in a season removes no less than 33 pounds of phosphoric acid an acre. At the same time, of course, it enriches the soil in nitrogen; but this power has been shown to be very dependent upon the phosphate and potash supply of the soil, hence one reason may be found for failure in growing clover. The results as given above are from an average of 778 tests of wheat and of 178 tests of clover. In the dairy and stock business the results of analysis are still more interesting, showing that the exhaustive nature of soil fertility, where these lines of farming are followed, is largely governed by the phosphate supply, while at the same time the potash and nitrogen supply is increased in the soil. A cow giving an average of only 7,200 pounds of milk a year removes as much phosphate (in the milk only) as 30 bushels of wheat. Every 1,000 pounds of live weight of cattle require 18.6 pounds of phosphoric acid; sheep, 12.3 pounds; swine, 8.8 pounds. The potash needed amounts only to 1.7, 1.5 and 1.8 pounds respectively." These facts demonstrate conclusively the relative importance of phosphates for the economical production of beef, milk or mutton.

In corroboration of the preceding statements the chemical analyst of the Royal Dublin Society, in recommending the basic slag, or Thomas phosphate, as an economical source of phosphoric acid, and especially as a restorative of pasture-land, says: "It supplies two of the fertilizing agents such land usually requires—lime and phosphoric acid. It is true that in the proportion in which the slag is generally used—about five hundred pounds an acre—the quantity of lime added is very small, yet experiment has shown that the lime has an appreciable effect, while the phosphoric acid has, under favorable conditions, a marked influence, especially in promoting the growth of clover. This effect, as is now well known, brings about another most important beneficial result. The clover, through the influence of its root nodules, assimilates nitrogen direct from the atmosphere. Thus a fertilizing agent which contains absolutely no nitrogen becomes, through the medium of leguminous plants, an agent for enriching the soil in nitrogen."

The advantages of a non-acid phosphate for general use is becoming more apparent every year. Basic slag is a fertilizer of this class, and requires no sulphuric acid to render it soluble and available as plant-food. Another advantage is that the phosphoric acid it contains costs only about one half what it does in ordinary superphosphate. It comes gradually and regularly into action—more or less so (owing to the amount of rainfall)—and where five hundred or six hundred pounds are used to the acre it is not only capable of supplying the proper amount for the winter-wheat crop, but retains in the soil a sufficient supply for even a second or third crop of clover, grass or corn. Basic slag, or Thomas phosphate, does not appear to be so well known by wheat, clover, corn and grass growers in the United States as its merits seem to deserve. In Europe its value is recognized, for it has received the unqualified indorsement of the leading agricultural journals of Great Britain and Germany, where it is known to be a fact that where the land has been tested with basic slag the herbage has been greatly improved; in fact, so much so that animals are instinctively attracted to it, seeming to have a natural craving for it. W. M. K.

SKIMMED MILK

A food that is too little appreciated upon the farm, the writer believes, is skimmed milk. Of course, it is not wasted, but it does not come to the table as much as it should. Five pounds of skimmed milk (two and one half quarts) have nearly the same food value as a pound of round steak, and four pounds have a greater nutritive value than a quart of oysters. But it is objected that skimmed milk does not "stick to the ribs." This is because a large quantity must be drank to obtain desired nourishment, and also because skimmed milk is so easily assimilated that the craving sense of hunger is not appeased.

Skimmed milk may be used, however, to advantage in cookery as a substitute for whole milk, as well as in the place of water. Recent experiments have shown that bread mixed with skimmed milk made loaves of very uniform texture and of equal digestibility, though slightly less light and flaky than bread mixed with water. They also showed that skimmed-milk bread contained about ten per cent more flesh-forming substance (protein) than bread mixed with water. A pound of bread mixed with skimmed milk would therefore furnish more nutriment than a pound of the water-mixed bread.

But skimmed milk may be used in other ways than in bread-making. It will take the place of whole milk in making soups, chowders, stews, rice puddings, custards, pumpkin pie and squash pie, and in most cakes. When a student in the Michigan Agricultural College the writer was one of four young men who kept house. It was found by experiment that the skimmed, or, more literally, the separated, milk obtained from the college dairy made as good biscuit, griddle-cakes and Indian pudding (three of our stand-bys) as whole milk. After this discovery whole milk was discarded and separated milk used in all our cookery demanding either whole milk or only water. M. G. Kains.

NOTES FROM GARDEN AND FIELD

PLANTING STRAWBERRIES IN THE AUTUMN.—I have just received the few plants of those everbearing and fall-bearing new strawberries which I had ordered some time ago for the purpose of trial. They are especially three varieties—the St. Joseph, said to produce three crops a year, and the Saint Antoine de Padoue, another French sort, said to be a large-fruited "perpetual" variety, besides the American variety named "Repeater," which is said to give a second crop in September. All these, I believe, are perfect-flowering sorts. If the claims of their introducers are well founded I ought to be able to get a fair crop of fruit next fall from the plants set at this time, and perhaps from some of the runners they are liable to make yet this season or early next spring. The plants received (by mail) are ordinary runner plants. I do not think it is necessary to buy pot-grown plants. I can make a pot-grown plant of any runner plant without very much trouble, and I can afford to take a little pains with these few high-priced plants. In short, I have set the plants in medium-sized flower-pots (plant-boxes would do as well, possibly better) in rich soil, and sunk them into the soil of a well-shaded greenhouse. Of course, a common cold-frame would answer as well, or any partially protected spot outdoors where the plants find a little shade and can be given careful attention in regard to watering. When thus handled the plants will soon fill the pots with roots, and they are then, to all purposes and intents, regulation "potted plants." Any time thereafter they may be set in the regular bed where they are desired to remain for fruiting. I cannot say that I am oversanguine of ever being able to grow large crops of strawberries in the fall.

* * *

MAKING CUCUMBERS FRUIT.—Mrs. L. M. F., of Vermont, complains that her cucumber-vines produce at first a large number of false—that is, male—blossoms, and asks me if there is any way to make them produce fruit-blossoms earlier, and thus get an earlier and larger crop. We might do a great deal of theorizing on this question. It is well known that anything that threatens the life of a plant, such as an injury or want of food or excessively dry weather, is apt to induce the plant to produce fruit. Sometimes we will find a dying apple-tree full of fruit-buds and setting fruit heavily when healthy and thrifty trees around it produce no bloom or fruit. For that reason it has been suggested to start plants under glass, in pots, boxes or inverted sods, in the expectation that the check which they surely will receive in the transfer to open ground will set them to early fruiting. This is probably the most feasible method of producing early fruit. It has also been suggested to plant old seed—that is, seed which has lost some of its original vigor—thus producing a weaker plant, which will set fruit earlier than a very thrifty one. I will say, however, that it is natural for these running vines to produce at first a lot of male (staminate) blossoms, and then the true fruit-blossoms afterward. Nature is bound to give plenty of opportunities for pollination, and produces the pollen which represents the male principle in greatest profusion. The most we can do in order to hurry our cucumbers to early fruiting is to plant them early, or perhaps start them under glass, and to have the soil for them well supplied with plant-foods in well-balanced proportions. In case there should be an excess of nitrogenous matter in the soil the plants would be liable to make a very succulent growth, lots of vine, possibly with an abundance of "false" blossoms and few fruit-blossoms. These plants need potash and phosphoric acid as well as nitrogen, and sometimes the application of wood ashes to otherwise well-manured soil will have a tendency to start the fruiting more promptly when the vine growth would otherwise have been excessive. I am a great believer in the free use of good stable manure for all these garden crops.

RUST ON ASPARAGUS.—P. L., a reader in Sauk City, Wisconsin, writes that his asparagus has for some weeks been affected with a reddish-brown rust, and the stalks are now appearing to be in a dying condition. He asks whether it is advisable to cut and burn the stalks, or whether in that case there would not be a new growth, which might weaken next year's production. I believe that if the stalks are gone that far already the best thing to do is to cut and burn them. I doubt that there will be many new stalks this year, being so late. The old stalks have only the mission to feed the roots—that is, to help them digest their food, and store it up in the roots as reserve energy for next year's cropping. No doubt the rust might have been prevented if measures were taken in time, while the stalks were yet healthy and only giving indications of the coming trouble. If sprayed promptly, and perhaps repeatedly, with Bordeaux mixture the disease would not have made much headway.

* * *

YIELD OF TOMATOES.—A reader in Ohio would like to be told how many ripe tomatoes he could grow on an acre of ground, and which kind is the most desirable or most productive. He intends to grow the crop quite extensively for a canning-establishment situated about a mile from him, and he expects to get fifteen cents a bushel. I do not feel competent to answer these questions in a definite way. Who would be rash enough to say how many bushels of tomatoes you or I or anybody else might grow on an acre of ground? Who can tell how many bushels of oats or potatoes or onions or any other crop I might be able to grow? It depends on the land, on the management, on the season. In a favorable season and under favorable circumstances the yield might come up to over a thousand bushels an acre; but I would hardly expect more than half that number. A fairly good yield on the average soils of New Jersey, where tomatoes are largely grown for the canneries, is about eight to ten tons, or from three hundred to four hundred bushels, and there are a good many fields where the crop does not come near that figure. Some years ago I think the canneries used to pay up to eight dollars a ton; but the price has been reduced to about six dollars, and in some places perhaps to five dollars. The rate of six dollars corresponds quite closely to fifteen cents a bushel, I think. Whether this pays the grower or not is a question which he must decide for himself. Some people can grow oats at twenty-five cents a bushel, and make it pay, while others would lose in the transaction. So it is with all other crops. If you know how to produce large crops at a comparatively small cost you can make almost any crop pay, even if the price obtained for it is not so very large. When it comes to the question of variety, I believe the only one who can answer it for you is the canning-house. They usually require the grower to grow a certain variety, and in most cases they furnish the seed. I know of one canning-establishment (near Rochester, New York) which accepts nothing but the old Acme. This suits their purposes best, as I understand it, on account of color. But almost every such establishment has a certain kind which it prefers to all others. For general purposes of canning and catchup-making there are a large number of suitable varieties, like Perfection, Matchless, Imperial, Stone, Mikado, etc.

* * *

ONIONS IN THE SOUTH.—I wonder if any of our friends have ever tried the plan of growing onion seedlings in the fall, say August or September, and setting them out in the field in October or November. A South Carolina reader asks me what I think of this plan. I cannot advise him in regard to this, simply because I do not know the climatic conditions sufficiently. Here, if I could succeed in wintering the plants in the field all right, I believe the larger share of them would go to seed in the spring. And that may also be the case in North Carolina. I would like to hear from Southern readers who have some experience in planting onions in the fall. The seedlings might be grown in the fall in cold-frames, then held over until spring and planted. I find that when I sow seed under glass as early as January 1st, and set the plants as early as the ground is in fit condition, some plants go to seed. Some of my best onions this year are grown from transplanted seedlings started from seed in March. So you see that you must stay within a certain limit. If our seedlings are too old they will as certainly go to seed, and therefore fail to make good bulbs, as sets will do that were allowed to grow too large the first season. To make sure of good onions we must plant small sets, or seedlings, while yet in strong-growing condition.

T. GREINER.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

San José Scale.—J. G., St. Mary's, Ohio. The San Jose scale is very minute and round, and the infected wood looks as if peppered. If you will send on suspected specimens I shall be pleased to identify them for you.

Papaws Dropping.—L. A. M., Alvira, Ill., has a ten-year-old papaw-tree that blooms every year and sets fruit, but when about five eighths of an inch long it all drops off. The tree stands alone in the yard and is healthy, but there is no other papaw-tree within a mile of it. "Why does it fail to grow fruit?" I am not familiar with this fruit under cultivation, and had supposed it to be self-pollenizing, as the flower has numerous stamens, although the pistils are few. There are some varieties of fruits that do not get pollenized from their own blossoms that would fruit well if standing near a seedling tree of the same variety, and that may be the case with the tree in question. Not being fertilized the fruit would fall off soon after setting. Like results sometimes occur where trees are growing in an uncongenial soil and are starved, or where growing too close to other trees that at times rob their roots of moisture.

Planting Cuttings and Shoots of Gooseberry, Blackberry and Raspberry.—F. M., Aztec, N. Mex., inquires about the best time to plant cuttings of gooseberries, blackberries and raspberries. The climate is dry and it is necessary to practise irrigation. It is a good fruit region, but they being located forty miles from market small fruits are neglected. They desire to grow them for home use, but have resided there but one year, and can get but little information as regards their culture. Gooseberries are easily raised from cuttings, which grow more easily if put in in the fall after the leaves have fallen and the young wood is fully matured. The month of September would be about the right time for making and planting them. The cuttings should be about eight inches long, with the lower end cut just below a bud and inserted in the soil five or six inches. The cuttings should be covered during the first winter with straw or similar material sufficient to keep out frost, or at least to prevent the ground from frequent freezing and thawing during the winter. The two-year-old plants are sold chiefly, and much time will be saved by using them instead of cuttings. Blackberries and red are best to be planted out in early October or any time after growth has ceased and there is no danger of their starting a new growth before winter sets in. They, too, will be better if given a light covering of straw through the first winter. Blackcap raspberries are more certain to grow if planted in early spring. Where well-rooted plants are used any of these varieties may be planted successfully.

Red, or Orange, Rust of the Apple.—On June 20th I received from W. L. G., Saulsbury, Tenn., samples of leaves from some eight-year-old apple-trees, and about July 20th other samples from the same trees, with the statement that this is the first year that they have been affected in this way, and that nearly all the trees in the orchard are so affected. There is very little fruit on the trees this year, although they have previously borne nicely for such young trees. Several years before he had an older orchard affected in the same manner, and finally lost the trees. The samples were referred to Prof. B. M. Duggar, botanist of the Cornell experiment station, and he pronounces the disease the "apple-rust," or orange-rust of apples, which is caused by a fungus belonging to the genus Roestelia. The disease is one stage in the life-history of the cedar-apple. The fungus is a microscopic plant which grows upon the apple, causing rust, and the spores, or germs, of this rust go to the cedar, thus producing "cedar" apples. Again, or in turn, the spores from the "cedar" apple are capable of producing rust on the apple when the season and other conditions are favorable. He says that no definite remedy can be suggested, as none has yet been found. It is a precaution, of course, to have no cedars near the orchard; but cedars at a considerable distance may, by means of winds, furnish annual infection to the orchard. It does not winter on the apple, and it is said that if there are no cedars growing in the vicinity it will soon disappear. It is often destructive to the foliage and fruit of the apple, and ultimately causes the death of the trees. Mr. G. has cedar-trees near his orchard, and I advise their removal as the most probable remedy.

The Greedy Scale.—H. E. W., Avon, Ill., has sent me some limbs from apple-trees that were set in 1898 on ground that was first cleared from forest. They are infested with a scale-insect. She writes that several of the trees set at the same time are infested with the same insect from the ground to the tips of the branches. She has washed some trees with kerosene emulsion, and it appears to have taken them off, but she desires to know if that is the best treatment, and the name of the insect. Considerable time elapsed before they reached me, and the samples were not in a condition to be easily identified. After giving the specimens a careful examination I believe them to be infested with the greedy scale (Aspidiotus rapax), first described by Prof. J. W. Comstock in the annual report of the United States Department of Agriculture for 1880. The samples were also shown to Prof. Otto Lugger, state entomologist of Minnesota, who coincides in my opinion. It has been named the greedy scale on account of the great number of plants upon which the species subsist. It has been found feeding upon the apple, pear, quince, olive and many shade and ornamental trees and shrubs in California. Wherever it occurs in great numbers it is very destructive. It feeds upon the bark of the trunk and limbs of trees, as well as upon the leaves and fruit of some trees. It has been noted as found in various parts of California and in Florida, Texas and New Mexico. In France it is found on the camellias and some other plants in greenhouses in great abundance. Its life is imperfectly known to Northern entomologists. I do not think that it has heretofore been observed as far north as in this case. There are no observations on record which indicate the number of annual generations, and the fact that the insect passes the winter in several different stages may complicate the question of remedies. The remedy tried is a good one, but I think that a summer wash or spraying with a solution made by diluting one pound of whale-oil soap in four or five gallons of water, and one spraying or washing in the latter part of winter should be more convenient and equally as effective. Every insect touched by this wash will be destroyed. If I am correct in my identification we are liable to have it generally disseminated in our orchards in a short time unless closely watched for, and if it endures our climate it will prove a serious pest.

Planting Blackberries, Raspberries and Gooseberries.—G. G. B., Rube, Wis., writes to FARM AND FIRESIDE that he desires to get some information about planting and growing two acres of raspberries, blackberries and gooseberries, and the best varieties for his locality, etc. The ground he proposes to use is low, is tile-drained and has a black, sandy surface soil eighteen inches in depth, with gravel underneath. It was well manured and grew a crop of corn last year, and is planted to spring wheat this year. He proposes to put on a good coat of manure this fall or winter and plow it under next spring, unless it would be better to manure and plow this fall."

REPLY:—I should judge the site to be a good one for raspberries and blackberries, but a very poor one for gooseberries, owing to their liability to mildew on such soil and location. It will be better to plow the ground deep rather late this fall, and work the surface up fine in the spring before planting with a spring-tooth harrow, especially so if manure is to be plowed under, as a better stand of plants will be secured. Set the plants as early in the spring as the soil is in good condition for working. For convenience of cultivating the rows should run the longest way of the plot of ground, and preferably north and south, so that the sunshine can reach both sides of the rows during each day. I have always had the best returns from planting the rows of blackberries eight feet apart, and plants in the rows three to four feet apart. Blackcap raspberries are all the better for being the same distance apart in rows, and four feet in the row, but may be planted four feet apart each way, and after the first crop is taken off take out every alternate row. I practise this latter method, and find the first crop on the rows afterward taken out pays better than any other crop that could be grown between the rows the first year after planting. If the rows are eight feet apart a crop of potatoes or beans may be raised between the rows the first year without injury to the berry-plants. Red raspberries should be planted in rows about six feet apart, and three feet apart in the row. Gooseberries should be six feet apart in the rows, and four feet in the row. The best variety of blackberry for Wisconsin is the Ancient Briton. The best blackcap raspberries are Palmers, Older and Nemaha. The best red raspberries are Loudon and Cuthbert. The most reliable gooseberries are Houghton, Downing and Red Jacket. The blackberries and Cuthbert raspberries will do better if laid down and covered with earth every fall, to afford winter protection, but should be uncovered quite early in the spring.

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HELPING THE BOYS

"Story not available, because plot is not new," was the hastily scribbled note from a busy editor that accompanied a rejected manuscript of the writer's a year or so ago upon its return to his desk. I smiled as I glanced through its pages once more. It was an old story—as old as tradition itself. Strange I had not thought of that before writing it. And yet it was founded on facts from real life.

We have all heard it. The old farmer, too old to longer work the homestead, gives it over to his sons. Once his property is out of his hands he is anything but welcome about the old home. He is in the way of wife and children, his ways are not agreeable, the little he eats and wears—but why continue? It is such an old story of selfish neglect and ingratitude.

There may be exceptions to the rule, but it is rare indeed that the petted child repays his indulgent parents for their kindness. The boy who is given every opportunity without being forced to work for it gets the notion in his head that his parents owe it all to him, and he will expect their helping hand to always help him over the obstacles in his way. The child has rights which parents are in duty bound to respect, but it is a mistake to consider that property or material gifts are among them. If the parents—no matter what their wealth may be—give a boy a strong mind and body and good moral training they have done their full duty by him; and if he has any manhood about him he will ask no more, certainly no more than to be helped through college, and unless they are well-to-do he cannot ask that.

A good common school is within the reach of every farm boy, and if his parents do their duty by him, and the school be what every country school should be, he will be through with the common branches when thirteen years of age. In this day of cheap bicycles and horses good high schools are within the reach of nearly every boy. This he should finish in three or four years. Then the boy will doubtless have definite ideas as to what he desires to do—whether to continue his studies or enter actively into a career. In this crisis of his life a wise parent will do much to shape his future destiny. No arbitrary course should be followed. A boy of eighteen years should be manly enough to resent being driven, and sensible enough to listen to the counsels of one who has his interests at heart, as a father will have. The boy should steer his own craft. Better to learn the ropes and self-reliance in shallow water than to meet the storms of later years with neither knowledge nor self-confidence, without which there can be no success.

It is safe to bank on the boy who has the ambition to put himself through college. It is the noblest of discipline to mind, muscle and morals. If the parents are able, they can furnish the way for the boy to put himself through; but it should be understood that every dollar loaned shall come back. It will be a source of pride to him in later life that he can stand with that throng of men among whom are some of our brightest and noblest citizens—the self-made men from the farm.

Give the boy sound morals, a good common-school or high-school education, and let him do the rest for himself. It is far better that he work the first few years of his life than that he be given a start in life that will tide him over the first years, and when it is wasted by indolence or mismanagement, leave him stranded, to begin life anew without sound business principles and training.

J. L. Irwin.

SUBIRRIGATION FOR THE LAWN

Having built a new house, and being desirous of having a good lawn, I decided to make a test of subirrigation, or under-surface watering. The area designed for a lawn was one hundred and forty feet in length by forty feet in width. The soil was a thin clay loam underlaid by a hard, tenacious clay. The ground was thoroughly plowed, and several two-horse loads of leaf-mold, muck and well-decomposed stable manure were incorporated with the soil. This work was done last fall. Owing to delay in the building of a line-fence it was not until after the first of May that anything further was done with the proposed lawn. At that time five lines of three-inch tile were laid lengthwise of the lot. The rows, or lines, of tile were eight feet apart, and they were put twelve inches deep, the tiles resting directly upon the hard subsoil. Care was taken to have the bottom of the ditches level, or at least the slope was slight and all in one direction.

The tiles were simply placed end to end, and as the ditches were made narrow at the bottom there was little danger of the tile being displaced when they were covered. At the center of each line of tile a tile shortened slightly was placed upright, for the purpose of admitting water. An upright tile was also placed at either end of each line. These upright tiles came just a little below the surface of the ground, and were thus hidden from view. After the tiles were put in and the surface well raked and carefully smoothed the following mixture of grass-seed was sown: Two pounds of June, or Kentucky, blue-grass, and one pound each of redtop, perennial rye-grass, timothy and white clover. A smaller portion of sweet-scented vernal grass was also added. After the seed was sown about half an inch of leaf-mold was scattered evenly over the surface.

During the months of May and June the rainfall was unusually deficient, and water was turned into the tiles once a week. The result has been extremely satisfactory, for up to date the lawn is a signal success. Ever since the middle of June it has been run over once a week with the lawn-mower. This has killed most of the annual weeds, and the grass is now so thick that few perennials have any chance to grow. The flower-beds and shrubs that were planted this spring have been benefited fully as much as the lawn.

The following points appear to be fully established: First, watering a lawn by subirrigation is more economical than by the ordinary method. It saves both time and water. Second, the work is more efficiently done; there is very little danger of excessive watering, and we avoid the growth of shallow-rooted weeds that are so often stimulated by frequent and slight sprinkling of the surface. Third, the surface soil does not become so hard and compact as it does by continued surface watering, but retains more of its original friable condition. Fourth, in rainy or wet weather the tiles rapidly remove the surplus moisture from the surface by the ordinary process of drainage.

William R. Lazenby.

RECLAMATION OF ALKALI LANDS

When the alkali contains considerable quantities of carbonate of soda the usual remedy is a heavy application of gypsum, or land-plaster, and good drainage if necessary. When other alkali salts or seepage waters have accumulated in excessive quantities tile-draining is essential. So sudden and unexpected is the damage from the rise of seepage water and alkali that many valuable farms have been abandoned. A large tract near Salt Lake City has been given up on this account.—Orange Judd Farmer.

RECENT PUBLICATIONS

Slavery, and Four Years of War. A political history of slavery in the United States, together with a narrative of the campaigns and battles of the Civil War in which the author took part, 1861-65; by Joseph Warren Keifer, brevet Major-General of Volunteers; ex-Speaker of the House of Representatives, United States of America, and Major-General of Volunteers, Spanish War. Illustrated. Two volumes. G. P. Putnam's Sons, New York. The author had unusual opportunities during his years of service in the field in the War of the Rebellion of taking a considerable part in nearly all the campaigns of that conflict. His book is therefore one of facts, most carefully accurate, without being tiresomely presented. In fact, the pleasing style of the author makes the story he tells most interesting. The summary of the rise, development and fall of human slavery in this country is a distinct contribution to the historical and war literature of our day. In short, it is the most complete, succinct, precise history of the war, the slavery that led to it, what the conquered lost and what the victors won, that has yet appeared.

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FEEDING COW-PEAS AND BEANS

Cow-peas and beans are more valuable than corn for their protein. Beans contain about twenty-three per cent of protein, one and one half per cent of fat, fifty per cent of starch, three per cent of mineral matter and about twenty-two per cent of crude fiber. Corn contains about ten per cent of protein, five per cent of fat, seventy per cent of starch, one and one half per cent of mineral matter and about twelve per cent of crude fiber. Fractions are omitted for convenience. It will be noticed that beans have twice as much protein as corn, and twice as much mineral matter (lime for shells, etc.), while corn has more fat and starch. With corn at sixty-five cents a bushel the feeding value of beans should be about $1.20, with the same weight a bushel; but much depends upon the kind of beans. They are very cheap at eighty-five cents a bushel, especially as they are, in some states, four pounds a bushel heavier than corn. With feed so low one may be tempted to feed too much, which should be guarded against. It may be added that as both beans and corn contain a sufficiency of fat and starch, the hens get more starch than protein; but starch is also necessary. Beans may be fed raw, but should be ground, though not necessarily fine. If they are cooked they may be thickened with bran and corn-meal until the whole is a stiff dough. They are very wholesome and are excellent for fowls. At eighty-five cents a bushel they are worth nearly one and one half cents a pound, and in proportion to the protein, compared with corn, are worth more than twice as much as corn. Cow-peas are about the same in feeding value as beans.

CROP-BOUND FOWLS

The following is a method for curing crop-bound chickens: Pour into the mouth all the warm water it will hold; have the water as warm as possible, but not to scald. Work the crop carefully, to break up the mass, holding the chicken by the feet, head down, still working the crop, and the broken-up portions will pass out through the mouth. Repeat the dose of water until all soluble portions are removed. Whole corn, wheat, oats, etc., will readily pass out. The portion remaining unbroken will probably be a stone, piece of coal, rag or string. If either of the former, take a round, smooth stick the size of a lead-pencil and eight inches long; pass this gently into the mouth and into the crop, being careful not to get it into the windpipe. Press the hard substance carefully against the stick, withdraw the stick slowly, and follow up with the stone or other substance. This can be pressed up and passed out through the mouth. Be careful to keep the object against the stick as you withdraw it. To remove rags, grass, string, etc., use a surgeon's probe, or any instrument having a long handle and opening as do forceps. Be careful when placing the foreign substance in the jaws of the instrument not to catch the crop and lacerate it. This method can be used for chicks as well as fowls. All this can be done in a few minutes and avoids cutting. Feed soft food for a week, and also give a little sweet-oil.

MARKET POULTRY AND FAIRS

Although some managers of fairs and poultry shows draw the line when they reach market poultry, giving such no place, yet they cannot fail to observe that no matter how meritorious a breed may be its utility as a money-making fowl on the farm is the first consideration on the part of those who buy. This is shown in the popularity of some breeds, even those that are not admitted in the standards, for the claim in favor of white breeds, even those that are not admitted in the standards, is that "pin-feathers do not show on them" when they are "dressed for market," which expresses in a few words that the market qualities are always paramount to every other advantage, or to how many points the birds may score. While breeders derive their custom from the producers of market poultry, yet they take but little interest in that branch of the poultry industry, some of them treating the matter of recognition of the market-fowls at shows as of no consequence, which is one of the greatest mistakes made. The simple capture of a few premiums on pure breeds at the shows is as nothing compared to the fostering of the improvement of market-fowls, for it is from that direction that all the purchase-money comes.

FEEDING POTATOES, CARROTS, ETC.

Potatoes, turnips, carrots and all kinds of vegetable foods aid digestion and dilute the concentrated grain, as well as assist in affording a variety. The roots should be fed in troughs, both with and without ground grain. By the term "roots" are meant turnips, beets, potatoes, carrots and parsnips, because they are really the bulbs or roots of plants; and as they are grown at but little expense they afford a cheap food if they can be properly prepared for the fowls, which, however, is easily accomplished with a root-cutter. One advantage in feeding cut roots is that if one does not use too much ground grain he is not liable to make the hens too fat. If ground grain is not fed with them one cannot feed too much of the cut roots, as they are composed largely of water. The proper way is to take half a peck of the sliced or cut roots, sprinkle the ground food over it (one pint to the peck), and give it to the fowls. Linseed-meal, bran, ground meat, middlings, oats, corn-meal, etc., may be mixed and then sprinkled over the roots.

THE EARLY PULLETS

There are now a large number of pullets on farms that were hatched last spring, and some of them are already laying, though it is yet too soon to expect them to do so as a whole. Not until October or November should the pullets be of sufficient growth to be relied upon as regular producers, and even then it will depend upon management for the best results. What is necessary now is to keep the pullets growing, so as not to have them go into the winter season in an immature condition; for should they not begin to lay before cold weather they may not commence before spring. If the pullets have been on a good range they will no doubt have an advantage in growth, and it will be well to allow them a mixed diet. Give bone, meat and bran, and make more room in the poultry-house for them by selling off the cockerels. Destroy all sickly pullets, as they will not be worth keeping, and, above all, do not crowd too many together in the poultry-house.

SPECIAL CHARACTERISTICS

There is no breed that has completely fulfilled all the requirements of the farmer, for the reason that no breed can be made to excel in certain characteristics without displaying its predominant trait so prominently as to place it far in the lead in that particular respect, and also to render all other meritorious characteristics to appear deficient. Breeds that excel in a single characteristic, however, may possess other qualities, but which are not prominent simply because comparison causes a marked difference to such a degree as to allow the breed to appear deficient even where excellence really exists. A breed may be superior in egg-producing qualities, yet not be classed among the market breeds, though it may even excel over some breeds in that respect.

CLORINATED SODA

The above solution is well known and highly recommended as a cure for roup. It comes in bottles holding about one quart, and costs about one dollar for the imported and fifty cents for the domestic solution. The solution is a very powerful disinfectant, and is expensively used in the practice of medicine for washing ulcers and other foul discharges. It is easily prepared, as follows: Dissolve one and one half pounds of carbonate of soda in one quart of boiling water. In another vessel dissolve one pound of chloride of lime in three quarts of water. Mix the two liquids, and filter through blotting-paper. Place in tightly corked bottles, and keep in a dark place. Use it as a wash once or twice a day for a fowl affected with roup until the discharge ceases.

FEEDING AND MANAGEMENT

There are a few rules absolutely necessary in the care of all varieties of poultry. Feed regularly at stated times, and give no more than will be eaten up clean. A change of food will be relished and will give a good return. Nests and roosting-places must be kept clean and free from offensive odor. Fresh clean water should be supplied every day. Quietude and freedom from alarm of any kind are necessary to command their confidence, which is a very important consideration; keep them familiar with your presence and voice, and do not disappoint their confidence. Ground plaster is one of the best disinfectants to allay the offensive odors of the hen-yard, and costs but little.

WHEN THEY WILL PAY

In purchasing trios for spring remember that the Leghorns, Hamburgs, Langshans and Houdans will lay by next April if hatched as late as last June. The Langshans usually lay earlier than some of the large breeds. In selecting Plymouth Rocks, Brahmas, Cochins and Wyandottes, however, endeavor either to procure old fowls, or pullets that were hatched not later than April. For breeding purposes the winter laying is no object, and late-hatched pullets will answer if mated with an old cock or early cockerel; but for winter laying get them as large as possible.

INQUIRIES ANSWERED

Dysentery in Turkeys.—E. A. S., Statesville, N. Y., writes: "My young turkeys, about fifty, were raised on wheat, bread and cracked corn. Some of them have dysentery. I have tried several remedies."

REPLY:—Change the diet, confine them for two or three days, and allow a mess twice a day of one part linseed-meal and two parts bran scalded.

Hard Crop.—P. R. S., Pomfret, Md., writes: "Give a remedy for hard crop in little turkeys, attacked when about two or three weeks old. I have tried castor-oil."

REPLY:—You should have mentioned mode of feeding, as there may be error in that respect. Castor-oil is injurious to young turkeys. There may also be local causes or surroundings, or even lice.

Black Eggs.—F. O. K., Ashley, Mass., writes: "Why are my hens' eggs black when cooked? Some of them run under the barn and drink the liquid manure, and some run in the orchard."

REPLY:—Several cases have been known of similar circumstances, and it has been ascribed to the food, to too much sulphur, to excess of coloring matter in food, and to the abnormal condition of the fowls.

Temperature in Brooders.—E. P. C., Dunlap, Kan., writes: "1. With the bulb of the thermometer in the brooder, what degree of temperature should be maintained? 2. What high or low temperature is injurious? 3. What is the value of Kafir-corn compared with Indian corn, for poultry?"

REPLY:—1. Not under eighty or over ninety-five degrees; if too high the chicks will come out; if too low they will crowd. 2. During dry weather with very young chicks seventy degrees for a short time may do no harm. Over one hundred degrees is dangerous. Chicks also vary in vigor and hardiness. 3. The two foods are very nearly equal in value for poultry.

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QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Poison-ivy.—J. M. W., Harbor Springs, Mich., wishes to know how to get rid of poison-ivy without handling it or destroying a lawn. It is a singular fact that some persons can handle poison-ivy without being poisoned, while others are severely poisoned by touching it. Employ one who is immune to root up the plants in your yard, carry them to a brush or rubbish heap and burn them. The plants can be killed without handling by applying concentrated sulphuric acid every two or three weeks in the spring-time, when the plant is growing most vigorously. Apply about half a teaspoonful of the acid to the stem of each plant. Used with care very little of the grass will be killed.

The poison of this plant is an oil, named toxicodendral. Being insoluble in water it cannot be washed off the skin by water alone, but is readily removed by alcohol. The remedy for poisoned hands or face is an alcoholic solution of sugar of lead. Dilute the alcohol about one third with water, and add all the powdered sugar of lead it will dissolve. Rub the solution over the affected skin two or three times a day until cured. The solution itself is a rank poison if taken internally.

Castor-bean Culture.—C. B. W., Victoria, Tex. In answer to your query we republish from FARM AND FIRESIDE the following: "The castor-bean plant wants a warm, rich soil, and with good culture will yield, south of the fortieth parallel, fifteen to twenty bushels to the acre, but the average is not over ten bushels. The soil should be put in thorough condition, and the beans planted at the same time and in the same manner as corn, except that they should be planted in hills five feet apart each way, three or four beans to the hill, and every seventh row should be planted with navy-beans or potatoes, to permit of the passage of a wagon in harvesting. The culture consists in thinning the plants to one in each hill when about six inches high, and in keeping the ground loose and clean. The harvesting should begin when the pods begin to crack, which will be some time in August. A wagon is driven along the open rows, the ripe pods gathered and thrown into it and carried to the drying-yards, which should be like an old-fashioned threshing-floor, and preferably upon the southern slope of a dry knoll. The heat of the sun does the threshing by causing the pods to pop open. Rain should be avoided if possible. After being threshed the beans are cleansed by a fanning-mill and spread upon the barn floor for further drying. Where a sufficient quantity is raised it is better to have drying-sheds for both pods and beans. St. Louis is the castor-bean market."

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Swine-plague.—F. A. W., Mulhall, Okla. What you describe is swine-plague, or so-called hog-cholera.

Hemorrhage in the Lungs.—M. A. H., Henderson, Iowa. What you describe is hemorrhage of the lungs; but what caused the hemorrhage, or what morbid process or disease produced the same, cannot be learned from your statements. Any treatment very likely would have been in vain.

Probably an Actinomycom.—V. S., Catlin, Wash. What you describe appears to be an actinomycom (so-called lump-jaw) in the bone. Since the steer is now two years old, and the morbid process began when the same was yet a calf, or perhaps a yearling, the prospect of a cure is a very slim one, and the best advice I can give you is to fatten the animal and to convert the same into beef. This can be safely done, because so long as the animal is not otherwise ailing or emaciated, but is in a good and thrifty condition, the beef is perfectly good and wholesome; at any rate, infinitely better than that of any tuberculous cow allowed to be butchered for human food.

An Injured Cow.—J. L., Larimore, N. D. The injury to your cow, the same or very similar to that sustained by the mare of M. L. K., Eutaw, Ala., does not in the least affect the milk, but probably renders the cow unfit for breeding. The same, therefore, should not be kept in a pasture together with two or three hundred of cattle and seven or eight bulls.

Paralysis of Penis.—W. T. S., Coutchman, Texas. When your five-year-old horse was castrated last spring the penis, it seems, was injured by a bungling operation, and in consequence became paralyzed. It may be that a judiciously applied suspensorium will do some good; but in such a case a prognosis can be based only upon a careful examination. Please read the heading of the veterinary column.

Crooked Legs in a Young Colt.—T. S., College Springs, Iowa. If the crookedness of the legs of one of your twin colts is confined to the joints the prospect that the same will grow up a useful animal is a very fair one, especially if from time to time a little correction is applied by judiciously paring the hoofs as soon as the colt is old enough or the hoofs strong enough for that process. But if the crookedness is in the bones—that is, if the bones between the joints are bent or crooked—the prospect of the colt outgrowing the crookedness is a very slim one.

Agalactia for Three Days.—J. D. N., Hallsville, Ohio. If your cow yielded a good quantity of milk immediately after calving, and not merely a small quantity of a serous fluid or colostrum that had accumulated in the udder, then for the next three days produced no milk at all, and after that produced an ordinary flow of milk, it would indeed be a singular case; but it would be nothing uncommon if, as hinted above, only a small quantity of a serous fluid was obtained at the first milking, for in that case the mammary glands were not yet prepared to perform their functions immediately at the birth of the calf.

Possibly Tuberculosis.—G. P. B., White City, Kansas. The hacking cough and the falling off in flesh, in combination with the fact that your cow is a Jersey and six years old, raise sufficient suspicion that she may be affected with tuberculosis to make it advisable to subject her to the tuberculin test. If you write to your state veterinarian he will undoubtedly inform you where the tuberculin can be obtained and how the test has to be applied. The slight attack of garget in one quarter, the diarrhea for one day and the subsequent constipation were probably produced by entirely different causes not now acting any more.

Three Questions.—H. E. R., Middletown, Md. 1. The best remedy for healing wounds and cuts on horses consists in scrupulous cleanliness and in maintaining strict asepsis. 2. Sore shoulders caused by an ill-fitting or dirty collar require the same treatment, and besides that a removal of the causes and absolute rest until a healing has been effected. 3. Good, sound and nutritious food in sufficient quantities given at regular times, careful grooming and moderate exercise, combined with good care in general and pure water to drink as often as the animal may desire, will put a horse in a good marketable condition quicker than anything else.

Troublesome to Milk.—R. E. L., White Oaks, N. M. It may be that the extraordinarily large teats of your cow make it troublesome to milk her, but I have never yet met with a case in which large teats made the milking impossible. If the teats are exceedingly large the milker may use both hands on one teat at the same time. I cannot recommend any milking catheters or milking-machines, no matter how ingeniously constructed, for wherever they are used garget will soon result unless the most scrupulous cleanliness and strict asepsis are maintained, something you will find more difficult if the teats are excessively large than the milking by hand.

Possibly Navicular Disease.—C. B. S., Camden, S. C. You give a detailed description of what you have done, but fail to describe the lameness and actions of the horse when moving (walking or trotting) and when at rest, which is infinitely more important for diagnostic purposes than a knowledge of what has been done. The only remark of yours having any bearing upon the nature of the lameness is that the hoof was contracted, that the contraction has been partially removed, and that the lameness is yet the same, consequently one is led to suppose that the contraction was not the cause, but rather the result, of the lameness. A good way to ascertain whether a lameness like that shown by your horse is caused by navicular disease or by some other cause is to put a bar-shoe on the lame foot, bringing pressure to bear upon the frog. If it is navicular disease the lameness will at once very perceptibly increase, and the bar-shoe, of course, must be removed; while if it is not navicular disease the bar-shoe will not exert any influence upon the lameness. Navicular disease is, practically, not amenable to treatment, but the lameness can be somewhat decreased if the quarters of the hoof are not cut down, or if the shoes are provided with heel-calks, and if thus the tendons, and consequently the navicular bone, are relieved from a certain amount of weight and pressure, which thereby is thrown upon the bones.

The Last Stage of Some Worm Disease.—H. W. S., Letcher, S. D. What you describe looks to me like the last, or fatal, stage of some worm disease. Make a post-mortem examination of the first calf that dies, and examine particularly the lungs, and with a pointed pair of scissors clip open the bronchial tubes clear down to their finest ramifications, and you very likely will find the cause. If you should not, examine the liver and the intestines. If you find the worms, as I expect you will, keep your calves next spring and summer away from all low and swampy places and also from all pools and ditches containing more or less stagnant water. Water freshly drawn from a good deep well or obtained from a good spring is all right.

May Have Been Tetanus.—B. A., Clarksville, Ark. According to your rather meager description it may be that your horse died of tetanus, or so-called lockjaw, but if so you must have overlooked a very important and characteristic symptom; namely, the inability of the animal to open its mouth. I do not know of any poison except strychnine that would produce similar symptoms; but if your horse had been poisoned with a fatal dose of strychnine he would not have lived three days, but would have died inside of a few hours. If, on the other hand, the horse could open its mouth like any other horse there was no lockjaw; but in that case your description of the symptoms and of the result of the post-mortem examination is so defective that no diagnosis can be based upon it.

Possibly Mange.—L. L., Copenhagen, N. Y. You ask many questions, but give very little information concerning the disease about which you ask the questions. It may be that the disease on the body of your horse is mange, but the swelling of the legs very likely is due to some other cause; for instance, to so-called scratches, pimples and cracks on the posterior surface of the lower joints below the fetlock. If so, the swelling, unless the case has become chronic, will disappear if you bring these sores to a healing by making twice a day a liberal application to all of them of a mixture composed of liquid subacetate of lead and olive-oil, one to three. Keep the animal on a clean and dry floor until a healing has been effected, and then see to it that these parts are kept clean and properly groomed. Concerning the skin disease on the body of your horse, the best advice I can give you is to have the same examined by a competent veterinarian—there ought to be no lack of them in your state—and then as to treatment to follow his advice.

A Lame Horse—A Tumor.—J. K., Cedar Falls, Iowa. As to your horse, it may be that the lameness has some other cause than the so-called seedy-toe. If the lameness is the most conspicuous when the horse leaves the stable, and improves during exercise, it may possibly be navicular disease or even ring-bone that causes it. As to the separation of the wall of the hoof, I surely did not advise the use of a leather pad and of oakum and tar, but to cut away as far as practicable any loose horn, and to lay the separation bare and to dress it perhaps with absorbent cotton and tincture of aloes, to keep it dry and aseptic. Further, I advised you to shoe the horse in such a way as would relieve the tender parts of any weight and pressure.——As to the tumor, such a tumor either must be left alone, or if an attempt is made to remove it, it must be completely removed; for if one gets scared while performing the operation, and removes only a portion, he may be sure that almost any tumor will resent the interference and soon make up for the loss by a more vigorous growth. Such things must be taken into consideration before the surgical knife is applied.

Perhaps a Roarer.—S. J. H., Baxter, Iowa. It seems your horse is a so-called roarer; that is, an animal in which more or less difficulty of breathing and an audible noise at each breath is produced by some obstacle in the respiratory passage as soon as the respiration is accelerated either by hard work or by fast traveling. If the hill of which you speak is rather steep, it is therefore possible that the difficulty of breathing sets in and the noise (roaring, whistling or grunting) is heard when the horse is ascending, and not when descending the hill or when driven on level ground, unless the speed is considerably increased or a rider is put on the horse's back and compels the latter to trot or to gallop. The obstacle to the free passage of the air may be of various kinds, and in different cases may have a different seat; but in a majority of cases it is brought about by paralysis or a diseased condition of one of the recurrent nerves, and consequently by a failure of the corresponding arytenoid cartilage to open the glottis at each inspiration. As long as the respiration is not accelerated by hard work, a speedy gait or excitement, and the air passes slowly into and out of the lungs, the glottis, being opened on one side, offers space enough for the necessary quantity of air to pass without producing an audible sound; but as soon as the respiration is considerably accelerated the air must be forced through a narrow opening with more or less velocity, and the greater the latter or the narrower the opening the more audible will be the sound produced.

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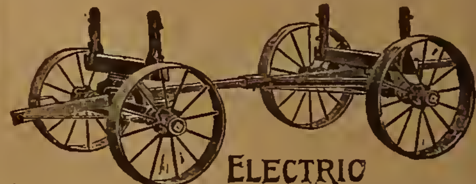

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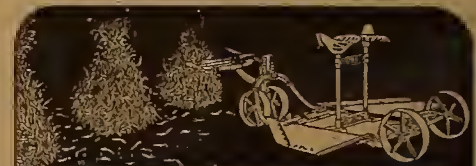

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THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

HOW OUR GRANGE WAS ORGANIZED

It was a delightful August evening, after a hot, sultry day. Mrs. Graham drove over to the village post-office for the mail, and while waiting for the "down" train went up to Mrs. Burnham's for a long-neglected call.

"What, you here!" cried she, in mock displeasure, to Mrs. Brown. "What a gadabout you are, anyway. Honestly, I believe you go to church six Sundays out of the year, and possibly one picnic. Mrs. Burnham, let's organize a society for the prevention of cruelty to husbands and children, and look after this Brown case." And without further greeting Mrs. Graham dropped into a comfortable chair on the cool porch. The others laughed at her characteristic greeting. She was an energetic, well-educated farmer's wife, who believed that the sum total of human happiness could be found on the farm.

"Oh, dear, oh, dear!" cried she, vigorously fanning herself, "it makes me sick every time I come by that cemetery. The fence is down, the ground overgrown with briers and weeds, and Jones' sheep are pasturing over the graves. Some of the monuments are down, and others soon will be. It's a shame we don't get at it and fix it."

"I feel terribly ashamed of it myself," said Mrs. Burnham. "Sister Jennie visited me last week. Naturally she wanted to visit mother's grave. You know, we have it inclosed with an iron fence, but we have never felt able to fence Uncle John's lot. Jennie went over to the dear, neglected spot, and burst out crying. 'Oh, Clara,' said she, reproachfully, 'how could you neglect it so!' And then, seeing how it hurt me, she exclaimed, 'Forgive me; I know how hard it is to get anything of this kind done. But it is a disgrace that people who cleared the forests and gave this lovely land to us should lie so neglected. Why don't the people of Burton clean up the cemetery, fence it and make it a respectable place?' I told her we had tried again and again; that none of us wanted the piece of ground so dear to us all to be so sadly neglected. But what is one person's business is nobody's. We fenced in our lot; several others have done the same."

"How barbarous!" ejaculated Mrs. Graham. "To think that only the friends of the comparatively few who are able to be cared for are paid this reverence! Mrs. Smith told me the other day that her folks were saving to get enough to put up a fence; that they had enough to build a plain one, but that they wanted theirs as nice as the others. And here we have more than enough spent in building these unsightly, selfish fences to fence the whole cemetery. I have been looking up the local history of this community since I became a resident here. I find that the very man who gave the plot for a burial-ground lies absolutely uncared for. John Walker, who, more than any other man, helped to found the library and reading-room, lies with a broken slab and briers and weeds in commemoration of his services. I might name others who, fifty years ago, took a prominent part in the development of the county, whose graves lie in a disgraceful tangle of weeds, because their families have moved away. It's a shame!" Mrs. Graham broke off.

Little Mrs. Brown, though an interested listener, had said nothing. She knew too well the justness of Mrs. Graham's strictures. Now she joined in the conversation. "Mr. Brown and I have spoken of this matter," said she. "Each year we have determined that this one should be the last to see the graveyard in so deplorable a state. We tried to get interested parties together, but seldom succeeded in getting more than two or three. After several such unsuccessful ventures we were compelled to give up the place. Corn-cutting and wheat-seeding came on, and the cleaning of the graveyard, like the repair of our roads, was left to a more convenient season. Will you let me suggest that we three form ourselves into a committee, to see that the work is done this year? We have all spent time and energy enough each year to do the work if we could only get together."

"Mrs. Brown wants to form some sort of a trust to further trample on the rights of we poor down-trodden men!" exclaimed Mr. Burnham, coming in at that moment. "Explain yourself, so that we may be, if not willing victims, at least able to know our fate."

"Willingly," assented Mrs. Brown. "We were just having our annual airing of views over the disgraceful condition of the cemetery. We thought possibly we could each of us invite several families to meet and devise means of carrying out the work we have talked about so much."

"A capital idea," replied Mr. Burnham. "They can meet here, can't they, mother?" glancing at Mrs. Burnham.

"Certainly," she replied. "Let's have it a week from to-day, as so many come after their mail at that time."

So it was decided, and a list made out of those who would be most interested and the most likely to help.

"And be sure," said Mrs. Graham, who had had large experience in getting things of a public nature done, "be sure that none of you say that we had decided to do so and so. Lead up to the matter gradually, and if possible convey the idea to each that he or she suggested this plan, and that you are only willing seconds to their lead." And with cordial good-nights and best wishes the hopeful friends separated.

A week later a dozen families met at the Burnham home on the edge of town. Soon the men adjourned to the cemetery, to lay out plans for the coming war on weeds, while from each buggy came suspicious-looking baskets.

"We knew that you would want to serve refreshments," explained Mrs. Graham, "so each of us brought something. It was Mrs. Brown's idea," nodding brightly to that happy woman. "We kept a list of what each could furnish most easily. Each knew what the other would bring, so there will be no surplus of cakes and lack of fruits, etc. Oh, yes, there is the wagon." And hastily going to the road, she gave directions for the unloading of several freezers of cream that had been gathered up among the interested parties.

"How lovely!" exclaimed Mrs. Burnham, delightedly. "Let's spread tables here in the yard." And while the happy workers were getting out the dainties so dear to the feminine eye and heart the men returned.

"Let us go into the byways and hedges and compel them to come in," cried Mr. Burnham, in mock solemnity. "It is Saturday; half the country round is in town; let's go and invite them to the feast the gods have set before us."

"Goddesses," corrected Mrs. Graham, with a majestic wave of the hand.

"I beg your pardon, American goddesses—the truest, the best in the world," assented Mr. Burnham, with a gallant bow and wave of the hand. "The plans are all laid, Brown. We'll bring 'em in and let 'em make suggestions to their hearts' content. By easy stages we will lead them to believe they suggested our plan, and that, in fact, the whole thing would have fallen through had not a merciful Providence sent them our way."

And thus with pleasant talk but earnest minds this little band soon gathered about the tables, and the invited ones made suggestions and waxed zealous in the cause when they found how well received were their hints and advice. And the outcome was that before another month rolled round the cemetery was clean and free from weeds, a new fence was built, broken-down monuments set up, and a piece of unsightly ground had become a lovely resting-place for the beloved dead.

Again the leaders met at Mr. Burnham's. It was a central point for all.

"When will we repaint the parsonage?" inquired Mr. Brown. "It's rather unsightly."

"And a stable is needed," chimed in Mrs. Burnham. "It's disgraceful the way poor Mr. Dean had to go so far to care for his horse last winter."

"Yes, and we ought to have sheds for the horses and buggies," said Mr. Burnham.

"Let's form ourselves into a permanent society. There are so many improvements needed that we could make if we could get together without so much trouble. Then the winter will soon be here, and we can have our long-talked-of reading club." It was Mrs. Brown who spoke—Mrs. Brown, who had been kept so closely at home by household cares that lines and premature gray hairs showed the havoc time and hard work, with few recreations, were playing with her beautiful face.

"I will heartily second the motion," said Mr. Brown, with that grace and tenderness so characteristic of the American farmer who takes pride in his business and his family. "If a permanent organization will help mothers as much as these few meetings have, an old codger like myself will have to look well to his laurels. Why, mother and I enjoy our moonlight drives as much as we did twenty years ago, don't we, mother?" Mrs. Brown blushed and smiled, while a happy light played in her soft gray eyes.

"I think we farmers pay too little attention to the social claims of our neighborhood," observed Mr. Graham. "We get too much in the habit of subordinating everything to business; so much so that we often lose by our close application. 'All work and no play makes Jack a dull boy' is as applicable to we old folks as to the younger ones."

"Why don't you organize a grange?" inquired young Mr. Hamilton, who was visiting the Burnhams.

A silence fell over the group, and that stiffness which is so deadening settled upon all. Fortunately young Hamilton was a man of tact and experience, and instantly perceived that the coldness with which his suggestion was received was due not so much to any objection to the idea itself, but to the thought that these easy, cordial gatherings would become formal affairs.

"The reason that I suggested the grange," continued he, easily, apparently not noticing the silence, "was that you are already one in a local way. You are doing exactly what the grange seeks to do. Your work is along the line of its work. But there is this distinct advantage, that while maintaining your own individuality as a local club you could also, by the same organization, and with precisely the same work, come in close fellowship with thousands upon thousands who are doing exactly what you are doing. You would form a link in that great chain that is binding farmers together in a compact organization, and getting them in shape to co-operate with the clubs maintained by other business men. You would give and receive in a way that you cannot if you are simply an isolated local club."

There were a few moments of awkward silence, broken by Mrs. Graham. "I for one like the idea," said she. "I have been reading of the splendid work the grange is doing, and have often wished we had one, but I didn't know how to go to work to get one."

"And I, too, like the idea," said Mr. Burnham. "We need a local organization, and are going to have it. I don't see why we couldn't go a step further and become a part of a great national organization."

"Agreed!" cried several others. And so it was decided to call in an organizer who would give them the necessary instructions. Young Hamilton wired the state master of the need of a grange, and asked that a deputy be sent. A day later came a commission, with necessary blanks, to young Hamilton, instructing him to complete the work he had begun. A week later No. 1005 was organized, and a happier or more prosperous grange cannot be found to-day.

I am sure that there are hosts of other communities in which if an organizer should go no grange would be organized at the outset. He might plant the seed, leaving to time the development of the giant oak. There are many people desiring a grange who feel that a good one could not be organized in their community. The fact is that that neighborhood which cannot maintain a grange is the exception rather than the rule. In many instances those who want a grange could the quicker gratify their longing by getting a few kindred spirits together for mutual help and enjoyment, and later on organize a grange and become a potent factor in the great work that is being done by the American farmer.

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AN ORIGINAL LABOR-DAY CELEBRATION

By Adele K. Johnson

In a happy, enthusiastic letter which Florence Morgan, a Smith-college girl, wrote to her cousin Nell Elliott last summer she graphically described a yacht-race, a house-party and the preparations for the Labor-day celebration in Blank, which included the athletic games, the vast parade with thousands of working-men in line, the decorations, the speeches and the music.

Florence was going home the next morning. One of her first duties was to train a class of newsboys from "The Boys' Evening Home" to sing patriotic songs. They were to march, too, and were jubilant at the prospect. "They'll make good citizens some day."

Why could not the village of Walden have a celebration? Nell pluckily made an attempt to become a "general promoter," but the quaint little hamlet nestled "near to Nature's heart" did not respond cordially. Fortunately Nell remembered a remark Florence once made explanatory of her work among the newsboys—comparatively little could be done for the very ignorant foreign adults—"Commence with the children and work for the future."

Eight girls and boys from thirteen to fifteen years of age were invited to a Labor-day entertainment at Nell's home. The entertainment was to be held in the afternoon, from three to nine. Grape-vines, with bunches of the fruit, and pumpkins formed the principal decorations, and gorgeous autumn leaves gave a rich glow. Stately asters, gay phlox, brilliant nasturtiums and poppies filled many vases, bowls and jugs. Only one variety of flowers was used in each room. Three bowls of nasturtiums were artistically arranged on a mantel; the flowers, picked with many leaves, held their heads up as bravely as though growing in their own little garden-bed.

Candles were chosen to furnish the illumination on account of their suitability and because they were made from tallow.

Croquet and archery were the games with which the afternoon hours were whiled away.

"The kindly fruits of the earth" were represented at the feast. The fresh, cool melons, pears, peaches, grapes and apples were very attractive. Cold chicken, cold ham, wheat (white), rye and Graham sandwiches, with sweet, golden butter, rich, dainty cheese, pickles and sparkling water were served. The "Labor-day pies," certainly a novel title, were delicious individual pumpkin pies. A rapid analysis would show that the farmer produced the wheat in his field, his pigs furnished the lard, the thrifty vines yieldeth the pumpkin, while the other ingredients were water from the faithful well and milk and eggs from cow and fowl. Peaches and cream and ice-cream completed the menu. Grape-leaves and nasturtium-blossoms decorated the supper-table and gracefully garnished many of the dishes.

After supper games were played in the house. An amusing one was "Questions and Answers." Each question and its answer, usually laughable and inappropriate, were previously written on small slips of paper, which were numbered alike; they were then hidden in flowers—two colors of nasturtiums, one color to contain the questions, the other the answers. These were prettily arranged on a tray—the girls having straw-colored nasturtiums, while the boys had those of orange hue. One of the questions asked was, "What would you do if your father lost his money?" "Put on fresh linen and brace up," was the unexpected answer.

The "Geographical Alphabet" was interesting. All the letters of the alphabet were distributed among the guests, and each one was required to write a short sentence describing the situation, history or a characteristic of a country whose name began with one of the letters given him: for example, "E is for Egypt, famed land of the sphinx."

The "Poetical Conundrums" proved exciting. "What famous English novelist recently deceased was a negro?" "Black." "Who was the gentlest poet?" "Lamb."

Sturdy little Jack Elliott, his sister's champion, recited the poem "The Stay-at-Home," his selection at the last school entertainment. He also recited another which he had learned, called "The Hard-Work Plan."

"Up and toil along the road,
And travel with the van,
And earn your way to greatness
By the hard-work plan."

The souvenirs were original, being booklets with cream water-color paper leaves and covers of celluloid tied with tiny crocheted green silk cord tassel-tipped. "Labor-day" and the date "September 5, 1899," were skilfully painted on the covers in green. Each booklet contained a quotation concerning labor from a poet or philosopher, such as:

"No faithful workman finds his task a pastime."

"Bodily labor alleviates the pains of the mind; and hence arises the happiness of the poor."

"Labor is wholesome to the body and good for the mind; it prevents the fruit of idleness."

"Go labor on; spend and be spent—
Thy joy to do the Father's will;
It is the way the Master went;
Should not his servant tread it still?"

"Not what I have, but what I do, is my kingdom."

"Experience shows that success is due less to ability than to zeal; the winner is he who gives himself to his work, body and soul."

"Blessed is he who has found his work; let him ask no other blessedness. He has a work, a life-purpose; he has found it, and will follow it."

"Work is the fresh air of the soul."

TOMATOES AS VEGETABLES—TOMATOES AS FRUIT

It is a fact, though you may not all be aware of it, that tomatoes are classed both under the list of vegetables and also of fruits. Webster says, "Tomatoes if cooked are vegetables; if eaten raw are fruits." And, in my opinion, tomatoes as fruit rank equally with strawberries and peaches. They must be very ripe, though not overripe, and should be peeled with a sharp knife without being immersed in hot water. (The hot water destroys the freshness.) After peeling they should be carefully sliced, laid in a dish and covered with sugar. When served they are covered with whipped cream, and no one who partakes will deny that it is a dish "fit for the gods."

A delicious salad is prepared by using tomatoes with any preferred salad dressing, or simple vinegar, salt, pepper and sugar. If good cider vinegar cannot be obtained lemon-juice should be substituted. The tomatoes must be sliced and placed on ice for an hour before serving.

Scalloped Tomatoes.—Take one pint of stewed tomatoes which have been rubbed through the colander, thicken with one and one fourth cupfuls of lightly picked crumbs of whole-wheat bread, or a sufficient quantity to make it quite thick, add salt and pepper and one half cupful of sweet cream; mix well, and bake for twenty minutes. Or fill a pudding-dish with alternate layers of tomatoes and bread or cracker crumbs, letting the topmost layer be tomatoes; cover, and bake in a moderate oven for an hour; uncover, and brown for fifteen minutes.

Roasted Tomatoes.—Plunge in boiling water for a minute sound medium-sized tomatoes; drain, and pare them neatly, then cut away the tops without detaching them entirely, and remove the seeds with a teaspoon. Put a teaspoonful of good butter into each tomato, seasoning with a little salt and pepper; close the tops, then lay the tomatoes in a buttered baking-dish, moistening each one with a little sweet-oil. Put them in a hot oven, and bake ten minutes. Place on a hot dish, and serve.

Scrambled Tomatoes.—Remove the skins, and place in a saucepan six large tomatoes; add a little butter, pepper and salt, and cook until they are done; beat two eggs, and just before taking the tomatoes up turn the eggs in and stir one way for two or three minutes, or until the eggs are cooked. Serve immediately.

Cabbage and Tomatoes.—Boil finely chopped cabbage in as little water as possible. When tender add half the quantity of hot stewed tomatoes, and boil together for a few minutes, being careful to avoid burning. Add sweet cream just before serving.

Tomato Relish.—Remove the skins, and cut in thick slices six good-sized tomatoes; dip them in beaten egg, then in bread or cracker crumbs, fry in hot butter, season to taste, and serve with beefsteak.

Tomatoes and Corn.—Cut the corn off the cob, and boil until tender; add to the corn twice the amount of stewed tomatoes, butter, salt, pepper and cream or milk in which a little flour has been smoothed.

Tomatoes and Onions.—Stew with the tomatoes finely chopped onions; the combined flavor is delicious.

Baked tomatoes are allowed to retain their skins until after they are done (it takes an hour to bake thoroughly), then the skins are removed and they are dredged with salt, pepper and butter. These are very healthful, as they are freed from much of the acid juice.

Ella Bartlett Simmons.

A DOUBLE BONBON-BAG

One of the daintiest ideas for "favors" at a recent children's party was a double bonbon-bag made of pale pink China silk dotted with spots of rose-color and tied around between the two pockets with rose-colored ribbon. To make one, take a piece of silk ten by fifteen inches, fold it lengthwise, stitch the ends and sides, leaving open about one third of the length at the middle of the side seam, turn in the edges of the opening for narrow, lightly run hems, and turn the bag. Slip inside, seam to seam, a similar bag made of tough white paper, and fill each pocket to the opening with mixed bonbons. Tie the ribbon, knotting it an inch or more from the bag, so as to leave a loop by which to hang or handle it. Such bags are bright and attractive "favors" for a party, and they make very appropriate holiday or birthday gifts to offer friends of any age. If desired they can be made more elaborate by the addition of lace embroidery.

P. W. H.

SCHOOL-DRESSES FOR GIRLS

Most of the summer dresses can be worn through a part of September, but the wise mother will not let this month grow old without preparing at least one suit for the rainy and chilly days that creep in between.

Now that the rainy-day skirt has evolved into the promenade skirt and bids fair to be a settled article of dress it is wise to consider one fact; namely, that money will be saved by making this of the very best wearing material. As so many women clamor for cheap stuffs, manufacturers of course, to meet the demand, put cheap stuffs on the market; but there is no economy in buying them. Brown and gray are the best wearing colors, and it will pay you to select the goods that range in price from three to three and one half dollars a yard.

Good tailor woolens will wear better than those offered at the retail stores. Allow three skirt-lengths for a skirt and jacket. If of the very heavy double-faced goods a lining will not be necessary. This suit, with a bright blouse of soft Henrietta, with a neat collar and belt, would last your young daughter until Christmas. It is poor management to have many dresses for growing girls. Three are all that are sufficient—one for best wear, one for evening wear and one for school wear.

In replenishing a young girl's wardrobe replace the good dress and let the past one come down as a school-dress. If you have several girls, clothe two of them alike, so that afterward the two dresses will make one good one for a smaller girl.

Patronize the dyer. Good material will clean twice and then dye a darker color and wear much longer than poor stuff, which soon gets shabby, and is then done for.

The different style of blouses suggests ways of varying the wardrobe of several girls. For the tiny one have a long cashmere cloak like that shown in the illustration, to cover outgrown dresses.

Black ribbon velvet still remains a fashionable trimming, with belt and necktie of the same material. A rough straw or felt hat slightly trimmed is best for all-time wear.

B. K.

TURN ABOUT

The horse and the dog had tamed a man and
fastened him to a fence;
Said the horse to the dog, "For the life of
me I don't see a bit of sense
In letting him have the thumbs that grow at
the sides of his hands, do you?"
And the dog looked solemn and shook his
head, and said, "I'm a goat if I do."

The poor man groaned and tried to get loose,
and sadly he begged them: "Stay!
You will rob me of things for which I have
use by cutting my thumbs away!
You will spoil my looks, you will cause me
pain! Ah, why would you treat me so?
As I am God made me, and he knows best!
Oh, masters, pray let me go!"

The dog laughed out and the horse replied,
"Oh, the cutting won't hurt! You see,
We'll have a hot iron to clap right on, as you
did in your docking of me!
God gave you your thumbs and all, but still
the Creator, you know, may fail
To do the artistic thing, as he did in furnishing
me with a tail!"

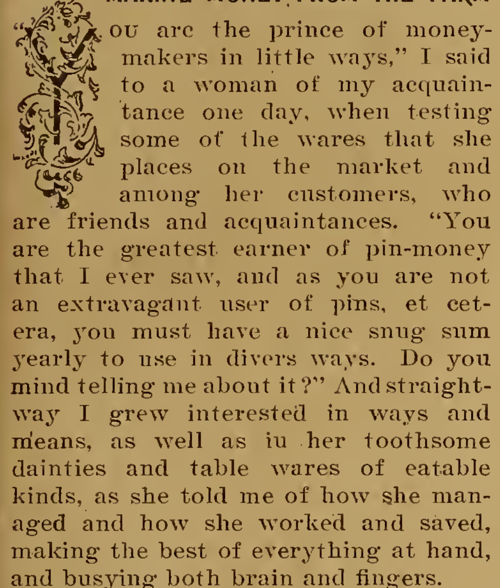
So they bound the man and cut off his thumbs,
and were deaf to his pitiful cries,
And they seared the stumps and they viewed
their work through happy and dazzled
eyes.
"How trim he appears," the horse exclaimed,
"since his awkward thumbs are gone!
For the life of me I cannot see why the
Lord ever put them on!"

"Still it seems to me," the dog replied, "that
there's something else to do;
His ears look rather too long to me, and how
do they look to you?"
The man cried out, "Oh, spare my ears! God
fashioned them as you see,
And if you apply your knife to them you'll
surely disfigure me!"

"But you didn't disfigure me, you know," the
dog decisively said,
"When you bound me fast and trimmed my
ears down close to the top of my head!"
So they let him moan and they let him groan
while they cropped his ears away,
And they praised his looks when they let him
up, and proud indeed were they!

But that was years and years ago, in an unenlightened
age!
Such things are ended now, you know; we
have reached a higher stage!
The ears and thumbs God gave to man are
his to keep and wear,
And the cruel horse and dog look on and
never appear to care.

MAKING MONEY FROM THE FARM



ou are the prince of money-makers in little ways," I said to a woman of my acquaintance one day, when testing some of the wares that she places on the market and among her customers, who are friends and acquaintances. "You are the greatest earner of pin-money that I ever saw, and as you are not an extravagant user of pins, et cetera, you must have a nice snug sum yearly to use in divers ways. Do you mind telling me about it?" And straightway I grew interested in ways and means, as well as in her toothsome dainties and table wares of eatable kinds, as she told me of how she managed and how she worked and saved, making the best of everything at hand, and busying both brain and fingers.

An article that my friend terms "a relish" is worthy of especial mention and description, and the concocting of the article begins with the early summer, for the making of it begins with the growing of materials entering into the composition. My friend of money-making schemes is a farmer's wife. She loves garden-work, and does a great deal of it, but not the laborious work that many women do, for she long ago learned that men with horses and plows and cultivators could, in short spaces of time, do more than she could in weeks, or days at least, and with no fatigue whatever, as compared with her own weariness when attempting to do work not fit for women. Long rows of garden stuff are grown, and among these garden rows are onions, tomatoes, beans, etc., in abundance. Celery culture has come to be a part of her gardening, also, for celery plays a prominent part in the making of her relish, for which she finds ready sale, and at well-paying prices. Once a small dish of it is sold, or even sampled, more of it is straightway in demand. She finds sale for all she is able to produce.

As the cucumbers are grown to the right size for pickling they are daily attended to, picked and salted down. She is very successful in her method of salting down, and has frequently many hundreds to dispose of in the winter, which, when soaked out and pickled, sell at ten cents a dozen. A great many of them are also used in the relish-making. When green beans are at the tender string-bean age gallons of them are cooked in salted water until tender, and then pickled in large stone jars. When the season of ripe tomatoes is about over bushels of the green ones are gathered, both large and small, and then begins the work of putting the materials together. There shall be no secrets about her receipts, she says, and through the writer's hands she passes this one on to others. Perhaps other farmers' wives may profit thereby.

The rule is as follows: To six quarts of sliced green tomatoes add a liberal quantity of salt, and let them lie over night. In the morning drain them well, and soak in a quantity of cold water for six hours. Use water sufficient to take out all the salt. This removes the rank green juices of the green tomatoes. Again drain, and then put on in vinegar to cook until slightly tender. A pint of such matter will do for the six quarts of tomatoes. Again drain from the vinegar, and throw this vinegar away. The rule for this cooking is one pint of vinegar to one gallon of the tomatoes. To the six quarts of tomatoes four quarts of onions will be required. Proceed very much the same as with the sliced tomatoes, except that not nearly so much salt will be required for them to stand in over night, and but little soaking will be necessary the following day. Put the onions on to boil in water, and cook until tender, but not until soft. Drain well before using. Take the beans from their vinegar bath, chop onions, beans and tomatoes well, and add to the mixture four quarts of chopped cucumber pickles. If the cucumbers have been taken from a salt brine soak them until freshened suitably for pickling. If pickled when picked and first put down simply drain them from the vinegar, and chop. To these articles in combined quantity add a bunch or two of chopped celery. Individual taste should be consulted as to celery addition. If celery is not to be had, use celery-seed or celery-salt, to give flavor. To the chopped beans, tomatoes, onions and cucumbers (and celery if at hand) add four quarts of fresh, strong cider vinegar, four cupfuls of sugar, a red pepper and a green pepper chopped fine, and one small tablespoonful of mustard. Cook together until all seem thoroughly done, but not in the least cooked to a mushy consistency. Make a smooth paste of one cupful of flour and water, and stir into the boiling mass, to thicken it slightly. Simply let come to a boil after adding the flour and water, and add turmeric to suit the taste and to give a rich yellow color. Add a teaspoonful of white and black mustard-seeds—either or both. Put into tumblers, pint jars, quart jars and other small dishes suitable for table use. Seal if the weather is still hot, but the mixture will keep almost anywhere and under almost any conditions (except that of placing it before people of good tastes).

The same farmer's wife is never able to furnish butter sufficient to meet the demands. She never sells for less than twenty cents a pound, and when butter prices range higher, in winter, the "rise of the market" is hers, by tacit understanding. Were her strength greater, and did her cows number more, there would yet be a demand to exceed the supply, for her butter is beautiful in appearance and perfection in flavor.

It would be almost needless to add that her fine fowls furnish, through exchange, the entire supply of groceries for the table. Apples are converted into jelly and boiled-cider apple-sauce, and find sale, also, at prices that pay her for the labor, she says. Boiled-cider apple-sauce among village and city people is a rarity and a treat, and whenever the home-made commodity can be found is in ready demand. "Mother's" old-fashioned receipt is used in the making. Factory-made sauces cannot compare with the home-made.

What a little store of treasure there really is about the farm if simply taken into account and the materials utilized. Many do make the best of all these things. Others do not even try, but bewail their "fate," when in reality there is no fate about it. It's a simple matter of "up and doing"—energy, determination, kindly disposed spirit and willingness to do. LYNN LANGLOIS.

LIVE OUT OF DOORS

If we could all hie away to some cool, breezy spot and live in tents when hot weather comes life would be more endurable; but as we cannot, let us make ourselves just as comfortable as possible under existing circumstances, simplify our housekeeping in every way possible, and live out of doors all it is possible to do. There is no doubt that outdoor life is the most natural and healthful, and yet I believe farmers' wives, who, it would seem, might have an abundance of fresh air and outdoor life, suffer more for the lack of it than almost any other class of people. In many neighborhoods it is almost impossible to get help to do the necessary housework, and consequently the cooking, churning, washing and ironing take all the housewife's time, and in too many cases nearly all this work is done in the house. This is a mistake. Every house ought to have a roomy, shady piazza, where very much of the work could be done in the open air; but unfortunately, as I know, many houses do not have this convenience. However, if a woman will firmly resolve that she will do nothing in the house that can be done out of doors she will find some place to do it. A table can be put under a tree, or, lacking that, on the side of the house that is shady in the forenoon. This table may be only a rough shelf fastened to the side of the house, or a box turned on its side; then have a chair high enough to sit at this table, to do many kinds of work that can be done sitting as well as standing. A simple porch may be made to serve until a better one can be built, by putting up a light frame over the kitchen door and stretching a few yards of heavy duck or awning-cloth over it. All the preparation of vegetables, the churning and working of butter, the washing and even the ironing, when the wind does not blow hard enough to cool the irons, may be done out of doors. Have a little oil-stove on which to heat the irons, set it by the ironing-table, inside a box turned on the side if necessary to shield it from the wind; then you can sit in the high chair and iron all the small pieces without getting up.

Besides the comfort of doing many of these household tasks out of doors, much dirt and litter is kept out of the kitchen, and work saved there. I believe if a woman will try this plan once she will never go back to the old one.

When the morning work is all done, and the mending-basket claims the attention, take it out of doors in some shady place. Let baby take his nap in a hammock swung by your side. A piece of netting spread over the hammock will keep the flies from disturbing him, and, believe me, you will be all the better for this out-of-door life, and you will come through the hot summer without that utter exhaustion which you have so often felt when you did all your work in a hot, stifling kitchen.

MAIDA McL.

IN THIS WORKADAY WORLD

Carlyle was right when he said, "Soul is kindled only by soul." When Jesus wanted to save the world he did not send some one else, nor sit quietly in heaven, wishing the world were redeemed; but he himself came down to earth and became a man among men, that he might come in personal touch with them, and save them. Even now he is not afar off, but a near and dear friend to all who love him.

And just in proportion as we as Christians come in personal touch with those around us are we useful in carrying forward this great work, which he began. Look around and see if there is not some life known to you that needs help and sympathy. Take an interest in that one, cause him to feel that you are his friend, and then you can influence him for good.

"Never morning wore to evening
But some heart did break."

Are we so engrossed in our own pleasures or labors that we are not looking for opportunities to do something for these saddened hearts?

Is there some woman known to you who is weary and disheartened and vainly endeavoring to carry her burdens alone? Cultivate her acquaintance; take a loving interest in all that pertains to her, and in a loving, Christ-like manner do all in your power for her, leading her gently to the one great burden-bearer. God desires us to have our characters so rounded, our vision so enlarged that we may be able to see the little things he would have us do. "Out of the little cometh the large." If each day is what it should be life cannot be barren and void.

One day at a time; one day of joy and peace; one day of sadness and heartache; one day of rest and idleness; one day of labor and weariness, and our lives are ended.

"I pass through this world but once; if, therefore, there is any goodness that I can do, or any kindness that I may show, let me do it now, for I shall not pass this way again." The days glide into weeks and months; the years are born, and merge into the eternities. Silently pass the days one by one, as a panorama, before us, and we are the artists painting the pictures, which shall stand as long as time shall last; and who shall say that they may not be carried into eternity? We may have either one of two teachers, Christ or Belial.

Our opportunities are our paints; let us take heed how we use them. We start each day with fresh colors, clean brushes and a clear palette, and whether willingly or unwillingly, we paint until the day dies. Will we be proud of the result at the last day? Will the Great Teacher be pleased with our picture, and say to us, "Well done?" If he does, then all the trials and hardships which we have endured in this "workaday" world will vanish in the smile of his love, and we shall ever praise him for having lived and for having had the privilege of doing some little good. Then let us keep in touch with Christ, and in touch with humanity. ELLA BARTLETT SIMMONS.

BEAUTIFY YOUR FARMS

There are so many ways of enhancing the beauty of the farm, and with so little trouble and expense, that it is to be wondered at that the majority of farmers do not take advantage of them. Many unsightly pools near the roadside might be made lovely by sowing grass to the edge of the pond and having flags, cattails and water-lilies growing in and around the water. It takes no more nourishment from the land to grow a good grape-vine on the fence than it does the weeds we so often see. Apple, cherry and plum trees standing outside of the fence cost no more after planting than does the box-elder or willow, requiring only an occasional pruning. Wire fences, which are so popular now, make a very suitable support for the grape-vine and such other vines as the columbine, the bittersweet, climbing roses or clematis. The woodbine or Virginia creeper would be especially good as a beautifier, being a vivid green all summer and a flaming red all through the autumn.

Walnut, butternut and hickory trees interspersed with vines, lilac, snowball and syringa bushes and an occasional fruit-tree would not only enhance the beauty of the farm, but also the value of it. This ornamental and useful growth by the wayside would be an agreeable change from white clover and many obnoxious weeds. Then, to have such lovely things to give away (for one would expect the passer-by to partake of them) would in itself fill the generous soul with delight. There might be many who would abuse these privileges at first, but if fruit and flower culture by the roadside can be practised in Germany, and none molests or abuses this privilege, it appears to me that in our own beautiful nation, with all its lovely school system, we should be able to teach the rising generations to respect so noble and generous a feeling that would prompt a farmer to not only beautify his farm for others, but to give to the weary traveler a royal hospitality. MINTA RULOW ROADHOUSE.

[HOUSEHOLD CONCLUDED ON PAGE 17]

THE SECOND JACKSON

By Albert Lawrence

"I AL'AYS said Toby would be president some day," declared the aged, white-haired mother when the news was brought that her son had been nominated for that office by the dominant party of his village. "It'll please me mightily to move into the White House, though I be past eighty, an' ought not to be thinkin' of fine things; but I pray God that I may live an' have the strength!"

Neighbors before this had shaken their heads and said that the old lady's mind was failing her. But honest Tobiah Jackson could not have it that way in his filial heart, but would rather make a joke of the matter.

"'Cause ma's near-sighted things looks the same to her, an' it makes no difference whether it's the president of the United States and the Philippine Islands or just president of Saugatauk Village."

"You see," the old lady confided to Mrs. Beagle, "I've be'n thinkin' more 'n' more of late that it must be so. There's be'n two Adamses, an' two Harrisons, an' there's bound to be two Jacksons. Hist'ry's al'ays repeatin' of itself if you give it time; that's be'n a true proverb long before my day."

John Phillips, the village blacksmith, was Jackson's opponent in the canvass, which was an exciting one. At the very beginning the issues became badly jumbled. Questions of national policy mixed themselves up with what should have been purely local matter, and then personalities crept in, to make of the whole a biting, bitter mess.

Phillips styled himself the working-man's candidate, and accused Jackson of being a capitalist. In point of fact, one was about as well off as the other, and Jackson had probably worked just as hard upon his farm as Phillips did in his shop. The village limits had only recently been extended, bringing Jackson's house, which was on the near corner of his farm, within the corporation; and this was made a point of by the opposition. Phillips' followers declared Jackson would have a plank walk built clear to his door, and tax the citizens of the place for it. Jackson was called an imperialist and expansionist, and it was declared that the same policy which made him eligible for office in the community would give them a Malay for mayor when Saugatauk became a city. Jackson's men said that Phillips favored making dollars out of iron, or any old thing, and they advised him to build a Chinese wall around his shop and call it a United States mint.

Phillips was a married man, with a family of children, and it was claimed that he would naturally have the interests of the village more to heart than Jackson, who was single, and lived with his "crazy" mother and "cranky" sister. Jackson was said to be under this spinster's thumb, and not only would the ban be placed upon the saloons, as heretofore, but there would be a license put upon their very tea and coffee, both of which Matilda Jackson was known to eschew.

When the votes were counted by the inspectors, sitting in the dim light and cold of the village fire department, it was found that Tobiah Jackson had received a goodly majority. Phillips flung himself angrily out of the room, declaring that the people of his town would elect the devil if he should be placed at the head of the other ticket.

But in the morning the blacksmith was early at his shop, pounding iron as merrily as ever, and when Tobiah Jackson passed on his way to the corner grocery Phillips hailed him as president of their village, and called him across the street to shake his hand.

Jackson was a large, well-formed man nearing the half-century mark, but every whit as strong and active as he had been a score of years earlier. In his face he strongly resembled the generally accepted portrait of Grant, and in a modest way was proud of the fact. Had the war of the Rebellion lasted a year or two longer he would have been found at the front serving under his idol. As it was, however, he fought the battles out under the lamp by the kitchen fire, first with the county newspaper as the field of action, and later between the covers of some standard work spread upon the table after the supper dishes had been cleared away.

Tobiah Jackson had a modest library, consisting of history and biography, a set of encyclopedias, with three or four volumes of standard fiction, and a row of school-books of two generations past. It was probably due to some remark of his mother's that led him, soon after his election, to begin reading for the third time the life of Andrew Jackson. Tobiah rightly felt that such study would help him discharge the duties which he had assumed in accepting the office his neighbors had honored him with.

It was not until the following September that anything happened to mark his administration above that of a dozen which had preceded him. He had gone to do a bit of work in the village cemetery, which lay beyond his farm, where the wife of his youth and his only child lay buried in a single grave. It was early in the morning. Hardly had he begun his task when there came a shout from the road, and some one beckoned to him to come nearer.

"I guess ye hain't heard what happened in tauwn las' night," said Beagle, as he flung his legs over the side of his buggy. Beagle was the village constable. A bit of excitement appeared in his manner and action, and Jackson knew there was something serious which demanded his official notice. "Widow Phillips was murdered in her home! There's a big excitement! Ever'body's talkin' of lynchin' the murderer!"

"Murdered? Widow Phillips? A murder in Saugatauk!" repeated the amazed listener. Then the mind of the official came to him. "Where did you get 'im—the murderer?" demanded Jackson, sternly. "You're responsible for your prisoner! It's our duty to see that he has a fair trial!"

"I hain't got 'im, nor nobody else. They don't know who it was as did it. Some say it was Jimmie McPhee. Jimmie was there yesterday workin' for the widow. It was done with his fish-spear; at least there's them as say it's his'n. The fish-spear is there. It was found in the back yard. It's covered with blood! The points jest fit the markin's on the widow's body! The sight's a terror! Her body! Lord! An' at her age!"

"Has any one seen Jimmie?"

"No. He's keepin' dark. Phillips is talkin' the most of lynchin', but there's plenty as is willin' to join him in 'vengin' his mother's death. My horse there ought to be shod, but there'll be no work at the blacksmith's this day!"

"Phillips talkin' o' lynchin'!" exclaimed Jackson, impatiently. "Why, it ain't six months since he run for an office that would put him at the head o' law in Saugatauk. But it's the man's mother. If it had be'n my mother—"

"It's a terror!" repeated the constable, with an awful shake of the head. "Her body was fearfully mangled. Why, there was blood—"

"We've got to find Jimmie," interrupted Jackson, "and put him where he'll be safe, an' guard him. There'll have to be an inquest—"

"I'm goin' for the coroner now," said Beagle, as he threw his legs back into the cart. "I thought I'd stop an' tell ye, as ye ought to know 'bout it."

Jackson felt that his presence was demanded in the village among the living, and struck out across the fields for his home, there to array himself in suitable clothes, which meant his Sunday black, as best calculated to command the respect due to his position. As he passed through a strip of Fenton's woods, between the river and the railroad, he came suddenly upon Jimmie McPhee; the simple-minded fellow was on his hands and knees poking among the leaves under a fallen tree. Jackson pounced upon him at once.

"You can't hide under there, Jimmie," said the chief officer of the village. "I've got you now, and you've got to come with me."

Jimmie turned his head and looked into the face of the man who held him in so close an embrace. He was not greatly frightened, for he was used to being put upon by men and boys who liked to make sport of him.

"Aw, it's you, Mr. Jackson!" drawled the half-wit, and he broke into a grunting, nasal laugh. "I thought it was some o' the boys. Hu-ugh-ugh, ugh, ugh! Did ye think I wanted to crawl under there? I was lookin' for my fish-spear."

"Never mind your fish-spear, Jimmie; I want you to come up to the house with me."

Jackson let go his hold on the other. Jimmie's face had a perfectly natural look, and reflected no desire to escape. His drawl became a wail, as he continued:

"I hid my spear under there, but 'tain't there now; some dum' boys have taken an' stolen it. I never can find anything where I put it. I bet I know who it was, an' it won't be healthy for him if I ketch him once!" His voice was pitched on a high key and lost itself in a squeak. Jimmie calmed himself after this explosion, but continued presently, in sort of a whine, "If you've got some work for me to do, Mr. Jackson, I'll go up to the house with you."

Jackson was considerably puzzled by his prisoner's behavior; but his eye detecting blood-spots on the colored shirt which Jimmie wore, he felt it his duty to take him into custody. He made the child-man precede him across the fields toward the house. Jimmie talked in his usual constant stream, breaking at times into loud guffaws at his own fancied witticisms.

"That topknot hen ye give me won't lay any more eggs, Mr. Jackson," drawled Jimmie, in his high, nasal monotone. "Hu-ugh-ugh-ugh!" he laughed. "I killed her this mornin' before daylight." He finished his sentence with a rising inflection. "I had to git out before sun up to ketch her. Hu-ugh-ugh-ugh! She bled like a stuck pig. Ma, she said they'd think I'd committed a murder—hu-ugh-ugh-ugh!"

Jackson was thinking what he should do with his prisoner. He was far from convinced that Jimmie was guilty. But innocent or guilty, it might not be safe for him to appear in the village if there was earnest talk of lynching some one. The half-wit's story of the hen might be true, and it might not. Jackson determined to stop at the McPhee's when in the village and inquire.

After thinking over many schemes, one presented itself to the village president for subjecting his prisoner to a secret incarceration. They were drawing near his barns.

"You're a good un at pickin' over beans, ain't ye, Jimmie?" Jackson asked.

"I guess I be," returned Jimmie, in a loud, complacent drawl. "I picked over forty bushel for Huckins down here on the turnpike road last year. He said 'at I—"

"I've got a few that I want picked over," interrupted Jackson; "but, ye see, I don't want any one to know about it. Do ye s'pose ye kin keep quiet an' not let any one know ye are at work for me?"

"I guess I can," Jimmie answered, dragging his words out noisily. "Huckins, he said 'at I—"

"Not so loud, Jimmie! Sh-sh! We're gettin' near the house. I don't want the women-folks to know about this. Here—in the shed! It'll be rather dark at first, but I guess you can see after you get a little used to it. I'll have to lock you in, Jimmie, so's no one will stumble on you while ye're workin'. Now mind, mum is the word. You can put the clean beans in this barrel. See, it's gettin' lighter a'ready. I'll come by 'n' by an' see how ye're gettin' along."

Jackson shoved to the shed door and a moment after the key clicked in the padlock.

Arrayed in his best clothes, which were donned over his woolen shirt, Jackson strode into the village. Everywhere little knots of men broke at his coming, only to form again about him. Women ran from house to house, throwing their aprons over their heads, or stood in their yards talking across the fence. The horrible crime was the all-absorbing topic.

Jackson made his way to the back door of the McPhee home. Jimmie's mother, old and grizzle-headed, was wringing her hands and wiping the tears from her eyes with the dish-towel.

"Ou-wy! he never did it, Mr. Jackson!" she cried, coming at him with almost a fighting frenzy. "Jimmie never did it, Mr. Jackson! He may not be so bright as some, but he is hairmless, Mr. Jackson! He is hairmless! Ye air president the while, Mr. Jackson, an' can save him! Ou-wy! he never did it! Me boy—me baby boy! Jimmie, the lad! An' they may have him this moment! Ou-wy!"

"Be still, Mrs. McPhee, and answer me truly. Did Jimmie kill a chicken this mornin'?"

"Faith, an' he did that, trooly. I was dressin' it when they come to me wid the story that upset me intoirely. Here it is, that ye may see wid yer own eyes. An' the blood was that thick on the lad that I said—I said it, Mr. Jackson, never thinkin', Mr. Jackson—I said, says I, 'They'll think, lad, that ye've committed a murther,' I says, never thinkin', says I. Ou-wy! an' ye will save him, Mr. Jackson?"

"I'll do the best I can, Mrs. McPhee. I'll stand by your son, an' see that he has every right of a free man. Now calm yourself!"

"Thank ye, Mr. Jackson, thank ye! There'll be one that'll ever pray for ye, Mr. Jackson, the while there's breath in me body!"

There was less talk of lynching than Jackson had expected to find from the few words which he had had with the constable. Phillips came at him excitedly, shaking his fist and demanding that something be done to catch the murderer. It was he who had identified the fish-spear as belonging to Jimmie McPhee; for Jimmie had had it at the shop but a short time before, and the blacksmith had fastened the head upon the new handle which it bore. A score of men were searching for the suspected fellow, and the longer they failed to find him the more it convinced all of his guilt.

Jackson visited the scene of the crime, and by virtue of his office took the blood-stained fish-spear in charge. He had determined to carry this home and confront Jimmie with it, and mark how the half-wit behaved himself. If he acknowledged that the spear was his, then Jackson intended to transfer the prisoner to the county jail. He believed that this could be done safely if he conducted Jimmie by a roundabout way at the noon hour, when most of the village people were at their dinner. It never occurred to the man that his townsmen could have a reason for concealing their intentions from him; he believed what he had overheard accurately reflected their minds.

"Do you know whose this is?" Jackson asked, when he stood before his prisoner, fish-spear in hand.

"I guess I do. Hu-ugh-ugh-ugh! That's mine. Where'd ye get it, Mr. Jackson? What's that?"—examining the blood-spots. "Somebody's be'n usin' it," he drawled. Jimmie smelled of the stains. "That ain't fish-blood." And he carried it again to his nose.

Jackson saw no signs of guilt in these actions; nevertheless he believed it his duty to place the fellow under temporary arrest at least.

"How are you gettin' on, Jimmie?" he asked, with a look toward the beans.

"Purty well, Mr. Jackson. It's dark, an' I can't do it very fast. I done all o' that," pointing to the barrel.

"That's not bad. Well, ye can keep right at it, Jimmie. I'll bring your dinner out here. They ain't no one found you here, have they?"

"Nary one, Mr. Jackson. Aw, I kin keep dark when—when I want to. Hu-ugh-ugh-ugh!"

Jackson had an early dinner, and when Jimmie had finished his the time had come to set out for the jail, which was located in the rear of the fire department.

"Jimmie," said Jackson, "I want to get to the engine-house without any one seeing me. How am I going to do it?"

"That's easy," grunted Jimmie, coming to the door. "Go right out here, down through the corn, an' then along Mosbier's fence till ye get to the lumber-yard; then ye cut through there an' along the river-bank till ye come to the tannery; then up Bleeker's wood-lot till ye come to the back door of the jail—an' there ye are!"

Apparently this was more than Jackson could remember. "Jimmie, you lead the way," he said.

"Hu-ugh-ugh-ugh! Come on," said Jimmie.

Twenty minutes later Bud Phillips ran out the front door of the fire department, and lifting up his youthful voice in the street, cried:

"He's caught! They've got 'im! Jimmie's caught! The murderer—Jimmie, the murderer—he's caught; he's in jail! I seed 'im behind the bars! Granny's blood is on 'im! Oh, he's just like mad!"

"There'll be a mob here in ten minutes!" exclaimed Beagle, with a look that foreboded trouble.

"Have ye notified the sheriff?" asked Jackson, anxiously.

"I telephoned his wife at Centreville. He's aout o' tauwn, she said. He can't get here one mite before midnight."

"Our duty's plain. We've got to protect the prisoner," declared Jackson. "What have we got to defend our position with? Is Bleeker's Winchester here? Yes, there it is."

"There are pistols in the drawer," said Marker, who was the village clerk.

"You wouldn't shoot any one?" questioned Beagle. "If they are determined—"

"We must be determined, too. I tell you the prisoner shall be protected in his right," declared Jackson, in a voice which boded ill to all who opposed him. "Barricade the doors!" he commanded, and looked about him to see what force he could rely upon.

There were the clerk, and Smith, the engineer of the fire department, both of whom could be trusted to stand by their chief. Phister, the village marshal, hearing the boy's shout in the street, came running in, and following him were two trustees. Besides these there were three fellows who were lounging in the place at the time, and who would lend their aid so long as there was a show of success—in all a force of ten.

"Don't let any more in," commanded Jackson, after the two trustees had squeezed through the narrow opening. "I'll go onto the second floor and speak to the men outside from a window."

Not more than a dozen had gathered in the street as yet, and these, to all appearances, were peaceably inclined. They stood below before the great doors which had been closed against them; some were clamoring for admission; some were looking through a keyhole or searching for a crevice to furnish them a view of the interior; two or three were trying to peer in at the barred window.

"See here, men—Forest, Jones, Neely," called Jackson, from the opening above. "For the sake of peace and the good name of Saugatauk I must ask you to keep away from this building. Let every man return to his work."

"Have ye got 'im? Have ye got Jimmie?" they inquired, with little heed to his words.

"Jimmie is locked in the cell, an' I shall hold him for examination an' trial. So far as is in my power I promise you that justice shall be done. Now return to—"

"Do ye think he did it, Jackson? Did he kill the old lady?"

"I don't know, Neely," answered Jackson. "He hasn't acted at all like a guilty man to me. But there are circumstances which are very incriminating. If we all keep cool heads the truth will come out."

"Let us see Jimmie. Give us a peep at him," called the men, with uplifted faces.

"No; it isn't best. I have asked you to go away; if you will not listen to my wishes I must order you away an' enforce it the best I can. Men, you have elected me to be your head; now obey me, an' leave at once."

"Give us one look at Jimmie an' we'll go away. You've let some in; let us in, too!"

"They are village officers, like myself."

A jeer went up from the crowd.

"What office does Mikey Milroady hold? When did you ever elect Sandy Wallace? An' there's that unnaturalized Canuck—"

Jackson had forgotten the three loungers. But he was quick with an explanation.

"They are here to help me in case I need them," he answered.

"We'll help you. Let us in," returned the men below.

Every moment the number in the street increased. Women were gathering on the corner beyond, and a few had ventured as near as the walk opposite. Jackson looked anxiously over the crowd for Phillips; he was afraid of what might happen when the son of the murdered woman should come to take the lead. If he could get the crowd to disperse before then all might be well.

"Once more, men! Will you go to your work?" Jackson demanded.

"What's bitin' ye, Toby," shouted an irreverent fellow. "We ain't doin' no harm here."

"Send yer helpers out after us! Drive us away if ye can!" cried another.

"Come," yelled a third; "arrest us all, bedad, and gi' us a chance to see the fool murderer!"

"Put us in jail wid 'im!"

Shouts and jeers rose from the men. Jackson's face grew dark with anger. A happy thought came to him, and he called back down the stairs loud enough to be heard by all on the outside.

"Fire up the engine, Smith! Drop the suction-pipe into the cistern an' pass the nozzle up to me!"

"Yi!" screamed a lad in the street, throwing up his hands and dancing with delight, "he's goin' to squirt on 'em!"

The shouting and jeering went on with increased volume, and mingled with it was greater pounding and rattling at the double doors below. Some one started the cry of fire, with the idea that Jackson would be forced to send out the department and thus give them an opportunity to rush in. The men grew more and more surly and impertinent, and urged one another on; plainly they lacked but a leader to do something desperate.

"Here comes Phillips!" shouted a man on the outskirts of the mob.

"Phillips! Phillips! 'Rah for Phillips! He'll let us in! Make way for Phillips; we'll follow! Got a rope for Jimmie? Hang the fool! We'll back ye up, Phillips! Break in the doors!" These were the cries that could be distinguished above the general roar of the crazy-going men.

Jackson stood in the window, vainly motioning silence. "Phillips, let me speak to you! Men, be still!" he commanded. "Is this law-abiding Sangatauk? Stand back!"

Jackson smelt burning pine and knew that Smith had started a quick fire in the engine. Marker came to him with the pistols and the Winchester.

"Give 'em a couple of shots over their heads. That'll scare 'em off.

"Bang! Bang!" went the Winchester.

The mob started back and there was silence for a moment. The men stood looking at one another an instant as if questioning who had been hit.

"Don't be scared, boys," cried Forest, running to rejoin the excited throng. He had been to the smithy for a sledge-hammer, and from the distance had had an accurate view of Jackson's movements. "He fired in the air! He dassn't shoot us!"

"No, damn 'im, he dassn't," declared Phillips. "Take that, you old boodler," he called, and flung a great stone directly at Jackson. It struck the raised window where the glass was double, and sent the shattered panes flying all about. "Come on, fellows," Phillips continued, taking the sledge from Forest and dashing toward the barred doors.

At that moment Phister came dragging the hose to the window.

"Let Dan'l Webster have his say," cried the marshal, above the tumult. "He ain't afraid to hit 'em. Spit on 'em now, Dan'l!"

"He'll throw cold water on their ardor," gloated the clerk, and ran to a point where he could communicate with the engineer.

"Dan'l Webster" was belching forth a great volume of steamy smoke, which wound its way out through the vent above; panting and coughing, every glistening and shining cylinder was in a tremble.

"Let 'er go!" shouted Marker.

At the window there was a splutter and sneezing as the air and water were forced from the nozzle. Then the stream flowed full and powerful upon the heads and breasts of the raging mob beneath. Jackson directed the hose, and gave the leaders the water point-blank. There was a flying of hats; humanity rolled and tumbled, coughed and choked, and fled, cursing and screaming. Dust filled the air, and mud was spattered from the quickly made pools and rivulets. Wet and panting the men took themselves to a safe distance.

Jackson breathed a sigh of relief. His prisoner was safe for a time at least. Phillips threw himself on the grass by the roadside and coughed the water from his lungs.

"Let 'em squirt," he breathed hard; "the water won't last forever!" And with an oath, meant as a death-warrant for Jimmie, "We'll have 'im yet, curse 'im!"

But Jackson knew too well the value of husbanding his powers of defense, and ordered the stream stopped till there should be need of it again. An anxious hour passed, in which those within the building watched the men on the opposite side of the street drying themselves in the sun. Words were exchanged from time to time; Jackson exhorted them to behave as became law-abiding citizens, while the mob hurled back abusive language, with threats of what it would do presently.

About four o'clock in the afternoon Phillips seemed to be holding a council with the men whom he gathered about him. Then there was a division of his forces, and one half of the mob marched down the street and turned at the corner.

"They're going to attack us in the rear," said one of the trustees.

"Had better carry the hose to the window over the back door, eh?" asked Marker, laying quick hands upon the nozzle.

"No," returned Jackson, sharply; "put on another line and run it to the back window. They mean to charge us front an' rear together. Be quick, men! Beagle an' Harris stay here with me. Phister, I shall hold you responsible for a failure at that end. Keep out o' sight; let 'em make the charge, an' then wet 'em—drown 'em! One more cold bath may bring them to their right minds!"

When cries were heard at the rear of the building Jackson sprang back from the window as if to carry his end of the hose to the point now threatened. Instantly Phillips led the remaining force in a wild charge for the doors in front. Jackson let them reach a point immediately beneath the shattered window before he passed the word for water; then he thrust the nozzle through the opening and let them have it as at the first, except that he gave rather more to Phillips this time.

Presently shouting from the back room told Jackson that his men had beaten off the attack there. Marker joined him, gloating over the sport which it was for those inside. Even the village president found time for something expressive of grim humor.

When the blacksmith recovered, at a safe distance, and found that his men in the rear had been defeated also, he called his leaders about him for a second council. The result of this he made known in a speech which he delivered from the center of the road, in a voice hoarse with rage and the double wetting. "Hey, there, Jackson!" he called, to command the attention of those inside. "Ye might as well give up, for we're goin' to see this through if we have to starve ye out. You're a man as believes the majority ought to rule. I've got the majority with me this time. Ye'll save trouble if ye give up peaceably now. We don't want to destroy no property. Ye have resisted long enough to uphold your honor; an' all I ask now is for ye to give up Jimmie. There's no disgrace in yieldin' to a superior force."

"Phillips, ye ought to be ashamed of yourself," returned Jackson. "Go home to your dead, where you belong, an' leave the law to take its course. I promise you the guilty shall be punished. And I promise you, too, that so long as I have strength to hold up an arm I shall resist mob violence."

Then followed a war of words.

As darkness drew on stones and other missiles were hurled at the building. From movements it was evident that Phillips was surrounding the fire department, with the intention of establishing a siege. Jackson hurried to the telephone, muffling the bell before ringing up. Phister's daughter was in charge of the central, and he was certain of loyalty there. He left an order for the sheriff to bring a sufficient posse when he came at midnight, and then he called up his own home and asked that an effort be made to smuggle some supper in to them.

Tilly Jackson at once bustled about the house, making ready a lunch for ten men. The spirit of excitement had reached the farm; this, with the continued absence of her son, made the old lady uneasy.

"Toby is havin' trouble with them nullifiers," murmured the mother, clasping and unclasping her hands.

"No, ma; it's the Phillip-pinos," returned the daughter, rejoicing in her wit and the stirring times. "But Toby is enough for 'em."

"Oh, so it is! Of course, of course!" repeated the old lady. "Yes, Toby'll do what is right!"

Jackson had bid his men be on the lookout for some one with their supper. So when a skirted figure was seen stealing through the gloom, along the wood piled high in Bleeker's lot, the hose was not turned on, but Marker was sent to the back door to admit Tilly with a heavily laden basket. While they were refreshing themselves the cry of fire arose once more, and presently flames were seen lifting in the direction of the old tannery.

"Now there is a fire!" exclaimed Harris.

"Yes, a fire! Fire!"

The mob outside were rending the air with their cries. The flames rose higher, filling the streets with shadows and causing the sky to glow with rich color.

"It is the old red tannery. Phillips has set fire to it!"

"No, some boys have done it," said Tilly. "I passed them in coming down."

"Shall you let the department go?"

"No," answered Jackson. "The sheds aren't worth saving. Phillips shall pay for this; his lawlessness has bred more lawlessness."

The mob yelled itself hoarse demanding that the steamer be sent to play upon the flames. But Jackson held firm in his course. The light of the fire revealed his sister's face, and the enraged throng easily guessed her mission. Again they had been baffled.

Shortly after Phillips learned the sheriff was coming with a large posse, and he resolved on one last desperate stroke. He came across the street alone, with uplifted hand, in the attitude of one wishing to hold parley. Jackson believed that if he could talk calmly with the man he could persuade him to give up his lawless intention, and readily granted him an interview. He left Beagle in charge of the hose above, and slipping through the single side door, appeared in the street at the foot of the building.

"Say, Jackson," began Phillips, passively. Then with a sudden treacherous movement, like some infuriated beast, he sprang upon the president of the village and bore him to the earth. With a yell of triumph the mob dashed forward. The engineer instinctively felt they had been betrayed, and without waiting for the word turned the water into both lines. Jackson and Phillips writhed and struggled in the shadow of the building. Beagle directed the stream on the advancing crowd and beat it back.

"Fair play naow, men," he called. "Let 'em fight it aout. His side wins who wins."

This half loyalty cost Beagle his position. But meantime his hose did good service; and the mob, held in check, could only yell encouragement to their chief. Flames from the burning tannery still gave a lurid light to the scene. The combatants were both very powerful men. Jackson, taken at a disadvantage, seemed to have lost the fight before it was fairly begun. Slowly, steadily, however, he worked his arms loose from the blacksmith's mighty hug which pinioned them at his side. Now they rolled on the ground in the dark and mud; now they struggled to their feet, their faces showing fierce and angry in the murky glow. Above their heads the stream of water kept up a steady sibilation, hissing defiance to the circling mob.

Little by little Jackson gained upon his antagonist. Now he had him by the wrists and forced him back against the building. The two were panting almost as furiously as the steamer within. The door through which Jackson had issued stood slightly ajar; inserting his elbow, with a deft movement he flung it wide open. With a cry the crescent mob started forward, but Beagle with his stream of water swept the front of the building as with some giant blade bloody in the firelight.

The moment of supreme effort had come. Phillips fought hard. He comprehended Jackson's intentions, but felt his ability to cope with him slipping away. Slowly, relentlessly the force was applied which bore him across the threshold. Then with one powerful effort Jackson threw his man within the walls of the department, turned swiftly and bolted the door behind him. Another instant and he was again upon the blacksmith; but Phillips had given up the fight. Exhausted he lay in a heap upon the floor.

"You couldn't 'a' done that, Jackson," he panted, "but with the two wettin's and not a thing to eat to-day—"

Beagle lifted the stream and sent the water pattering in drops upon the heads of the distant men. With their leader a prisoner the mob no longer had spirit to keep up the struggle. At midnight the sheriff came, but he found the town quietly slumbering.

Thus was the fair name of Saugatauk preserved, and an innocent man saved from an awful fate. Further investigation showed there had been a robbery, and that during or following it the murder had been committed. Before the week was out a tramp was arrested in a neighboring county bearing upon his person some of the stolen property, and a careful examination of his clothing revealed the bloody imprint of the fish-spear, where he had wiped it upon his coat-lining.

No action was brought against Phillips or his followers. The president, ever a charitable man, was the first to ask that the matter be forgotten. His aged mother contends it was fitting the second of the name should have his nullifiers, also, for without her punning daughter she continually forgets present history and reverts to that of the first Jackson.

AT THE CHICKLEY CROSS-ROADS

BY MAY BELLEVILLE BROWN

They called it the Chickley Cross-Roads to distinguish it from the Apache Cross-Roads, three miles further south, and the Patti Cross-Roads on the opposite side of the river, where the stage-road takes a turn up into the hills on its climb toward Coyote. The Apache Cross-Roads gained the name from an Indian raid that years before had swept across the country that way, and the Patti Cross-Roads were so named, according to the neighborhood wits, because Patti never had come that way.

But one and all knew whence came the name of Chickley Cross-Roads. In the first place, Chickley post-office was located in the roomy house of brown ironstone that stood at the intersection of the roads; in the second place, the same building contained The Store—I give it the alphabetical importance that it occupied in the vocabulary of the settlers, when they did not speak of it as "Chickley's." Aside from the commercial importance of The Store it was a most alluring place of evenings, with its hot stove, inviting cracker-boxes and opportunities for neighborly intercourse. Thirdly and lastly, Chickley himself was there. This may not convey impressiveness to the stranger, but as an institution Chickley's far surpassed the post-office, the store, or even the school-house, where, besides the school, the monthly preaching, the Sons of Toil lodge and the Literary Society held forth.

Chickley was a grizzled little man, in his early forties, with a shrewd, kindly face, an encouraging word for every one, and a knack of settling all difficult or disputed questions that did more to increase his reputation than the fact that he gave his customers long credit and heavy weights. He was justice of the peace; but his usefulness to his neighbors extended far beyond the Solomon-like judgments of his court. From a domestic difficulty to the ownership of a stray pig he was consulted, and appeals from his decisions were rare. Then, too, pioneering is not conducive to an easy style, nor yet to a flowing chirography, and as scribe Chickley knew the contents of much of the mail that he sent out as postmaster.

"Yep," said Jube Sands to Matt Lowe, as they jogged toward The Store after supper for their usual dish of gossip, "Chickley is a born dieplowmat. He kin settle every one's troubles but his own, an' there he's helpless as a fence-post."

"Ye mean about his dotter?"

The rising inflection was all the stop that Matt Lowe would allow his curiosity or Jube's loquaciousness. He was practically a new-comer, and as Chickley's had been his only medium of information he knew little of Chickley himself.

"Yep, about his dotter; an' about Mahaly Ashman, too. Ye see, Chickley moved here an' started The Store about fifteen year ago. Jenny V. was two or three, an' as cute a youngster as ye'd see frum here to Coyote, but mighty fiery. An' his wife—say! I've heard of Tartars, an' I've seen wildcats, but she was wors'n either!"

"Temper?" queried Matt, laconically.

"Temper! Jerushy geewhillikens! Why, they ain't never been no man on the plains who'd stand it but Chickley. Mornin', noon an' night it was jaw an' scold an' abuse him an' Jenny V. A pretty woman, too, an' she could be smooth-spoken; but Chickley didn't get any of that. To make it harder for him, about that time Mahaly Ashman moved here with her brother, Bill Ashman, two mile up the road. His woman tol' mine how Chickley an' Mahaly had be'n engaged to marry onct, back in Ohio, an' how Mis' Chickley, like the red-headed Jezebel that she was, broke it up an' got him herself. Mahaly didn't know Chickley was here till she got here, or she wouldn't have come, an' she wished many a time that she hadn't, the critter made it so hot for her. Mahaly was a tailoress, an' got right smart to do in the township, an' when Mis' Chickley wa'n't abusin' him she was Mahaly; but she, bein' a kind-spoken, Christian woman, never turned a word, though she took no comfort here. So after while she took her shears and thimble down to Metropolis, an' it bein' a large town, an' she handy at her trade, Bill says she's made right smart of money."

"Well, I swan!" Matt spat in the road-dust in an absorbed manner, and Jube warmed to his subject.

"Well, 'bout five year ago Mis' Chickley up an' died. 'Heart failure,' the doctor from Coyote called it, but we-all, knowin' her so well, made up our minds 'at too much temper had been the means of a hot-box in some wheel in her crazy head, an' had burned her out, so to speak. We couldn't be sorry, though, for we thought that now Chickley could get Mahaly, after all, an' she, bein' so restful, would kinder make up for the cantankerous time he'd had; but we reckoned without Jenny V. She's jest what her mother was at her age, I reckon, pretty an' peppery, an' when Mis' Chickley left her her temper she also throwed in her spite against Mahaly. Jenny V. is a good dotter enough, an' fond of her father, but she hates Mahaly Ashman like poison, an' that settles her pa's hash."

"But 'how about this young cattle-buyer, that's playin' sort o' fast an' loose with the girl? Won't he take her off?" said Matt.

"Well," was the answer, "we boys had begun to hope that between death an' the cattle-buyer Chickley'd have a little peace yet; but he found out that the young man ain't nothin' but a gambler an' scamp, tryin' to get roun' a pretty girl an' a father that's well off; so he gave him a good old round-up and sent him off. It's pretty good for the girl, but it's hard on the old man. Hello! there's the stage. What's the news from down the road, Pete?"

The fountain of information ceased flowing as the two men joined the group at Chickley's door. The stage from Metropolis, forty miles away, made triweekly trips from that place to Coyote, carrying the mail and stray passengers across the country to post-offices along the way, and connecting the two railroad towns before named. The driver, therefore, was to the country-side what the daily paper is to the town. He brought the news from Metropolis, exchanging this for neighborhood items at each stopping-place, and thus his fund grew to extreme proportions. The telegraph might flash the news into Metropolis that half a hundred or more had been killed in some casualty. It would be balanced in the evening at Chickley's by the information that "Tink" Wilson, at Arcadia, had chopped a finger off with a corn-knife, that Lew Granger, at Cranberry, had lost a horse with colic, and that the two Schermerhorn cousins had fought over Pink Robinson at Pulpit Rock, and the items would be given impartial consideration.

To-night the stage had been delayed two or three hours by a breakdown, and the driver

was making preparations to stop over night at Chickley's. Genevieve Chickley stood on the step behind her father. She was a slender, pretty girl, with a pink and white face, auburn hair, and brown eyes with a flash in them. Now she was eyeing the mail-bag so anxiously that she scarcely nodded to the driver or bystanders. As the postmaster went behind the counter she followed and looked on while the mail was sorted. Finally, whisking an envelope from the heap with a short "This is for me," she hurriedly slipped out of the store.

Chickley looked after her with a worried expression, scratched his grizzled chin, and went on with his work; but as soon as it was disposed of and the crowd had settled down around the stove he quietly followed her.

"Was your letter from that scamp?" the father asked, sternly.

Genevieve hesitated a moment. "Yes, it was," she answered, shortly.

"Ye know, honey, that I told ye not to have anything more to do with him."

"Well," she answered, angrily, "can't he write to say good-by?"

Chickley held out his hand. "Let pa see the letter, pet," he coaxed.

"I won't, Pa Chickley, an' you can't make me, for I'm of age!" she answered, defiantly.

"Well, honey, ye know I'm only talkin' fer your own good, an' you'll see it that way some day," said Chickley, kindly.

The girl answered by turning her back with a wilful movement of her shoulders, and the man sighed as he went back to the store.

Two days later the settlement was stirred through to its most outlying farm-house by the news that Jenny V., as Genevieve Chickley had been called, had left home without a word. The conclusion was that the forbidden lover had notified her by mail of his plan for flight, and she had gone with him.

The regular visitors at Chickley's hesitated about going to the store that evening, but Jube Sands settled the matter by saying, "He'll be lonesome an' used up enough about Jenny V., an' we won't make the place seem any stranger to him by stayin' away. Only it'll be hard to not bring up talk that may hurt his feelin's, an' to act as though nothin' had happened."

They found Chickley with his old manner, saying nothing about his own troubles and interested in every one else. But there was a change in his face, a drawn look about the mouth, a hollow look under the eyes, in which the kindly twinkle had given way to a weary expression. No one dared touch on personal matters, so they sat around the stove discussing crops tentatively, and spat in the box of sawdust, trying by their hearing to show Chickley that they suffered with him.

The weeks were long to Aaron Chickley. Each time the stage came he felt a feverish eagerness as he handled the mail. Each time, as he found no letter from Genevieve, sickening disappointment clutched him. In the long night hours, as he lay alone in the house, staring upward into the darkness, he was tormented with doubts. The child had not been a dutiful one, but she was all he had, and his tender heart yearned for her with more than a father's love. She had been daughter, wife, sister, in his affection, and the uncertainty of her fate wore upon him constantly. Jube Sands stopped visiting Chickley's.

"I can't stand it, boys," he said; "we ought to go, same as ever, but when I went back late the other night, after the tea that I'd forgotten, I could see him in the window, with Jenny V.'s picture before him, an' tears on them cheeks of his, an' blessed if he wa'n't darnin' a sock at the same time! If Jenny V.'d stood before me then I'd slapped her jaws for her, it made me so mad to see the old fellow starved in his heart an' neglected in body at the same time."

"Well!" broke in Matt Lowe, impatiently, "why don't he go down to Metropolis an' get Mahaly Ashman?"

Jube looked the unimaginative creature over with scorn before he answered, witheringly, "I declare, Matt, it's a wonder the cattle ain't et ye. Don't ye see that Jenny V., hatin' Mahaly with all her hate, an' her mother's, too, 'd never come back if Mahaly was here? She'd die by the road first. An' Chickley's afraid the girl ain't be'n well treated an'll need a home, an' he's keepin' it for her, an' spoilin' it for himself. I tell ye," in a burst of enthusiasm, "Chickley's a man in a million!"

In which decision all concurred, even the extinguished Matt, and Jube never tarried at Chickley's after the handling of the mail.

A year and a half had dragged monotonously away in the little settlement since Genevieve went. It was early spring, a touch of green on the prairies, a hint of winter in the air, as the stage rolled up at Chickley's one afternoon. Chickley's usual bodyguard was absent at plowing and seed-time, so he came out unattended. Passengers often came as far as the store and waited for friends to come there for them, so when he saw that a woman had dismounted he did not turn his head, though he instinctively removed his hat. He exchanged mail with the driver, who rather inexplicably hurriedly drove away. As the stage wheeled down the road Aaron Chickley turned to the woman with a courteous salutation, but it froze on his lips. It was Mahala Ashman, looking at him with a tender, motherly, wifely smile on her lips, and holding a little child to her breast. Aaron had not seen her for ten years.

"Mahaly! Mahaly!" he almost whispered.

"Yes, Aaron, it is Mahaly," she answered, tenderly, and with composure, as she was prepared for the meeting; "and I have come to tell you something. Let us go into the house."

Scarcely realizing, the man led the way into the lonesome room beyond the store. Sinking into a rocker, Mahala opened the wraps about the bundle on her lap and disclosed a chubby baby asleep. Even as Aaron, dumb with wonder, looked on it its rosebud mouth curled, its eyelids raised, and with a flourish of its pink fists it stretched itself awake and smiled straight into his face.

"It's Genevieve's baby," Mahala said, softly. "She died in my arms last week, begging our forgiveness, and asked me to bring you the baby with her love."

Tears were streaming down the man's face as he dropped on his knees beside Mahala and took the soft little hands in his. He could not realize it all yet, but Mahala and the baby at least were real.

"Genevieve's baby! Oh, Mahaly, how thankful I am for this! After all the awful anxiety about the life she might be leadin' it's a relief to know that she died repentin', with you, an' that her baby was brought back to me. I've thought of her murdered, an' in shameful suffering, but this is more than I hoped for!"

There were tears in Mahala's eyes as she went on. "Yes, Aaron, she was lawfully married, too, though he is a scoundrel in every other way. They had just come to Metropolis when she took sick, an' died suddenly. Her husband signed a paper giving up all claim to the baby, for I thought you'd want to adopt her and have her brought up as Genevieve Chickley—like her mother."

He looked worshipfully at her. "I declare," he faltered, "you are the first person that's ever planned for me. It's just what I'd have done myself. Now I'll have Genevieve's baby for sure."

"Yes, Aaron," replied Mahala; "and she don't look like her mother or father, but she's the image of you."

It was true. The gray eyes and straight brows were a replica of his own, while the soft brown curls had no hint of the mother's auburn or the father's jet locks, but were what Aaron's must have been before time and trouble had grizzled them.

Suddenly Aaron remembered Mahala. It had seemed so natural to be beside her that not a personal note had yet entered their interview. He marked the tenderness with which she brooded over the child, and a thought struck him.

"I—I'd love to have her, of course, Mahaly," he faltered, "but I believe you want her—an'—you could take better care of her, anyway, than a man, an' I can afford to pay you anything you ask, so maybe—"

"Of course I want her, Aaron," returned Mahala, with shining eyes, "and I intend to have her, too; but I won't take her away from you. I've come to stay, and to take care of you both now. I promised Genevieve I would—that is, if you want me."

"Want you! Want you!" Aaron had Mahala's comely face between his hands and was looking rapturously into her tender blue eyes. "Why, there ain't been an hour in over twenty years that every drop of blood I got ain't cried out for ye; an' my throat would knot up so's I could hardly speak sometimes for the want of ye. I've never been free to tell ye before, an' I hadn't thought that ye'd want me after the way ye've be'n treated, so I wouldn't have asked ye. Mahaly, have you missed an' wanted me all these years?"

Mahala's eyes looked levelly into his. "All my life long, Aaron, since first I knew you, I have felt that we belonged to each other, and I've always tried to live as I thought you'd want me to."

The man's arm was thrown fondly around her shoulders, and both heads were bent above the cooing child.

"Jest you an' me an' the baby, Mahaly," said Aaron, huskily; "only ourselves, an' no one to say it's wrong. It'll be paradise, where it was nothin' but a desert before. Jest you an' me an' the baby, Mahaly; jest you an' me an' the baby!"

"Talk about the 'survival of the fittest,'" exclaimed Jube Sands; "that man Darwin oughter see the Chickley family. Aaron's the proudest an' happiest man from here to China, Mahaly's as near an angel as a prime housekeeper can be, an' little Jenny V.'s as sweet as though she was their own child. It's worth a dollar a trip to go down to the Cross-Roads jest to get a sight of the faces of them that lives there!"

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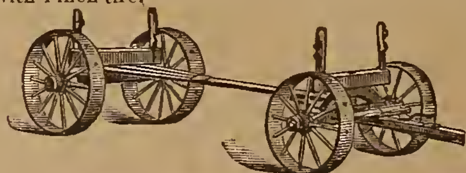
In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire.



This wagon is made of best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

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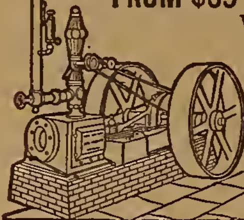

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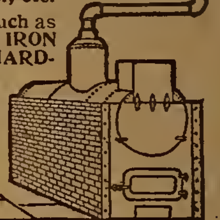

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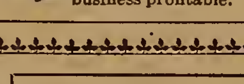

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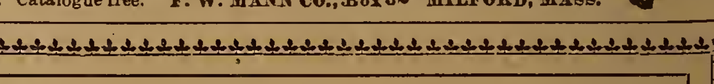

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SIMPLY TRUST HIM!

BY ADELBERT CLARK

While stars are brightly shining,
  Sleep, darling, sleep!
And cease thy sad repining,
  Sleep, darling, sleep!
For life is too short for weeping,
  And too sweet for endless woe,
So bury thy grief forever·
  While shadows are drifting low!

The veil of night is spreading,
  Sleep, darling, sleep!
The light of the stars are shedding,
  Sleep, darling, sleep!
For soon the beautiful morning
  Will dawn a cloudless day,
And perchance it will drift asunder
  The grief that you dream must stay!

So while the night is hovering,
  Sleep, darling, sleep!
God's mercy thy head is covering,
  Sleep, darling, sleep!
He giveth the heavy-laden
  A hope, a calm, a rest;
He draws them close to his bosom,
  Oh, wonderful love, so blest!

God that madest earth and heaven,
  Darkness and light!
Who the day of toil hast given,
  For rest the night!
May thine angel guards defend us,
Slumber sweet thy mercy send us,
Holy dreams and hopes attend us,
  This livelong night!

—Reginald Heber.

A TRUE NEIGHBOR

One of the most important lessons to be learned from this beautiful story of true neighbor-love, the parable of the good Samaritan, is sympathy. To win souls we must have the winning spirit. When we have humanity along with the divine, we shall win our neighbors to Christ.

Show the lost ones that you love them and you will move their hearts. During the Civil War a little boy was placed in a hospital. He said it was so hard to be there, away from all those who loved him. The nurse bent down, kissed him, and said she loved him. He answered, with a satisfied smile, "That was like my sister's kiss. It is not hard for me to die now, when I know some one loves me."

If we had something of this sympathy for the lost and sorrowing the whole world would soon feel our influence. Sympathy is the key to the human heart. I think it was George Macdonald who said, "If I can put one touch of a rosy sunset into the life of any man or woman I shall feel that I have worked with God."

An incorrigible soldier, upon whom all punishments had been tried, was brought once again to the colonel, and he was told that they had tried everything with him, but in vain.

"No," said the soldier, "there is one thing you haven't tried." And the colonel asked, "What is it?"

The soldier answered, "Forgiveness. I am sorry for what I have done."

The colonel said, "We forgive you."

The tears started. He had never been treated that way before. It was the starting-point of an earnest Christian life.

Don't cast people off when they go wrong. Don't talk them down. Quit your gossiping about people's mistakes. The man who never made a mistake is a myth. Mingle gentleness in all your rebukes. Make allowances for constitutional frailties. Never say harsh things where kind words will do as well. There are many in our churches and out of them who are in need of sympathy, and that will speak to their hearts a great deal louder than eloquent sermons or long prayers. What the man who is down wants is a lift. Let us make men feel that we love them and that we mean to help them and they will be helped.

"The bread cannot rise while the yeast is kept apart from the dough." A chaplain, preaching to the prisoners, said that the only difference between himself and them was owing to the grace of God. One of the prisoners sent for him and asked him, "Did you mean what you said about sympathy with us, and that only the help of God made you different from us?"

Being answered in the affirmative the prisoner said, "I am here for life, but I can stay here more contentedly now that I know I have a brother out in the world." That prisoner behaved so well that he was pardoned. He became a soldier in the war for the Union, and died thanking God to the last for the chaplain's sympathy.

Happy is the man and blessed the woman who has in his or her soul that which gives to life the warmth of the sunshine, the redolence of the rose and the freshness of the dew.—Christian Endeavor World.

GOD'S CENSUS

Most people complain that the census-taker who comes to all our doors armed with the authority of the nation asks too many questions. We dislike to tell our age, or whether we live in a rented house; or object to some other of the inquiries which he is sent to make. But suppose there came a stronger messenger of even a higher power and took the census of our spiritual state! Suppose our consecration could be tested, our tempers put to proof, our words weighed, our gentleness and patience in all human relations and our faith in God measured and recorded!

The divine census of the world, which we call judgment, is, we sometimes think, postponed. We sum it up as belonging to the distant future, under the title of the "Judgment-day." But God's judgments are no more postponed than his mercies. "No one has learned anything rigidly," wrote Ruskin, "until he knows that every day is a day of judgment." We live in the presence of God. He needs no messengers to go with book and pencil to question and record. He takes account of all our spiritual attainments and defeats, joyfully noting all our overcomings, sorrowfully grieving over our defeats. That thought is happiness for those who work for him. It is a comfort to those who sorrow over sin; for think how hard it would be for us to tell our heavenly father of failures which he had not seen! It is only a fear to those who are unloving and put God out of thought.

The census enumerator, therefore, is a suggestion of that intelligent and ordered world in which God has given us our place and work. There are no neglected corners or unknown facts in God's full view of life. In the census-taking some are overlooked through carelessness or neglect. But God's enumeration of the world is complete and infallible. It goes beneath acts to motives. It acknowledges purposes of good which we have been unable to carry out. It is a father's loving oversight of children, a master's reckoning with his servants, a judge's consideration of the thoughts and acts of men. It goes on, as the lives of men go on, this day and every day. Shall we not live and think as we would like to appear when the summing up of God's observations shall be open to the inspection of the world?—Exchange.

ROYAL TENDERNESS

A motherly queen was Louise of Denmark, the glorious old lady who has just passed away at the age of eighty-one. She has been called the "mother-in-law of Europe," so many of her children have married kings and queens. At her bedside were, among others, the dowager Empress of Russia, the King and Queen of Greece, and her noble daughter, the Princess of Wales. Hers was a good faimily to marry into. "A fine study for mothers-in-law," some one calls her.

But she was as good a study for mothers and wives. Her closer claim to the throne of Denmark she transferred to her husband. When Germany made so great inroads upon his possessions she was his comfort and support. Accomplished and learned as she was, a woman of wide and masterful instincts, yet she was, above all, a home-maker, and her husband loved her dearly. Not long ago a beautiful picture was seen and reported—that of the aged king holding his arm like a lover over his wife's head as she slept, gaining a little relief from insomnia. His position was a cramped and painful one, and the infirmities of age are heavy upon him, but he would not withdraw his arm until his wife awoke.

It is the example of such piety, strength and human tenderness in their rulers that, far more than fleets and armies, will make a people great.

THE GREAT WRESTLING-MATCH

Dr. George H. Hepworth, speaking of the great struggle between good and evil in our hearts, says there is a class of emotions which a man should welcome as he does his tried and trusted friends—love, charity, kindliness. Under their influence his soul becomes symmetrical and beautiful, as when a sculptor chips away the marble that is useless and brings to light the statue that was hidden within. And there is another class of emotions which literally poison the blood and open the door wide for every possible ailment. They are the worst enemies of that poise and serenity which mark an ideal manhood—resentment, revenge, ill-temper and ill-will—and to cherish them is fatal to happiness. They are the instruments in the orchestra which are out of tune. They are the hairs in the watch, storm-clouds in the sky, the miasm of the dank and dreary swamp.—Selected.

"PREFERRING ONE ANOTHER"

In most respects, if not in all, you will be sure to find some one surpassing you; so that, if you want to insure happiness for yourself, you must not envy.

If you can heartily enjoy the success of others you will often have opportunities for enjoyment; but if you can take pleasure only in your own success your pleasure will be small.

Envy is next door to murder; we would have him out of the way.

It is not preferring others to set them above yourself, expecting them in turn to elevate you.

Hero-worship makes heroes.

You will never be pushed up by the men you thrust below you, but pulled up by the men you lift above you.—Daily Companion.

THE MALIGNITY OF ENVY

There is a story of two men who dwelt in a certain city, one very envious and the other very covetous. A ruler sent for them, and promised to grant whatever they desired, on condition that he who asked first should have what he asked, and the other should have the same doubled. Then, lest if he asked good the other should have more, the envious man asked that one of his own eyes should be put out, so that his companion might lose both of his.—Spencer.

THE ILLUSIVE CHARACTER OF FAME

The young are often dazzled by applause, and think that in becoming famous lies the secret of happiness. Nothing could be farther from the truth than that. Emily Dickinson puts it graphically and well in her little rhyme:

Fame is a bee,
  It has a song—
It has a sting—
Ah, too, it has a wing!

—Selected.

THINGS THAT HINDER NEIGHBORLINESS

Pride; for neighbors are often far below us in social position.

Business; for we do not always place first our Father's business.

Sloth; for neighborliness requires time and pains.

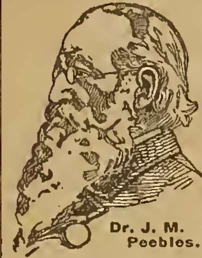
Timidity; for it needs a courageous man to be a good neighbor.—Daily Companion.

THE MIGHTY HEALER

Dr. J. M. Peebles, the Great Vital Healer, Baffles Disease and Cures So-called "Incurable Diseases."

CURED IN THE PRIVACY OF YOUR HOME

Health, happiness and contentment, the greatest trinity in life, gained through psychic force. The new Vital Science, originated by Dr. J. M. Peebles, the great scientist of Battle Creek, Mich., who, through a combination of psychic and physical treatment, has rendered such remarkable cures that he has astounded the medical profession on two continents, and made his name a household word. Mrs. J. W. Henderson, of St. Johns, Washington, who suffered for years with pain in the ovaries and uterine weakness, was entirely cured by the Peebles treatment. Mrs. C. Harris, Marionville, Pa., says she cannot express too much gratitude for the results received through Dr. Peebles' treatment. She suffered for years from falling of the womb. Francis Wavering, Seattle, Washington, suffered for twenty years with a severe case of Catarrh; completely cured through the psychic treatment. Geo. H. Weeks, 53 Minerva St., Cleveland, O., sends heartfelt thanks for restoration of health after suffering from nervous prostration and insomnia; says he now enjoys restfulness and sleeps sound every night. Mrs. Mary A. Clair, Lexington, Ky., after thirty years' continual suffering from epilepsy and trying to be cured by eminent physicians, writes: "Two months of your treatment has made earth almost a heaven to me." Thousands of testimonials have been received, which absolutely prove this new science to be the greatest curing power of the age. You are cured in the privacy of your home through what is known as the "Home Treatment," which makes distance no bar. Send your name, address and leading symptom to Dr. J. M. Peebles, and through his occult power he will diagnose your case absolutely free; also, he will send you advice and booklets which should be in the hands of every man and woman who prize health and happiness. This is absolutely free to those addressing Dr. J. M. Peebles, Battle Creek, Mich.



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HOW'RE THEY COMIN' WITH YOU?

I started 'round the other day
  To satisfy myself
How fast the general public
  Was accumulating wealth.
Each individual I met
  I interviewed, you see,
So now I'll try and tell you what
  Some of them told to me.

A shoemaker said he was "pegging away,"
  A lawyer was "lying low,"
A doctor was making his money "dead easy;"
  It's the truth—they told me so.
A butcher managed to make "ends meat,"
  The iceman had "struck a frost,"
The plumber I met was "hitting the pipe;"
  Poor fellow, I guess he's lost.

A pickpocket was "taking things easy,"
  While a baker was "loafing all day;"
A grocer told me, in confidence,
  That "things were going his weigh."
A dentist was "living from hand to mouth,"
  And here, just to make a rhyme,
I'll have to ring in the jeweler,
  Who is working, of course, "over time."

A burglar said "times were picking up,"
  But he had to work at night;
And even a poor blind beggar said
  He was "doing out o' sight."
An ossified man was having
  An awful "hard time," he said,
While an undertaker told me
  He was "doing quite well—on the dead!"

A prima donna, who warbles,
  Said "life went by like a song;"
But a little soubrette I casually met
  Was barely "getting along."
An oil producer told me
  He "managed to get along well,"
While a Hebrew merchant mentioned
  He had "clothing to burn or to sell."

I asked a spiritualist how things were;
  "Just medium," he replied;
A barber said he was "scraping along,"
  And then curled up and died.
A furrier "ran a skin game,"
  A jockey was "on the go,"
But it turned my head when a dressmaker said
  She was doing "sew and sew."

Now, pardon me if, in conclusion,
  Of myself I modestly speak—
All I'm doing is digging out stuff like this
  For thirty cents a week.
—National Laundry Journal.

A SURPRISE BY TELEPHONE

The telephone is often the medium through which a practical joke can easily be perpetrated. The following illustrates how a susceptible youth recently received a surprise:

He called up an East-end residence and asked if Miss Blank was at home. A woman's voice answered and told him that the young lady was not at home. The young man, however, evidently wanted to talk with some one, and the following conversation went over the lines.

"Who is this talking?"

"Oh, I don't think you know her."

"Well, who is it, anyway? If I don't know her I would like to."

"You are sure about that, are you?"

"Why, certainly. Who is it?"

"Well, if you'll promise not to say anything about it, I'll tell you. It's the servant-girl, and a black one at that."—Cleveland Plain Dealer.

HER POSITION

The congress of mothers was in session and the delegates were paying rapt attention to the costume of the orator of the day, who was addressing them on "The Proper Organization of the Home." "The true home," she said, gracefully throwing back her head, in order that the diamond sunburst at her throat should be assessed at its full value, "the true home should be organized just as any ruling or directing body is. It should be a congress in which the wife is—"

"Speaker of the House," came in mighty chorus from the delegates, "what is the use of going to a convention if you do not know what you want?"—Baltimore American.

HAD AN ANSWER

House hunter—"Seems to me this house isn't very well built. The floor shakes when we walk."

House agent—"Um—y-e-s; that's the new kind of spring floor for dancing, you know."

House hunter—"And these stairs creak terribly."

House agent—"Y-e-s; we furnish this new patent burglar-alarm staircase without extra charge."

AN ADVENTURE

Three smart young men and three nice girls,
  All lovers true as steel—
Decided, in a friendly way,
  To spend the day awheel.
They started in the early morn,
  And nothing seemed amiss,
And when they reached the leafy lanes
They   in   like
rode   twos   this!

They wandered by the verdant dale,
  Beside the rippling rill;
The sun shone brightly all the while;
  They heard the song-bird's trill.
They sped through many a woodland glade,
  And when they rested in the shade
Theysat   intwos   likethis!

The sun went down, and evening came,
  A lot too soon, they said;
Too long they tarried on the way,
  The clouds grew black o'erhead.
Down dashed the rain; they homeward flew
  Till one unlucky miss
Slipped sideways—crash! Great Scott!
Weareallmixeduplikethis!
—California Curio.

A SHILLING SAVED

At a certain cloth-factory in Scotland it was the custom to fine the work-people for turning out bad work. One day a workman brought a piece of cloth to be examined, and the manager found two little holes about an inch apart. He then showed these to the man and demanded two shillings fine, a shilling for each hole.

"Is it a shilling for each hole?" asked the man.

"Yes," said the manager.

"And is it the same for every hole, big or little?"

"Yes; exactly the same," said the manager.

"Well, then, I'll save a shilling;" and putting his fingers in the holes he quickly made the two into one.—The Argonaut (San Francisco).

HARDEST PART IS OVER

Hodown—"I understand your wife insisted on drawing the plans herself for your new house."

Jigsup—"Yes; she's busy over there now."

Hodown—"Oh, I thought she had finished. She told my wife she had all the closets laid out."

Jigsup—"Yes; but now she's got to put the rest of the house around them."—Philadelphia Press.

DIDN'T WORK

Smythe—"It won't work."

Brown—"What won't work?"

Smythe—"Hypnotism. Tried it on the butcher. Looked at him fixedly until I had his undivided attention, then I said, very slowly and with emphasis, 'That—bill—is—paid.' "

Brown—"And what did the butcher do?"

Smythe—"He said, 'You're a liar!' "

BECAUSE

No more I hear his footsteps
  Upon the silent street,
No more to measure off his tread
  My pulses madly beat.
The joy and the expectancy
  My heart no longer feels.
He comes—I know it not, because
  My love wears rubber heels.
—Harper's Bazar.

SOLITARY GRANDEUR

Mama—"It is very naughty to tell lies, Eva. People who do so don't go to heaven."

Eva—"Did you ever tell a lie, mama?"

Mama—"No, dear, never!"

Eva—"Won't you be fearful lonely in heaven, mama, with only George Washington?"—Exchange.

REFRACTORY

Mrs. Peterkin—"Without exception you are the most obstinate, perverse man I ever saw."

Peterkin—"What have I done now?"

Mrs. Peterkin—"Why, I have had that new cough mixture in the house a month and you haven't once caught cold!"—Harper's Bazar.

APROPOS

Manager—"What do you mean by using such language? Are you the manager here, or am I?"

Employee—"I know I am not the manager."

Manager—"Very well, then; if you're not the manager, why do you talk like an idiot?"

THE USUAL RESULT

Friend—"You took your son into your establishment some months ago to teach him the business, I understand. How did it turn out?"

Business man (wearily)—"Great success. He's teaching me now!"—New York Weekly.

DECIDED AT LAST

She—"Have they decided what the national air is?"

He—"Oh, yes."

She—"What is it?"

He—"Millionaire."—Detroit Free Press.

A SPRING IDYLL

Mrs. Smallot—"Why don't you burn up that pile of trash in the lot?"

Mr. Smallot—"Wind's the wrong way. The smoke would all blow in our own windows."—New York Weekly.

TO HIDE IT

Hewitt—"What are you raising whiskers for?"

Jewett—"Well, I don't mind telling you that I'm wearing a necktie my wife gave me."—Harper's Bazar.

QUALITY

Hewitt—"She has womanly qualities."

Jewett—"Yes; she's a good talker."—Harper's Bazar.

LITTLE BITS

To be contented with what we have is about the same as to own the earth.—Ram's Horn.

When a family gets to depending on "family" it indicates that the brains have begun to dwindle.—Indianapolis Journal.

Notwithstanding a fly has something like two thousand eyes, he cannot see that he is not wanted in the company he visits.—Boston Transcript.

Professor—"Give me the names of the bones that form the human skull."

Medical student—"I've got them all in my head, but I can't recall their names."

What has become of the old-fashioned sentiment that charged a woman with extravagance unless she bought clothes for the children that were too large?—Atchison Globe.

Could any power the giftie gie us
To see ourselves as others see us,
No doubt with great surprise we'd gape
And ask, "Who is that stupid ape?"
—Detroit Free Press.

"Some people," said Uncle Eben, "would like to be good-natured; but dey ain't smaht enough ter git no one to listen to 'em 'ceptin' when dey's abusin' somebody."—Washington Star.

A little girl drew a dog and cat on her slate, and said to her mother, "A cat oughtn't to have but four legs; but I drew her with six, so she could run away from the dog."—Exchange.

Freddy—"Ma, carpets are curious things, aren't they?"

Mother—"Why?"

Freddy—"'Cos they are bought by the yard and worn by the feet."

She—"How that woman we just passed does hate me!"

He—"She looked pleasant enough."

She—"That's all done for effect; but if you noticed she never turned to take in my new suit and hat."—Detroit Free Press.

"It's a shame," said the summer boarder, "for you to waste so much land on that pig-pen when you might turn it into a beautiful lawn."

"Naw," replied the farmer, who knew his business; "the pen is mightier than the sward."—Philadelphia North American.

"Goodness! We'll miss the opera!" she said, impatiently. "We've been waiting a good many minutes for that mother of mine."

"Hours, I should say," he replied, somewhat acrimoniously.

"Ours?" cried she, rapturously. "Oh, George, this is so sudden!" Then she fell upon his neck.—Standard Times.

Not much good gold did she disburse,
  Yet well she spent each golden minute.
She had a precious little purse,
  And there was precious little in it.
That was before she started out.
  She meant to shop; her means were ample.
When she got back that purse was stout,
  For it was stuffed with many a sample.
—Chicago Record.

"We use the expression, colloquially, 'out of his head,' " the instructor remarked, "to describe a man's condition when he is not in his right mind, or, as we sometimes say, is 'beside himself.' "

"Ah, yes," said the foreigner, who had mastered the language in its plainer forms and had advanced to the study of idiomatic English. "And when a man ees out of ees head and beside himself it ees at such a time he can climb up on hees ear."—Chicago Tribune.

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HOUSEHOLD

[CONTINUED FROM PAGE 11]

WOMEN AND WAR

BY ELLA WHEELER WILCOX

We women teach our little sons how wrong
And how ignoble blows are; school and church
Support our precepts, and inoculate
The growing minds with thoughts of love
and peace.
"Let dogs delight to bark and bite," we say;
But human beings with immortal souls
Must rise above the methods of a brute,
And walk with reason and with self-control.

And then—dear God! you men, you wise,
strong men,
Our self-announced superiors in brain,
Our peers in judgment, you go forth to war!
You leap at one another, mutilate
And starve and kill your fellow-men, and ask
The world's applause for such heroic deeds.
You boast and strut; and if no song is sung,
No laudatory epic writ in blood,
Telling how many widows you have made,
Why, then, perforce, you say our bards are
dead,
And inspiration sleeps to wake no more.

And we, the women, we whose lives you are—
What can we do but sit in silent homes
And wait and suffer? Not for us the blare
Of trumpets and the bugle's call to arms—

For us no waving banners, no supreme,
Triumphant hour of conquest. Ours the slow
Dead torture of uncertainty, each day
The bootless battle with the same despair,
And when at best your victories reach our
ears,
There reaches with them to our pitying hearts
The thought of countless homes made des-
olate,
And other women weeping for their dead.

O men, wise men, superior beings, say,
Is there no substitute for war in this
Great age and era? If you answer "No,"
Then let us rear our children to be wolves,
And teach them from the cradle how to kill.
Why should we women waste our time and
words
In talking peace when men declare for war?

SOME DELICATE DESSERTS

In hot weather one naturally craves the fruit-acids, and it seems too bad to spoil the fine and delicate flavoring of the fruit and lose its beneficial effect by mixing it with lard and flour into a pie. Much more delicious, as well as healthful, are the stewed fruits whipped up with whites of eggs, which can be so easily prepared from berries, apples, peaches or plums. If fresh fruits cannot be procured, take dried prunes, apricots or peaches, wash thoroughly, and let them stand several hours in cold water; then put them to cook in the water in which they were soaked, and let them simmer gently until tender. After straining through a sieve add to one quart of the pulp the juice of half a lemon, one cupful of sugar, a pinch of salt and the whites of three eggs beaten very stiff. Serve ice cold with whipped cream and sponge-cake if desired.

RASPBERRY SHERBET.—Two quarts of berries crushed with two cupfuls of sugar. When the sugar has dissolved add two cupfuls of water, pass through a sieve, add the juice of one lemon, and pour into the freezer. A variety of other fruit-juices may be prepared in a similar way.

ICE-CREAM WITH FRUIT OR NUTS.—To one quart of thin cream add three fourths of a cupful of granulated sugar and one teaspoonful of flavoring extract; then add one half cupful of almonds or preserved ginger, which may be chopped, but not too fine.

LEMON JELLY.—To one third of a boxful of gelatin add one cupful of cold water; soak an hour, add one cupful of hot water, one half cupful of lemon-juice, one teaspoonful of lemon extract and two cupfuls of granulated sugar. Stir until the sugar is dissolved, then set on ice until jellied and ready to serve.

RASPBERRY JELLY.—To one third of a boxful of gelatin prepared as before directed add one cupful of raspberry-juice, the juice of a lemon and one and one half cupfuls of granulated sugar. Stir until the sugar is dissolved, strain, set on ice until jellied, then serve. Jellies may be prepared from nectarines, peaches, plums and numerous other fruits in the same manner.

FRUIT SALAD.—A pretty fruit salad may be prepared by making half the quantity of lemon and half of raspberry or other pink fruit-juice, to contrast with the yellow of the lemon. Add nuts, shredded oranges, bananas and preserved cherries.

BAVARIAN CREAM.—Soak a quarter of a boxful of gelatin in one half cupful of cold water for an hour; then add one half cupful of hot milk and one tablespoonful of granulated sugar. Stir until the sugar is dissolved, strain into a two-quart dish surrounded with ice and water, and add one cupful of cold cream and one teaspoonful of lemon or rose flavoring. When the liquid begins to jell beat rapidly with a rotary egg-beater until it is very light, then add the whites of two eggs beaten light to which have been added a pinch of salt and two tablespoonfuls of granulated sugar. Chopped candies, fruits, nuts, macaroons or dry cake may be mixed with Bavarian creams, and in this way a great variety of them prepared.

JUNKET.—Into one tablespoonful of cold water in a cup drop a junket tablet and crush with a spoon, to dissolve quickly. In one quart of new milk dissolve four tablespoonfuls of sugar, and set the quart cup containing the milk in a dish of hot water. Be careful to remove at once when the milk is lukewarm, for junket cannot be made of milk that is overheated, and for this reason it cannot be made of milk that has been boiled or sterilized. Flavor to taste—one teaspoonful to a quart is sufficient—then stir in quickly the dissolved tablet, and pour immediately into junket-glasses or a glass serving-dish. Let it stand undisturbed on the table in a warm room until firm, like jelly, then put in a cool place until ready to serve. Moving or stirring junket while jelling spoils it. A teaspoonful of liquid pepsin may be used when the tablet cannot be procured. Junket when served ice cold with cream and sugar is a dainty dish for tea, and particularly grateful to invalids with weak stomachs.

F. B. C.

HOW NOT TO DO IT

However much bric-a-brac we may have in our parlors, however many lovely pillows and handsome rugs, let us not drag them to the front porch now that the season has come for the long evenings out of doors, with family and friends about us.

A certain amount of porch furnishing is desirable and attractive, but it is sometimes carried to excess. I have seen pillows of delicate coloring and texture and rugs so handsome and expensive out on the covered porch that the owner must have lived in constant apprehension of thieves, dogs, children, rain and a long list of casualties besides.

If our porches and yards are to be used as places of rest and recreation, then beauty and simplicity should combine. There are plenty of hardy vines and flowers that are more beautiful for porch climbers and decorators than any delicate hothouse products. There are chairs purposely made to withstand every sort of weather; there are rugs and pillows that are not harmed in the least by sunshine or dampness, and only these should find a permanent place on the porch.

There are extra occasions when the parlor furniture may be brought out, to nobody's discomfort; but in homes of wealth it is not unusual to transform what is meant to be as simple as outdoor living into a place of luxurious appointments, so that one is in constant danger of breaking this, spoiling that or misplacing some artistically adjusted piece of furniture.

Here, if anywhere, let us live simply and come near to nature. There are as many household cares in rich homes as in poor, and when we leave them all to spend a social evening with our families out on the front porch, let it be a real and not a pretended leaving of indoor cares behind.

Life has become too complex to furnish our homes in old-time simplicity. A hundred things are necessities to us, which to our fathers and mothers were unattainable luxuries. This is but natural and right in an age of progress; but let us hold to absolutely plain living so far as our porches go. Let us get so entirely away from indoor furnishings that a whole evening may pass without one "Be careful!" "Don't break!" "Now straighten the rug!" to the children.

For our own sakes, as well as for theirs, let this part of the home be for nature and not for art—so called. And if we are so unfortunate as to have no front porch or side porch, let us deny ourselves other luxuries until we have one, and meantime use our dooryards for the summer-evening parlor.

We live too much indoors, and when we get out of doors we carry with us entirely too much of household care. I pity the woman who cannot enjoy an afternoon picnic without her rocking-chair, her pillows, her book and a place free from dirt, mosquitoes and all known discomforts. Luxury is good, but roughing it is better sometimes. And so I pity the inmates of a home where even the yard and the porch have become conventionalized beyond the point of being retreats for perfect enjoyment.

BERTHA K. BROWN.

TESTED RECEIPTS

MUSHROOMS WITH BROWN SAUCE.—Select the buttons of uniform size; wipe them clean with a wet flannel, put them in a stew-pan with a little water, and stew gently for a quarter of an hour. Stir in the following brown sauce: Put in a saucepan a heaping tablespoonful each of butter and flour, and stir them together over the fire until they are nicely browned. Gradually add part of the liquor in which the mushrooms were boiled, add salt, pepper and a little grated nutmeg, then carefully pour over the "rooms."

MUSHROOMS WITH TOAST.—Toast may be served under them, using either the brown or white cream sauce; or the sauce and the mushrooms may be poured on a dish with broiled beefsteak or broiled chicken, or with baked or roasted tenderloin or beef.

CELERY WITH TOMATO SAUCE.—Use the upper half of the celery; wash, cut into pieces two inches long, and cook in boiling water until tender. Drain in a colander, and for three cupfuls of stewed celery prepare a sauce with a pint of strained stewed tomatoes heated to boiling and thickened with a tablespoonful of flour rubbed smooth in a little water. If desired add half a cupful of thick cream. Turn over the celery, and serve hot.

CELERY AND POTATO HASH.—To three cupfuls of cold potatoes chopped rather fine add one cupful of cooked celery minced. Put into a shallow saucepan with cream enough to moisten well, and salt to season. Heat to boiling, tossing and stirring, so that the whole will be heated throughout. Serve hot.

SALSIFY, OR VEGETABLE OYSTER.—After scraping off the outside parboil and slice the salsify; dip the slices into a beaten egg, then into fine bread-crumbs, and fry in hot lard. It is very good boiled and then stewed a little in milk with a little salt and butter. Or make a batter of wheat-flour, milk and eggs, cut the salsify into thin slices (first boiling it tender), put them into the batter with a little salt, and drop the mixture into hot fat by spoonfuls. Cook until a light brown.

ELLA BARTLETT SIMMONS.

CATTLE FOR EXHIBITION

HOW THEY ARE PREPARED SO AS TO LOOK THEIR BEST

At the great show and auction sale held at Kansas City last year upward of five hundred head of cattle from the finest herds in the world were entered for exhibition and for sale. A visitor gives the following account of the careful methods used in preparing the cattle for the show ring:

"After their trip on the cars, many having come hundreds of miles, they are more or less soiled by the accumulation of dust and dirt on the skin. The stock-yard stables are provided with large wash-rooms, well supplied with brushes, scrubbers, scrapers, rubbers, cloths and soap, though many of the more prominent breeders will use nothing but their own brushes, etc. The animals are first well curried, then all the loose dust and hair is brushed out with a fine bristle brush. They are then copiously lathered from head to foot with warm water and soap. When carefully scrubbed they are rinsed with clean water, scraped, and rubbed dry with linen cloths.

"The horns are polished by first scraping the rough, loose horn with glass; they are then sandpapered and rubbed with emery-powder until they glisten like burnished brass, after which they are protected by flannel-lined leather covers made expressly for each individual. When the polished horns need cleaning it is done with Ivory Soap on a damp cloth; then they are again polished with a strip of almost dry flannel on which Ivory Soap has been rubbed.

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"In conversation with a groom I learned that almost without exception Ivory Soap is the only soap used for the purpose, and that no other soap leaves the skin in that cool-looking, baby-pink condition, or gives that much-desired pearly, silky luster to the hair."

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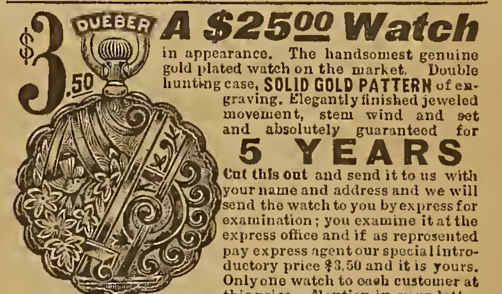

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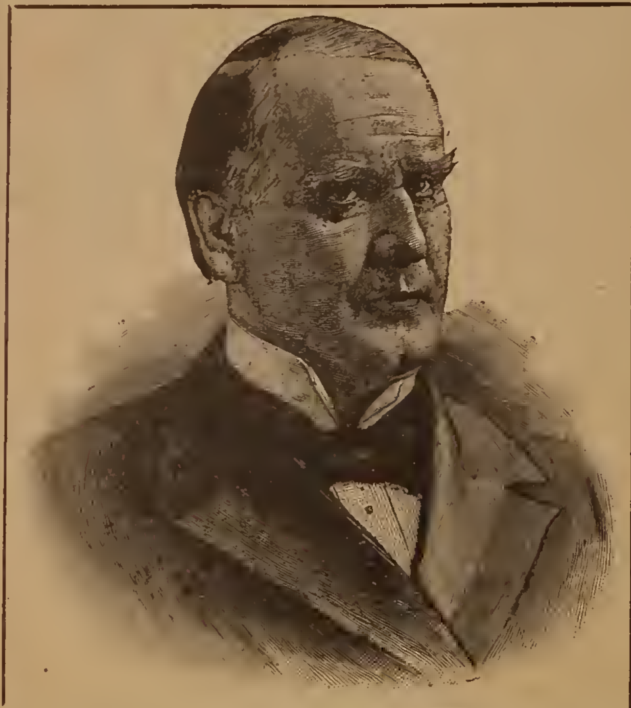

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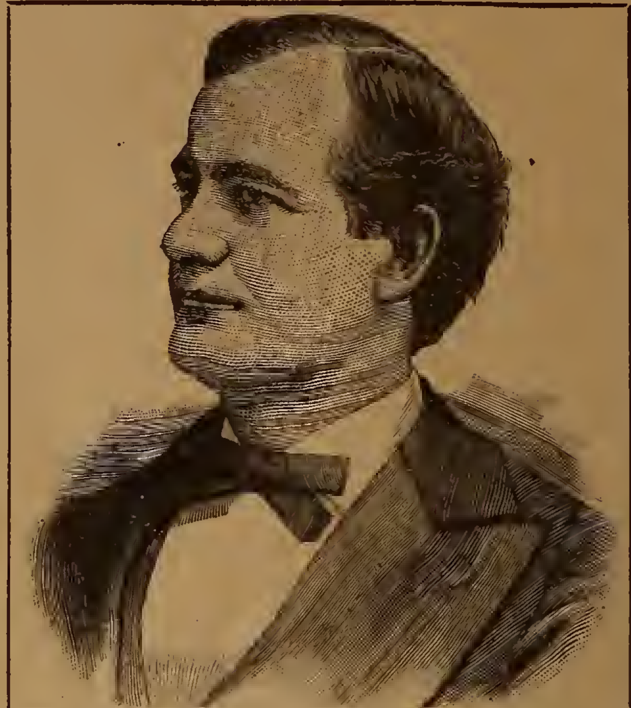

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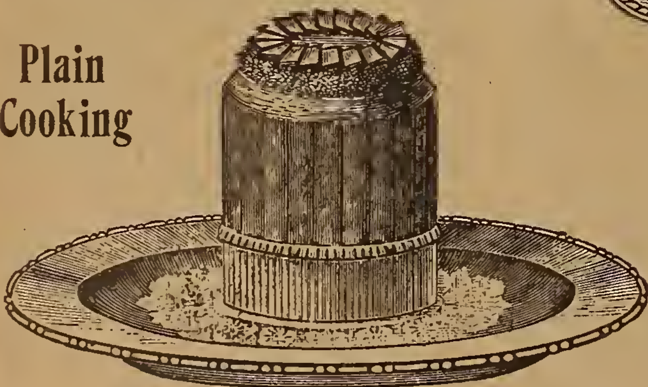
FRUIT ON CAKES

Plain Cooking



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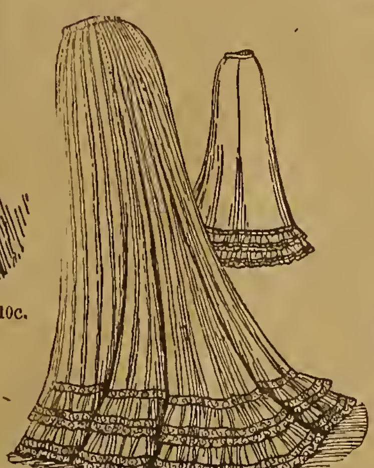

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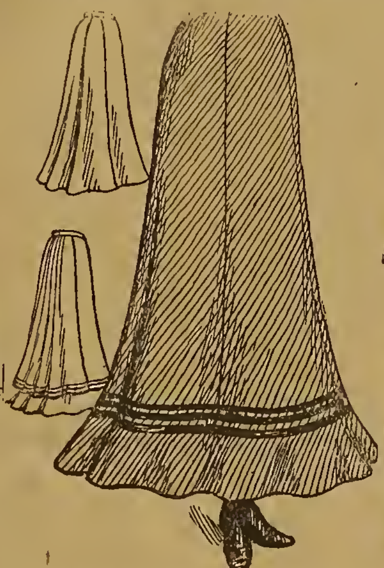

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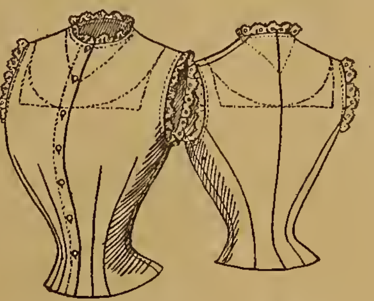

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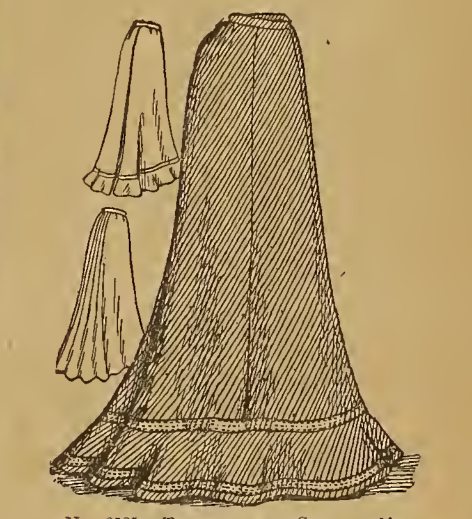

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FARM SELECTIONS

SOME APPLE-GROWING IN KANSAS

The story of success is always a pleasing one, instilling hope in the breast of the listener and stimulating him to greater endeavor. The man who scores a success in his particular line of legitimate undertaking contributes to the prosperity of his community and is a working element in the welfare of the world.

The development of that section of the United States so indefinitely characterized as the "West" has furnished many worthy examples of surmounting great obstacles, overcoming discouragements, and of the final triumph of the sturdy, persevering pioneer. Many are the experiences related, showing the marvelous possibilities of the country when backed by level judgment and willing muscle.

One man's requirements often happily combining with another's ability work great advantage to both. Such a circumstance effected the beginning of the success of Fred Wellhouse, of Kansas, the most extensive commercial orchardist in the United States. He is widely known as the "apple king" of Kansas, and the story of his eminently successful career in orcharding should be an inspiration to all who read it. Something of it is related here by Mr. F. D. Coburn, secretary of the Kansas Board of Agriculture.

The year 1875 found Mr. Wellhouse without money, but with a definite knowledge of tree-growing and orcharding in Kansas, acquired by years of close observation combined with practical experience, and full of faith in the possibilities of the state for fruit-growing. L. B. Wheat, a lawyer, owned three tracts of 437 acres of land which was not profitable. Mr. Wellhouse closed a contract with Mr. Wheat to plant this—160 acres near Fairmount, and 117 acres near Glenwood, in Leavenworth county, and 160 acres in Miami county, near Gardner—with apple-trees. These lands had cost Mr. Wheat, with improvements, about $10,000, and could be rented for perhaps $1 an acre. He furnished the land, fenced it (breaking that part of it not previously in cultivation), erected buildings for tenants, dug wells, etc. Wellhouse & Son (the firm name) furnished the trees, planted, cultivated and took care of them until they came into bearing, getting all grain grown on unoccupied land between the trees, and paid taxes for the first five years. After that Mr. Wheat paid taxes and each party was to bear one half of the expenses and each receive one half of the income until Wellhouse & Son should receive fifteen bushels a tree, or so long as the trees might bear. The Glenwood orchard was planted in the spring of 1876, the Miami county tract in 1878, and the Fairmount orchard in 1879, with varieties as follows:

Glenwood tract (117 acres)—Ben Davis, 60 acres; Winesap, 16 acres; Missouri Pippin, 41 acres.

Miami county tract (160 acres)—Ben Davis, 80 acres; Missouri Pippin, 42 acres; Maiden's Blush, 8 acres; Cooper's Early, 8 acres; Winesap, 22 acres.

Fairmount tract (160 acres)—Ben Davis, 80 acres; Jonathan, 40 acres; Cooper's Early, 8 acres; Maiden's Blush, 8 acres; Winesap, 24 acres.

The years of usefulness of these orchards were from 1880 to 1895, during which time they produced a total of 410,417 bushels, giving a net income of $104,000, or $52,000 as a result of the venture to each party during the fifteen years' active life of the orchards. The account practically closed with 1895.

Wellhouse & Son now own 1,220 acres of younger orchards, located in Leavenworth and Osage counties. About one third of these are now laden with fruit, and the product of this season is estimated at 20,000 bushels, approximately valued at $5,000.

Their largest crop was 80,000 bushels, in 1890; the year's expenses amounted to $13,000, and the gross receipts for apples $52,000. The next year's crop was 63,698 bushels.

Their trees are set when two years old, in trenches instead of holes, sixteen feet apart in rows north and south, and the rows thirty-two feet apart.

SHEEP IN TOO LARGE FLOCKS

Mr. B. E. Rice says: "On the stock ranges and ranches of the West the flocks run into thousands. Why not here?" He will no doubt find it practicable to keep a flock of several thousand sheep in Ohio. It has been done on the deserts of Australia, on the fertile pampas of South America, and, as he says, on the ranches of our great Western plains. Where land and pasturage cost nothing more than the labors of the shepherd the flock-master can afford to lose a large percentage of his flock and still make the business profitable, but in Ohio and Pennsylvania, where the conditions are entirely different, such losses would be ruinous.

Daniel Sterling, one of the largest sheep-raisers in northern Pennsylvania, found it necessary to keep his sheep in small flocks of not more than a hundred, and each flock was pastured in a separate field during the summer, and sheltered and fed in different barns and sheds during the winter. The different flocks were never allowed to congregate together, to crowd the weak, trample on the lambs, and breed disease.

Lack of proper winter care and insufficient food will no doubt hasten the development of disease already brooding in the system, and the general debility produced by starvation and exposure will produce disease. As the vast amount of combustible materials collected closely in the compactly built city furnishes the fuel for a great conflagration, so a multitude of animals in one flock furnishes a favorable field for the harvest of death.

The Rev. G. D. Carrow, missionary in South America, said of the great herds of sheep on the pampas: "If flocks exceed one thousand or fifteen hundred the proportion of loss in lambs is largely increased. The very young and feeble lambs are much more likely to lose their mothers, and perish for lack of nourishment, or be trodden to death beneath the feet of the older and stronger sheep." Thus it appears that large flocks not only breed disease, but there is a great increase in the loss of lambs.—J. W. Ingham, in National Stockman.

DAIRY PROSPECTS IN CUBA

The most attractive industry in Cuba is dairying, and if some of your readers who are getting only one and three fourth cents a quart for their milk will sell out, come down here, and start a modern dairy near Havana, they will make fortunes, and confer a blessing on the Havanese. Milk now sells in Havana at twenty cents a wine-bottle (about one fifth of a gallon); it is sold principally to the cafes and in families where there are babies to rear. It is an unknown article among the poor. As a substitute there is an enormous consumption of condensed milk, which is retailed at thirteen cents a can. I find lately that the market has been flooded with a well-known brand made in the States, but on using it I find it has been put up especially for this trade; it is very thin, and not nearly so good as the same brand was, and I presume is now, in the States. This has probably been brought about by competition here, the importer demanding a lower-priced article, and the producer being weak enough to accede to the demand and put up an adulterated article under a well-known standard brand. The local milk is mostly produced in stables located all over the city; the cows are supposed to be driven into the country every night and brought back in the morning in time for milking. A further supply is brought from the country in cans looking not overclean, with something like a wad of corn-husks for a stopper, and I doubt much whether the stopper is fresh every day. If not, one shudders to think of the germs that may be hatched therein. Aeration is unknown, and cooling down not thought of. When received from the milkman it is immediately boiled, and usually plentifully salted. In a country where soiling crops can be raised the year round, near a city of a quarter of a million inhabitants, with milk selling at twenty-five cents a quart, a practical dairyman who can't get rich has something the matter with him. With a few hives of bees his would really be a "land of milk and honey."—H. E., in Rural New-Yorker.

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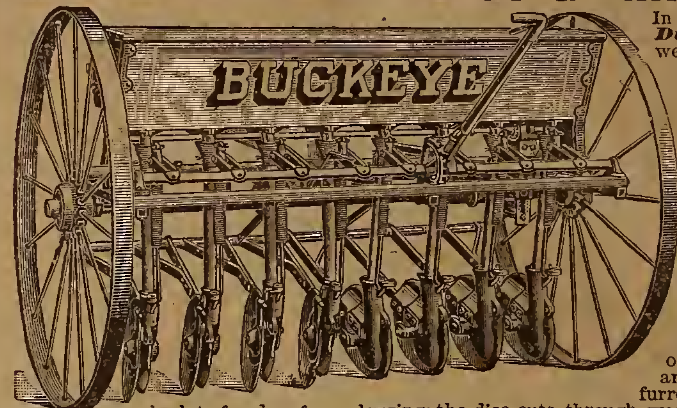

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HOW CHINESE FARMER MARKETS CROPS

Lack of Transportation Facilities the Chief Difficulty

BY WILLIAM N. BREWSTER

How does a Chinese farmer dispose of his crop after harvest? In several respects he does much as the American tiller of the soil; he holds it for a better price if he can afford to, or sells it at once if he cannot help himself, or he feeds it to his pigs. But he generally does what few American farmers would think of trying—he eats most of it. Most cultivators of the soil in China have small holdings, or rent only enough to produce food for themselves. The family harvests its little crop, threshes it out by hand, carefully dries it in the sunshine upon the threshing-floor, and stores it in bins in a bedroom of the house. The rice is cleaned by the women, a little at a time, as used. Even the wheat is often ground and bolted daily by hand and eaten as a mush that is much like paste. They say it is more "filling" that way than when made into bread. One would think it might be both filling and lasting! Such a family has little grain to sell, and their wants are few. The women spin and weave all the clothing worn, so the only cost is for the raw cotton. They have almost no variety of diet. If the fields produce rice, they eat rice; if sweet-potatoes, they eat tubers. A small garden-patch furnishes radishes, garlic, onions and various other vegetables. While their crops are growing the men get what work they can carrying burdens, and thus earn a little cash for current expenses. The family that owns fields enough to raise all its own food is considered well to do.

Group of Chinese Pigs

But there are many who have a small margin of their crops to spare. Like the American farmer, they often feed it rather than sell it. But excepting a few fowls, preparing live stock for market is confined to fattening pigs. Cattle are not raised for food in South China to any extent. A few are killed and eaten when they get sick or become useless for draft purposes. This is the faint shadow cast upon the present religious sentiment of China by the ancient Buddhist superstition regarding the sacred character of cows. One chief advantage of feeding is that the soil does not become exhausted so rapidly. A bedroom of the house is turned into a pig-pen. The most common feed is boiled sweet-potatoes, though rice and other cereals are used when the potato supply is exhausted. The pig has much the same diet as his owner. Often the only difference is that the pig never grunts in vain for more, while the children sometimes go hungry to bed. The Chinese pork-raiser knows he cannot afford to let his pigs run down. He has learned by long experience exactly what it will cost him to get each head ready for market. He found out centuries ago by practical experiment that cooking the food is economy for beast as well as for man.

Though he raises pork, the village farmer eats very little of it. How can he afford to when one pound retails for a sum equal to a day's wages for skilled labor? Here is food for reflection for the Chicago union workman who strikes for shorter hours and more pay. How would he like toiling from daylight to dark and on his way home spend all he had earned buying one pound of raw pork? That was a wise man who defined civilization as the "multiplication of man's wants." It is well for the Chinese mechanic's peace of mind that his wants are few. And this high price for pork goes almost entirely to the producer. There is no Chinese Phil Armour to monopolize the market and take the pig's share of the profits. The difference in price between live hogs and raw pork is only about twenty-five per cent. The butcher's bill is a light one. The farmer here in Hinghua can sell his fat hogs at his own door for as much as he could get for them in Chicago. The time will come when Western pork will be shipped to China along with American flour and cotton.

But there are comparatively rich men in China who collect large grain-rents, and hold them for high prices, and upon a small scale manipulate the market just as is done in the grain-pits of America. This is rendered less difficult because of the impossibility of transporting grain profitably except on the waterways. Only a small per cent of the farmers have any grain to sell; grain guilds in each locality have great power to push up the price in seasons of threatened scarcity.

To prevent this mischief the government has public granaries in many official centers, where the mandarin in charge stores rice, and when merchants and rich landed proprietors seek to raise the price the public granaries are opened and rice is sold in limited quantities to each purchaser at a [CONCLUDED ON PAGE 6]

Government Granary at Hinghua, China

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In an article in the "Forum" for September on "Cotton-seed" Mr. E. L. Johnson says:

"Time was when the cotton-seed was the least of all seeds in public estimation. It still holds a place far below its intrinsic worth, but it bids fair to become in the future by its merit the greatest of all. Its romantic history is now so well known that it is not necessary to dwell upon it or to state how an agricultural product which farmers were once glad to dump into a river, if one flowed conveniently near, has become worth thirty cents a bushel—twenty dollars a ton—on the banks of the Mississippi itself.

"This remarkable progress has been gained only by a hard and constant struggle against ignorance and prejudice, and against the opposition of competing products, which were regarded as primary crops. The cotton-seed was regarded as an impertinent by-product, interfering with the markets for cereals. At the same time it was admitted that all competition between the cereals should be free and unhampered. But now those who have been accustomed to look upon the cotton-seed as a mere 'by-product of the cotton-field' must alter their point of view. Let us compare this so-called by-product with one of the cereals:

WHEAT AND COTTON-SEED COMPARED

	Protein	Carbo-hydrates	Fat	Value
Wheat	11.87	73.69	2.09	$1.00
Cotton-seed	17.57	10.82	20.19	1.39

"The above table gives the number of pounds of food compounds and the analytical value of one hundred pounds each of wheat and cotton-seed, according to the methods in use by the agricultural experiment stations. It shows the surprising fact that, pound for pound, cotton-seed has a greater intrinsic value than wheat. Neither is the bulk of the cotton-seed crop by any means insignificant as compared with wheat. There are raised in the Southern states alone five sevenths as many bushels of cotton-seed as there are raised bushels of wheat in the whole of the United States.

"In spite of all the criticisms, just and unjust, of Southern agricultural methods, the yield an acre in bushels of cotton-seed, over and above the fiber, is greater than the yield of wheat an acre; and it is increasing. The reports of the United States Department of Agriculture for the season of 1897-98, the latest obtainable when these calculations were made, place the average yield an acre of cotton-seed at fourteen and nine tenths bushels, as against thirteen and forty-three hundredths bushels for wheat. They are given more in detail in the table below:

ACREAGE AND YIELD OF COTTON-SEED AND WHEAT

	Acres	Bushels	Yield an Acre
Wheat	39,465,000	539,000,000	13.43 bushels
Cotton-seed	24,319,500	363,261,000	14.9 bushels

"Surely, in view of these figures the cotton-seed deserves attention as such, independently of the cotton fiber.

"Although the cotton-seed has been almost obscured by the far more showy cotton crop, it has nevertheless been proved by recent investigations to have an intrinsic value half that of the cotton crop when fully and properly put to such uses as are already known for it. There is a known latent value in the cotton-seed crop of $200,000,000, equal to four cents a pound on the entire cotton crop, which is still annually lost. Little real scientific study and little close economic thought have been given to this modest article as yet; but when they are given to it to the same degree as they are given, for instance, to petroleum or iron or sugar-beets new properties or new uses or new products may be discovered which may make the cotton-seed crop a more valuable one than the cotton crop.

"It is worthy of remark that the cotton-seed as an article of utility and value sprang into notice only after the Civil War. Unlike cotton, it had no historical connection or intimate association with slavery or the war. It has never made the boastful claims of King Cotton, yet it has contributed far more to scientific agriculture and to the study of economics in the cotton states than cotton. In the four hundred or more mills engaged in 'crushing' cotton-seed the freed negro has found ready employment; and he forms nine tenths of the employees of these factories to-day. In its beneficent influence over the South the cotton-seed has indeed been marvelous."

In an address before the National Educational Association recently in session at Charleston, S. C., Booker T. Washington said:

"Every white man in America should make an especial effort to deal justly and generously with the black race. In doing this you will not only help the negro, but you will help yourselves. It is easy to treat those who are our equals in wealth, intelligence and social standing with justice, generosity and politeness, but the time to find the true worth of an individual is when he is in contact with an unfortunate individual or race. Any one can stand for the right when the world applauds, but real courage is tested by standing for the right when the world condemns.

"No race can ever be redeemed through any form of oppression—by withholding or withdrawing opportunities. It should be our central idea to extend and broaden privileges as fast as the race shows itself capable of rightly exercising them.

"One of the hardest lessons for a race, like an individual, to learn is that the way to permanent success is the mastering of the little every-day common-place opportunities that are right about our door, and the using of these as a stepping to more important positions. The race, like the individual, that learns this lesson may be retarded, but never defeated.

"The real worth of a race, like an individual, is tested by the fact whether or not it is able to make itself of such value to the community in the activities of hand, head and heart that the presence of the race is indispensable. It should be the high ambition of every negro to make himself not a burden, but a helper; not a receiver, but a giver; not a destroyer, but a producer.

"With the prodigious industrial development of the South the negro has a golden opportunity. In every corner of the South let it be the aim to give the black man training, coupled with the highest intelligence in agriculture, the trades, the domestic arts, as a foundation for citizenship. These will constitute the groundwork for higher and more important occupations as the world judges.

"But we as black people, and you as white people, should remember that mere material, visible possession, however important, will not alone solve our problem, and that education of both races will be a failure unless we keep constantly before us the fact that the final aim of all education, whether industrial or academic, is to produce goodness of heart, honesty of purpose, and that generosity of soul which will make us seek the elevation and freedom of all men regardless of class or race."

The National Afro-American Council, recently in session at Indianapolis, issued an address, which reads, in part, as follows:

"Let the Afro-American people stand unflinchingly by their suffrage rights. It is a life and death struggle. We regard it as an immoral and unprecedented construction of the fourteenth amendment to covertly seek to rob a large number of the citizenship of this country by state nullification of the precious rights guaranteed to them by the fourteenth amendment.

"We are not opposed to restriction of the suffrage rights by any state, by property or educational test which shall apply to all citizens alike, but we maintain that the state constitutions of Mississippi, South Carolina, North Carolina and Louisiana, enacted by a minority of the citizens of those states without submission for ratification to the people, confessing thereby that the action would not receive the approval of the people, are immoral in their purpose, in contravention to positive guarantees of the federal constitution, and in direct violation of the reconstruction acts by which those states were readmitted into the Union."

At an official banquet in Santiago de Cuba, given in honor of Governor-General Wood, Senor Tamayo, Secretary of State, in the course of an eloquent address said:

"This is a moment when political contentions should be set aside. The issue is national. Cuba is about to obtain what three generations bled for, and if the constitutional convention is not what it should be the noble dead will rise to demand that their blood shall not have been shed in vain. The curse of the mothers, wives and daughters of those who fell would be upon us. We should bear in mind that the sea of the tears of Cuban women is far deeper than the sea which bathes our island shores. If we fail in this convention we shall be unworthy of the blood that we shed at El Caney and at San Juan hill. General Wood is the true friend of Cuba, and I can certify to it. The United States government is sincere in the promises it has made. I appeal to you all to send to the convention the best and most capable men among us, and thus to show to the world that Cubans are worthy of the confidence placed in their capacity for self-government."

In his reply General Wood said:

"I am here as your friend, and in no other capacity. Everybody in the United States was astonished at the satisfactory way in which the municipal elections passed off. President McKinley personally asserted that he thought the time for the next step had come. Whatever the ultimate destiny of Cuba may be, her immediate future is independence. This is no political move on the part of the United States, but a sincere desire to do what is right. Therefore, I beg you as a personal favor to me and to the United States government to sink your political differences and passions, and to send men to the convention who are renowned for honor and capacity, so that the convention may mean more than the Cubans even now anticipate.

"Again I say, send the best men. The work before your representatives is largely legal work. I care not what your party politics are, but whatever they are, for the present party considerations must be suspended for the sake of the great end in view, the end that will make history and effect the welfare of all Cuban people."

A writer in "Mark Lane Express," London, says:

"On November 22, 1895, I wrote to the Marquis of Salisbury, and pointed out that during the ten years of 1885-94 the country has spent £320,000,000 on imported wheat and flour, and that the importation of flour instead of the equivalent in wheat had resulted in a loss to the country of £18,000,000. His lordship's secretary replied that the matter would receive consideration.

"It appears the matter has received but little consideration, because since the present government has been in office we have lost over £7,000,000 by importing flour instead of the equivalent in wheat.

"Were the importation of flour prohibited we should obtain much employment for our workers, better bread without any increase in the price, as our flour would be more freshly ground, the possibilities of adulteration would be reduced, we should receive millions of hundredweights of wheat offal we now leave abroad, should raise meat at a cheaper rate, more stock would be kept, and there would be an increase in our home-made manure, which would cause a considerable increase in the crops of the farm.

"If we had imported instead of any flour the equivalent in wheat we should have saved over £25,000,000 during the past fifteen years. But we are still losing about £1,500,000 each year by importing flour instead of the equivalent in wheat, as we leave the wheat offals abroad and have to buy substitutes for feeding our stock. Thus we suffer a double loss; we leave abroad something we require, and buy something else to take its place.

"Although our present government has been in office five years, and should have known the facts, they have done nothing to stop our annually losing an enormous sum of money, when the nation would gain so many indirect advantages were the importation of flour prohibited."

The writer has clearly set forth some of the reasons why the United States should export flour instead of wheat. He has pointed out our advantage in sending the finished product. Not only does the export of flour instead of wheat furnish profitable employment to our own workers, but the by-products can be turned into another finished product at home, and we can export meats instead of crude materials to be fed to animals abroad, and thereby lessen the transfer of soil fertility from this country to Europe.

In an article on ingredients of oleomargarine Hoard's "Dairyman" says:

"It is not improper to say that the item which we have called hog-oil is given as 'neutral lard' in the official tables, and that the euphoniously named 'oleo-oil' is of extremely uncertain origin. Then there is the item of 'butter-oil,' which is reported to be used quite freely. It is a new term and not a recognized product in the markets. It is probable that this butter-oil is extracted from a conglomerate mass of what used to be termed store butter—the dirtiest, rankest, rancidest accumulation of fat and dirt that can be imagined. This product, known on the market as 'grease,' is boiled and chemically clarified, and comes out as so-called butter-oil, and is a fit companion for the product of the rendering departments of slaughter-houses, where offal is turned into commercial products of various kinds—notably oleo-oil."

Exaggerating for Advertising Purposes I am on record as favoring the transformation of surplus cockerels into useful and valuable capons, but I do not like to see a good-enough cause strengthened by exaggerated statements. The advocates of caponizing, and especially the makers and sellers of caponizing instruments, in order to boom the business, are in the habit of telling how much larger and heavier a capon will grow than a rooster. Some, of course, do this ignorantly. They may be experts in making tools, and able to make most excellent and serviceable ones, but they are not poultry experts, and possibly have never seen the operation of caponizing performed, nor had a bird under their observation after it was operated upon. Theoretically a capon should grow faster than an unaltered bird, and many of our dealers in caponizing sets may believe this to be so. But it is not, just the same. Things are often radically different in practice from what we reason them out to be. One of the experiment stations has just published the results of some experiments in the comparative growth of capons and roosters, and states that the bird neither gains nor loses in weight to any appreciable extent by being caponized. This is no news to me, nor can it be news to anybody who has read what I have written on this subject for this paper during the past three or four years. I have never been able to see that a capon grows to larger size than a healthy rooster. But there is one point in favor of the capon that is seldom mentioned; namely, that the capon produces his flesh and the great mass of fat on less food than the rooster consumes and needs in order to hold his weight. It is true that I know of no systematic experiments in this line put on record. But such experiments should be made, and I hope that one or the other of our stations will take this up and show us how much we gain by operating on our surplus cockerels. Grain costs money. If we can save a portion of it by feeding it to capons rather than to roosters, besides making the flesh worth two or three times as much, why should we not do it?

* * *

Capon-making How easy a delicate job can be done when you have lost your fear of it! When operating on cockerels I used to do so with a good deal of apprehension, not amounting to fear or dread, but certainly to lack of complete ease of mind. I was brought up to consider such operations dangerous, and in a measure cruel. I have lost all this sentiment or sentimental feeling. I would just as soon perform the operation as not, and having lost this uneasiness I can do it better, quicker and without loss. At first I would have a bird die under my hands now and then—maybe one in twenty. Now I can almost guarantee the safety of every bird, and yet I do not take near the same precaution as formerly. I just open the bird, remove the testicles, then simply put it down again, and let it run with the rest of the fowls. Usually it will at once hunt for food pretty lively, and often make it quite hot for the grasshoppers.

* * *

The Cyclopedia of Horticulture The second volume of Prof. Bailey's Cyclopedia of American Horticulture has come to my table. The range of this is from E to M, and brings the number of pages of the cyclopedia to over one thousand. It is a grand work, no doubt. Each leading subject is treated by a number of experts, each presenting his special branch or phase of culture, etc. Mr. W. W. Rawson, for instance, treats on lettuce-forcing, and I quote the following timely information: "For the first early crop to be grown in beds or houses the seed is sown in the seed-house about August 20th in the latitude of Boston. By this means the lettuce will be brought into market the latter part of October or the first of November, after the frost has spoiled the outdoors crop, and thus it often brings very good prices. The sowing is made in a bed in the house prepared for the purpose with sterilized soil, so that there will be no fear of rusty root or mildew on the plants. The soil should be ten inches deep, well moistened and beat up very fine, with no manure or fertilizer. For every ounce of seed prepare a space six feet square, raking off the bed as smooth as possible. Sow the seed and then sprinkle the bed with water. Then sift on one fourth of an inch of either sterilized or clean subsoil, preferably the latter. In about four days the plantlets will appear. Three weeks from sowing the plantlets will be ready for transplanting. This should be done at the proper time; that is, before the plants become too large. Prepare the soil the same as for the seed-bed. If three inches of the sterilized soil, or some new soil that no lettuce has been grown in, can be had, it will be sufficient. Transplant the lettuce four inches apart in sufficient quantity to set out the prepared space. In three or four weeks these plants will be large enough again to transplant into the bed or house intended for them. Sterilizing is done in a box five by four feet and three feet deep, with several punctured steam-pipes in the bottom. The soil should be heated to two hundred degrees.

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"In preparing the bed for the last transplanting the soil should be well wet before working, and then let stand until the water has all drained off, which will be in about twenty-four hours. Now put in stable manure worked fine, with the first heat out of it, which is secured by piling and overhauling twice a week for two or three weeks before using. Apply this prepared manure about three inches deep, and dig into the soil to a depth of twelve to fifteen inches. Rake off, and mark with the marker eight inches apart. If the soil is new no sterilization is needed; but if old, would prefer about two inches of the top sterilized. This is done to prevent the mildew and disease that often comes from old, worn-out soil. If the bed is properly prepared it will need no watering. If the plants are large they may need to be sprinkled immediately after setting the last time. No more water is required until they begin to mature." Mr. Rawson recommends for this purpose the Boston lettuce (Boston Market), and offers in his catalogue a good strain of this under the name "Rawson's Hothouse," I believe. Altogether he is as good an authority on fancy lettuce as we have in America.

* * *

The Fruit Outlook A pretty large crop of apples seems now assured. I had a moderate crop of fine early apples, such as Oldenburg, Early Harvest, Red Astrachan, etc., but unfortunately I could not get an acceptable price for them, and was so discouraged about it that I gave orders to leave all the summer varieties that are not yet gathered on the trees until a change occurs in market conditions. I have other fine sorts now ripening on the trees, but have no idea what to do with them. Whether there will be better demand for Twenty Ounce, Gravensteins and other fall apples is yet an open question. Usually these sorts have sold well. In regard to the crop of winter apples the reports are yet conflicting. I thought that the crop all over was to be much larger than the phenomenal one of 1896, but my friend J. S. Woodward, of Lockport, who is himself a large grower of fruits, assures me that he finds less winter fruit in the orchards wherever he has traveled than was found four years ago. I hope he is right. Nothing is more discouraging than to have to gather a big crop of fruit, and then receive less money for it than it costs to put it on the market. The great overstock of peaches and plums that will be marketed will not improve the demand for apples. Barrels are now being offered to me at thirty cents apiece. I am not going to buy a barrel if I can help it, but I shall try to dispose of my fruit as I have done for several years; namely, sell it in bulk to a canning-house. The Baldwins will probably not be very large this year, while Spys promise to be especially fine.

T. Greiner.

SALIENT FARM NOTES

Politics A few days ago I sat down beside a young farmer, a stranger to me, and after chatting about the weather and crops for a time we drifted into politics. He seemed so one-sided and positive in his opinions that I asked him what sort of papers he read. He named two partisan papers of the extreme "yellow" type. "Are they the only ones you read?" I asked.

"Yes," he replied. "They are good papers, and belong to my side, and I like 'em first-rate. I won't read a —— paper if I was paid for it! They don't have anything in 'em but lies!"

Then he launched forth into a tirade of abuse of the president of the United States, ascribing about all of the evils on earth to him and his party, even expressing a wish that somebody would "knock him in the head and stop him before he made himself emperor and all the people slaves!"

I remarked that the empire, emperor and imperial stuff published was the silliest sort of nonsense, and that the editors of the papers he was reading knew it, but they published it to please their patrons and catch "suckers." If he would drop such fanatical sheets, and instead take a couple of good agricultural journals, he would get more information in six months that would be of value to him than he would get from "yellow" literature in ten years. I further reminded him that he is part of this government, and a government like this cannot be better than its people. If he advocated good government and a proper respect for our officials his example would naturally lead others to do the same, and his influence would be beneficial instead of prejudicial. If all our farmer friends would learn to investigate these things for themselves instead of being led hither and thither by partisan journals and well-paid "spell-binders"—determine to consider their interests and those of the whole people paramount to those of any set of professional politicians, and vote accordingly—the "yellow" journal would find no abiding-place in the farmer's home.

* * *

Cooking One of the first farmers I worked for when a boy would sometimes hitch up to a wagon "without notice," and telling me to go ahead with the work and look out for myself and the stock, take his wife and drive into an adjoining county to visit his relatives, often remaining away a week at a time. I then knew very little about cookery, and consequently fared rather poorly, but I made up my mind that if ever the opportunity came I would learn how to cook a square meal, such a one as I would like to eat. The opportunity soon came, and I improved it. When it became known that I could do plain cooking I was called on quite frequently to exercise my talent. Sometimes my employer would come to me in the field and say, "Would you mind going up to the house and getting dinner? Wife is sick in bed, and I don't know anything about cooking." Once I was sent to help a neighbor thresh, and just as the machine was ready to start the man came to me with a face as long as my arm, and taking me aside said, "My girl has took sick and gone home. Would you care if I asked you to help my wife to-day?" As I had been appointed to a position on the straw-stack it didn't take me long to set his mind at rest about the proposed change. Since that time I have "kept bach" many a time, once for two years, and I never failed to have a square meal at meal-time. My experience satisfied me that one of the most useful things any farmer boy can learn is plain cooking. He may have no use for the knowledge for years, and then suddenly have occasion to thank his stars that he can cook.

* * *

A young friend of mine went into a Southern state to seek employment. After looking about for a "soft job" until his money was gone he hired to a lumberman, and with several others was sent to a camp in the forest to chop. He knew next to nothing about cutting timber, but by closely watching the experts he soon learned how to go about it. He was not overstrong, and the work was severe, and it made every bone and muscle in his body ache, but he stuck to the work, though he was able to earn only about fifteen dollars a month. One day the men came into camp for dinner and found the cook lying in the tent drunk and no sign of dinner. The boss turned to the men and asked, "Can any of you fellows cook?" When a boy at home on the farm my young friend had been obliged to help his mother cook hundreds of meals for harvesters, threshers and "company," though he then detested the task. He stepped forward and said, "I can."

"Go to work and get dinner for these men," said the boss. He did so, and when it was over the boss said to him, "I'll give you forty dollars a month to cook for this gang." "I'll take it," promptly replied the young man. To him this work was as play compared with felling trees, while the men unanimously declared that he was the best and neatest cook they ever knew. He cooked in the camp two years, his wages being raised to fifty dollars a month.

* * *

Specialists Thousands of farmer boys are entering the colleges and institutions of learning and selecting courses of study. The field is now so broad that no young man can expect to thoroughly cover it. He can obtain a general smattering of many things in the few terms he will be able to attend, but he can become thoroughly proficient in none unless he gives to it his whole mind. The successful man of the present day is the specialist, and I would advise every young man to devote his whole energies to becoming a specialist. Study to make yourself an authority—an expert in one thing. The Jack of all trades is master of none, and his services are not in demand, except at the lowest rates and when times are good; but the thorough master of almost any one thing can command the best wages at any time if he is reliable. Get all the general information possible to fully develop your mind and give you a broad view of the world, but make yourself a thorough expert in one thing. There is a vast field to choose from, and he has only himself to blame who chooses unwisely. The thing to do is to so prepare yourself that when you enter the ranks of the world's workers you can take a high place and efficiently fill it.

* * *

Cow-peas and Corn When my corn reached a height of twelve to fourteen inches this season I took my hand-planter and planted two to three of the Black variety of cow-peas close by the hills of two rows. They soon came up and began to climb, and when the corn was ready to cut there was a mass of cow-pea vines wrapped about the stalks and several of the pods were ripe. The corn and pea-vines were easily cut with a sharp hook-knife, and I got at least a third more feed from the ground than where no peas were planted. I have sown the peas broadcast among the corn and planted them between the rows, but they grew into such a tangled mass that it was a difficult matter to move about when cutting the corn. Where the peas are planted close to the hill the vines are easily cut off with the stalks, but where they are planted between the rows or sown broadcast several vines from different directions twine about each hill and all must be severed before the hill can be lifted, and this makes slow, tiresome work. I shall try the plan of planting the peas close by the hill on a larger scale next year, doing the planting at different stages of the corn's growth, and try to learn the proper time for doing it to obtain the best results.

Fred Grundy.

OUR FARM

FARM THEORY AND PRACTICE

THE FERTILIZER TRUST.—There is general interest among farmers in the commercial-fertilizer trust that was formed in the beginning of this year. Forty of the strong manufacturing firms have gone into this combine, and many outside firms have entered into an arrangement by which they are bound to maintain prices and to act in the role of "friendly competitors." The effect of this combination upon present and future prices concerns all users of fertilizers. The trust is able to make forcible presentation of its side in the following fashion: "The new organization was created to save useless expense and to furnish the highest, guaranteed goods with the smallest margin of profit. For a number of years past competition has been so keen that agents, traveling and local, multiplied to such an extent as to really burden the industry. There was tremendous waste in transportation, by farmers in one state buying from a distant state, manufacturers in the East getting material from the West, and vice versa. There was great waste also in manufacture. . . . The brands employed can be reduced to the actual number required by different crops and conditions. The fertilizers can be furnished from the nearest factory, reducing freight charges to the minimum point. The manufacture can be systematized and the best machinery and labor-saving devices employed. Office and factory help can be reduced very largely, and large rent and salary expenses saved. And, finally, this strong, substantial concern, with money at command, will be able to furnish goods of the highest quality at the lowest possible price."

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PROMISE AND PERFORMANCE.—There is probably no claim in the foregoing that could not be made good. Competition is wasteful always, and intelligent co-operation cheapens cost. But any decrease in the cost of manufacturing and distributing commercial fertilizers does not interest farmers unless they receive some benefit therefrom. The question of most interest was, Will fertilizers be furnished us "at the lowest possible price?" Some of us have been led to watch the course of prices pretty closely, comparing the schedule of prices made by the trust to its traveling agents with the prices asked by outside concerns. The companies in the trust agreed upon the lowest prices they would permit their agents to accept from local agents, and at the same time these traveling agents were instructed to get higher prices from local agents whenever possible. These minimum prices are greater than some outside competitors are glad to accept, and many local agents of the combine are paying quite a little more a ton than the schedule of lowest prices calls for. This is a serious matter of business, and we could not afford to make such statements if we had not examined all the papers, including the trust's instructions to its traveling agents. When the local agent pays too much for his goods, the farmer must pay too much, and consumers of commercial fertilizers cannot afford to have prices pushed up gradually every year, as now promises to be the case unless outside competition is encouraged. There should be no hostility between manufacturers and farmers, but healthy competition should remain as a regulator of prices.

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THE "COMPLETE" FERTILIZER.—There is a prejudice against the use of a fertilizer containing only one element of plant-food, although that element may be the only one deficient in the soil to which the fertilizer is applied. Many like that word "complete," which has a safer sound to them. Any fertilizer containing the three commercial elements of plant-food is called a "complete" one, no matter how little of one or two of the elements it may carry. Before me is the analysis of such a brand, the amount of nitrogen being one per cent, and the amount of potash the same. That means twenty pounds of nitrogen and twenty pounds of potash in a ton, or two pounds of each to the acre when the application is two hundred pounds to the acre. Let us reason together. Two pounds of potash, worth in the market five cents a pound, are distributed over an entire acre of land with the thought that it can materially affect the crop. The expectation is unreasonable. Either the soil needs potash to make a crop, or it does not. If it does, the application should be from fifteen to forty pounds of actual potash; if it does not, then the two pounds of potash should not be used. The serious objection to such a "complete" fertilizer is that it misleads those who do not study the needs of the soil. More than this, the trifling amount of some one element adds unduly to the price at which the fertilizer is sold. Phosphoric acid is the controlling element in the fertilizers that are being used for wheat in this country. When obtained from bone some nitrogen, usually called ammonia, is present. If the soil needs potash or nitrogen, get a fertilizer carrying more than one per cent of the element. If it needs neither, pay only for phosphoric acid, as the latter is a complete fertilizer for a soil needing only that element.

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CARE OF HORSES' SHOULDERS.—City papers contain frequent accounts of the arrests of teamsters by agents of humane societies for working horses that have sore shoulders. It is hard that a horse should be made to press a bruised shoulder against a collar, as is far too often the case upon some farms. Bruising and galling can often be prevented by a little care at the right time. The hard leather collar is one of the very best if it fits, and the fitting is best done by soaking it over night in water and then drawing it into proper shape on the neck with hames of the right shape. The collar should fit pretty close to the sides of the neck. Wherever it is indented by the shoulder after being softened with water and used half a day it should be pounded with the rounded end of a stick—a heavy auger-handle is good for this purpose—until no undue pressure can come upon the part of the shoulder that made the indentation. If the shoulder is already bruised, soaking and pounding the collar where it strikes the bruise will help very much. The collar should be made to conform to the shape of the shoulder. If there is any pole weight that cannot be remedied in use of grain-drill or harrow, use a zinc pad on top of the neck, to keep the draft at the right point on the shoulder. Bathe the shoulders with cold water noon and night in hot weather, and oak-bark tea is excellent if there is the least tenderness. Grain cannot keep fat on a horse that is at work with sore shoulders. For economy's sake, and especially for right's sake, keep the shoulders of work-horses from being bruised or chafed. DAVID.

THE CORN WEB-WORM

Every season numerous reports are received of young corn being killed out by worms which attack the plants at the base of the stalk. The plants start all right, but soon stop growing, wilt and die. When the roots of such plants are examined, usually from two to six small worms are found snugly housed in a web, which is attached to the roots or stalk about an inch below the surface. The stalks of the corn will be found to be eaten, cavities being gouged out or tunnels made inward, or small stems being even entirely cut off. The lower leaves are also attacked, usually before they have unfolded, so that when unrolled the holes made by the larvae are somewhat regularly placed and enlarge with the growth of the leaves. Plants thus affected are either killed outright or they decay at the point injured and soon rot off. Replanting is thus often made necessary, involving considerable expense, making the crop later and not allowing the newly planted corn to secure as good a start as before, owing to the increasing dryness of the soil; and sometimes even a second partial replanting is necessary.

Such injury is common throughout all of the eastern and central states, and is mostly done by the larva of a small moth, which is commonly known as the corn-root web-worm, or corn crambus, though some other species of the same genus are sometimes partly responsible. These moths are very common on grass-lands during the summer, flying up on all sides as one walks through a field, but are not found without some difficulty, owing to the fact that they cling closely to a blade of grass, with their wings tightly drawn in to the body, so that they are not readily distinguishable from the grass. The palpi, or feelers, project in front of the head very prominently, so that these insects are often known as "snout-moths." The moths make their appearance in the spring, from the middle of May until early June, and lay their eggs in grass-lands about this time. About two hundred yellowish, oval eggs are deposited by each female moth either loosely attached to the stems or blades of grass or dropped carelessly on the surface. From these the larvae hatch in from six to ten days, and at once commence feeding upon the grass. Very soon they construct a loose web on the surface of the soil, or a little below it, adhering to which are numerous particles of gravel and earth, which more or less conceal the web. The larvae are of a dirty white or yellowish color, and are furnished with minute tubercles set with fine bristles. The larvae become full grown in from five to seven weeks, and then form a small cocoon, usually in the end of the tube or web already constructed. In this they transform to the pupal stage, from which the adult moths emerge in from twelve to fifteen days during the month of August. Eggs are laid for another brood in September, the young larvae hatching during that month and October, and becoming partly grown before winter sets in. They hibernate in their silken tubes just below the surface over winter, and commence feeding again in the spring, and transform to pupae and moths in May, as already described.

A number of these worms may occur in grass-land without doing noticeable injury, but when they attack corn, the number of plants being fewer, the injury is more serious. Indeed, corn is rarely injured except when planted on sod-land. For this reason it is always desirable to first put sod-land in some crop which does not belong to the grass family, such as clover, before putting it in corn, in order to prevent injuries by this insect and many others whose usual food is grass, such as cutworms, white grubs, wire-worms, etc. If this is not feasible, it will be desirable to plow the sod up in the fall, so as to prevent egg-laying or to starve out those larvae already hatched; or if plowed very late, the dormant larvae will be exposed to the weather or turned under so deep that they will be unable to get to the surface in the spring. Otherwise the land should be plowed early in the spring and left clear for at least two weeks, thus preventing the moths from depositing their eggs, for they never lay the eggs on bare ground, and if the field can be kept bare before the eggs are laid it will probably be left unmolested. Dr. J. B. Smith has observed that fields treated with mineral fertilizers are much freer from injury than those on which animal manures are used.

E. DWIGHT SANDERSON.

SOME THINGS SOME FARMERS FORGET

One of these things is that no class of people has the farmer's privilege of eating fresh things from the earth. This may not seem at first thought such a blessing, but when we think of all the things which other men must suffer from in the way of wilted vegetables, stale butter, milk and eggs, and adulterations of almost every article of food, the value of living close to Nature's heart begins to be more apparent.

Really to appreciate the blessedness of having everything fresh from the earth one must have lived in some large city. There let him set out of a morning to buy the furnishings for his table for the ensuing day. He visits the city market. Here is displayed all that heart could wish for, probably; but how wilted the articles seem which are displayed upon the counters compared with what he used to have in the country! Perhaps these have been recently watered, to make them appear a little fresher than they otherwise might; but it is easy to see that it is a long way from field to kitchen with most of what he sees. Then the butter! How he does long now for the sweet roll he used to see upon the table at home in the country! No wonder he turns away and roams from place to place, vainly hoping that somewhere he will find a bit of butter something like what he had back at home! If he does succeed in finding it, the recollection of home days in the country comes back more and more vividly with every bit he takes into his mouth. And so it goes all through the list. Why is it nothing tastes as it used to back home?

Then not many of us really appreciate the blessing of pure air. In the hot days of summer, when we are sitting under our shady porches or beneath the leafy trees, or at night sleeping sweetly with open windows and screened from insects, secure from all intrusion, our city neighbors are fairly panting for breath in the struggle to live. The very air is hot; offensive smells come up from the pavements; the buildings do not cool from one day's end to another; the day is a dread and night a terror; if we have once tasted the city during a heated period we thank God ever afterward that we have a home in the country.

Again, I very much doubt whether all of us place a proper estimate upon the pure water we have in the country. See it trickling from spring and fountain! It is as sweet as Nature can distil it. In every drop there is health and strength. We may drink to the full and suffer no ill effects. Now think of the difference with our city neighbors. Every drop of water used must come through miles of pipe. When it reaches them it is hot and tasteless. It almost sickens them instead of refreshing them. Sick or well, this must be their portion. They may try hard to cool their beverages with ice, but the more of that they use the more fearful they are of the effects. Blessed indeed is the pure, clear water of the country.

But most of all the farmer should be thankful for the quiet of his country home. Think of the eternal, distracting thunder of the great city! All day long and far into the night it sends up its confusing roar. Good thought is almost impossible. No time for peaceful reading or reflection. Rush, push, hurry, crowd, always and forever! Now turn to the country home. How still the day! Night comes down like a benediction. We put away care and draw around our tables, to read and think of all the world has been doing and to plan for the future. The strength of the country lies largely in its opportunities for careful meditation. If it has any better men than the city it is because in the country we are nearer to the fountains of rest and thought.

But think of the scenes of beauty which greet the farmer upon every hand. Mountain, tree and flower everywhere. The city man longs for them, but cannot possess them. They are blessings peculiar to the country. It is no wonder that almost every man, no matter what his business in the city may be, dreams of a day when he can leave its distraction and finish his life amid the beauties of the country. It is a hopeful sign that this is so and that men are more and more turning back to their old homes in the country. Steam-cars and electricity are helping them to do this. The country is to-day the Mecca toward which men universally turn.

I wish I might say something which would help every one now on the farm to think more and more about the blessings he has and less about the hard places. Every business has its hard features. Not always do we know just what these are, and the reason we long so for the town is because we dream only of its pleasures, thinking little of the discomforts or the positive trials which meet those who live there. Perhaps I may be a better witness upon this point from the fact that I have thoroughly tested both city and country life. I know all about them both, and I have come back to the farm firmly assured that here is to be found the truest comfort, opportunity for doing the greatest good and more solid joy than can possibly be the lot of the dweller in the city. Friends, count your blessings! EDGAR L. VINCENT.

NOTES FROM GARDEN AND FIELD

Some Novelties.—Novelties of real striking value have been rather scarce in recent years. Our seedsmen seem to have hunted the whole world over for years, and picked up everything that seemed of promise, and much that was not, until there are few things left that are not yet explored or introduced at some time or other. Japan and China have been found by our seedsmen and nurserymen to be especially prolific fields for the discovery of new vegetables and fruits. A great many of these Oriental novelties have been introduced, but there are few among them that are of lasting value. A few years ago I grew every Chinese vegetable offered by one of the seed-houses making a specialty of them. There was not one among them that I cared to grow the second time. And so it is also with the Japanese vegetables. The soy-bean is about the only thing from that quarter that may possess lasting value for us. I have grown it off and on for the last twenty-five years, the first seed of it having been sent me by my father in Germany long before it was ever spoken of here, so far as I know. I again have a few rows of it in my garden, and it is grown mostly as a coffee substitute. The bean is also well liked, even in the raw and unground state, by farm-animals.

* * *

The "New York Farmer" tells of a new vegetable from Java. It says: "California gardeners are experimenting with the mougri (mongri?), a novelty from Java. The plant attains the height of about twenty inches. A peculiarity of this plant is that the pods are sometimes three feet in length. The pods are quite solid, tender and crisp. Before they are full grown they may be eaten the same as radishes. They make excellent pickles and are good for salads. The plant might also be termed the bush-asparagus. If the pods are boiled while they are yet in the growing state they are most delicious, greatly resembling asparagus in flavor." This novelty was introduced a few years ago by a Western seed-house, and I am informed by a California gardener that he tried it at the time and thought it was no more nor less than a common radish gone to seed, and the biggest swindle of the century. I have never yet tried radish-pods as a culinary article, but I think that they may be made quite palatable if cooked in a skilful way while young and tender.

* * *

A New Cabbage.—I have repeatedly spoken of the Eureka cabbage as a new and very promising one for an early sort. It comes into the market with the Jersey Wakefield, and being a flat sort and a remarkably reliable and close header it seems to find much favor with buyers. I know of no other sort that can successfully compete with the old Wakefield as an early market cabbage. Last spring I was told of a new early cabbage named "Alpha." I planted a few, and think they are identical with Eureka. I shall plant Wakefield and Eureka hereafter, "'alf and 'alf."

* * *

The Blue-husk Tomato.—I have a number of plants of the "blue-husk tomato" in my garden, and at first treated them as a novelty and something very choice. I think that now I would be satisfied if I had only a single plant, and would not particularly grieve were I to lose that, too. My curiosity, or thirst for knowledge—call it what you may—is fully satisfied. The plant itself is coarse and weedy-looking and perhaps as interesting as the yellow-husk tomato. The purplish or bluish fruit is variable in size, much larger than the yellow kind, and grows in a rather more tightly fitting husk. Like the other, it drops to the ground on reaching maturity. The yellow-husk, or cherry, tomato has decided value as a culinary article, no doubt. Many persons are quite fond of its gooseberry-like flavor when cooked in sugar. It does not suit my own individual taste so well. The blue-husk tomato does not seem to possess that sweetish, and to me somewhat sickish, taste, and as it appears to be quite solid in flesh when cut open I believe it will prove to be good material in the hands of a skilful cook. I will try it for pickles.

* * *

New Lima-beans.—Among the pole-Limas Henderson's new "Early Leviathan" seems to be valuable on account of its earliness. I have heretofore given the preference for my main crop to Extra Early Jersey and King of the Garden. The new Leviathan seems to have just as many good points as either of them, besides being some days earlier. The New Wonder bush-Lima is just about as early, but the pods are close to the ground and liable to rot, which seems to be the case with all large bush-Limas with which I am acquainted. I also have the new Willow Leaf bush-Lima, which is a bush form of Burpee's older Willow Leaf bush-Lima, and with the exception of the foliage about the same thing as Henderson's bush-Lima, or Sieva, a small bean in abundant and closely filled pods. For my own table, as well as for market, I prefer the large Limas to these Sievas, even if they are earlier. Strange to say, however, the Willow Leaf bush-Lima this year is not as early as the large bush or even the pole-Limas. And then what a lot of pods filled with great fat beans we can gather from our pole-Limas all season long! The oftener I compare the two types of beans the more I take to the pole form, of which some years ago I thought so much.

* * *

The Pickling-onions.—I left my Barletta onions too long in the ground this year after they were fit for pulling. The frequent rains at this time started them into a new growth and forced a most luxuriant weed growth. The new factories that have been put up in the vicinity of Niagara Falls, close to me, are taking all the available labor, and many younger and older men who heretofore depended on work on the farms around here are now working in the factories, so that it is almost impossible to find good farm help. I have had to let the weeds have their own way to a greater extent than ever before and more than I relish. I do all I can and have to let the rest go. So the pickling-onions were neglected. Now they are taken up, and I will try to cure them on the greenhouse benches, with what results remains to be seen.

* * *

Yellow Leaves.—S. S., of Shiner, Texas, says that in one spot of his garden the leaves of whatever crops he plants grow curly and yellow. Even the trees show yellow leaves. What should be applied to make the land right for healthy growth? Perhaps some of our scientific friends can tell from the description. I cannot. But if it were my case I would first of all examine that particular spot, to see whether it is properly drained, and if not, remedy this defect. Also get a piece of blue litmus-paper—any drug-store keeps it—place a little piece against a fresh surface of the soil and see how it acts. If the paper turns to a pink or red color you have the proof that the soil is sour; and the way to remove the acidity is by applying a good dressing of lime. If the paper retains its blue color I would dip a strip of it in weak vinegar, which will give it a pinkish color. Then let it get dry and make another soil test. If the pink paper turns blue again you have the proof that the soil of that particular spot has an excess of alkali. This may have to be neutralized. You may be able to do that by growing any green crop—clover, rye, peas, etc.—and plowing them under when in full growth, and if possible during hot weather. You may also forward a sample of that soil to the experiment station of your state and give them a description of how that soil acts. In fact, you should do that. The experiment station will gladly help you and try to find a solution of the difficulty for you. It is their place and duty to do so, and they like to have a chance to help you out. People all over the country have no reason to complain that the experiment stations are not of greater help to them so long as there is a general disinclination to ask them for help.

T. Greiner.

ORCHARD AND SMALL FRUITS

CONDUCTED BY SAMUEL B. GREEN

INQUIRIES ANSWERED

Moving an Orchard.—T. G. G., Gibson's, N. C., writes that he has an orchard of seventy-five peach-trees and seventy-five apple-trees, planted in the spring of 1897, that he desires to move because they are too far from the house, and inquires, first, what season would be best for moving them; second, how much pruning of tops and roots will be necessary. In the climate of North Carolina the trees should be moved either in the fall after the season's growth has ceased and the leaves have fallen, or in early spring as soon as the ground is in good condition for working. The trees should be taken up carefully, to retain as large a portion of the roots as possible, and without allowing to be long out of the ground. Plant them in holes sufficiently large to receive the roots in natural position, working good soil among them and making it very firm, and afterward applying a mulch over the surface. If the work is well done there is very little danger of losing a single tree. Second, the necessary pruning consists in smoothing off the bruised ends of the roots with a sharp knife, and cutting the season's growth back from one half to three fourths, according to the loss of roots. If the roots are dipped into a puddle of thin mud at the time of planting soil adheres to them better and growth will start sooner.

A Cherry-tree That Never Bloomed or Bore Fruit.—J. D., Lincoln, Ill., has a cherry-tree, supposed to be Black Tartarian, planted out six years next spring, that has never borne fruit nor blossomed, and asks for advice about how to treat it to bring it into bearing. He says it is a beautiful tree, with limbs growing upright. First, trees with upright-growing branches do not usually commence bearing as young as those with spreading or horizontal branches. Second, the soil and location have considerable influence upon the age at which a tree comes into bearing. If this tree is growing in the overrich soil which is found in many parts of Illinois, where the wood growth becomes so gross that fruit-buds are not formed, much fruit cannot be expected before it reaches the age of eight or ten years. In that case the bearing would be encouraged by root-pruning, and probably all that would be necessary would be to insert a sharp spade full length of the blade in a circle eight feet in diameter around the tree next spring, to start its bearing the next season. If that failed I would advise budding it to some other variety.

A Barren Plum-tree.—H. A. C., Glendale, Pa., has an Abundance plum-tree that blossoms profusely, but does not bear fruit, and desires a remedy for it. He also inquires if coal-tar put around the trunks of trees injures them, and if so, if there is a remedy.

Reply:—If there are no other plum-trees near by that bloom at about the same time as his Abundance, the failure to fruit may arise from a failure of pollenization or fertilization of the blossoms. If that is the cause, the remedy would be to plant some other plum-trees near by or insert a graft or bud in a branch of this one. A failure to fruit is often the result of unfavorable weather conditions at the time of blossoming, or of a hard frost after circulation has started and prior to the opening of the buds; also from fungous diseases and lack of vigor of the trees from poverty of the soil or lack of cultivation, and not infrequently from stinging from curculio. Weather conditions are of course beyond control; vigor may be restored by cultivation and the application of manures. For the curculio, spraying with Paris green, one ounce to thirteen gallons of water, as soon as the blossoms fall will prove beneficial. If the tree is troubled with fungous diseases, spray once with sulphate of copper solution, one pound of the sulphate to twenty-five gallons of water, once just as the buds begin to swell, and again with a sixty-gallon formula of Bordeaux mixture after the foliage is out and the blossoms have fallen. The application of coal-tar to the trunks of trees is not advisable. In some cases no immediate injurious effects are discovered, while in others it causes the premature death to the trees. It is a dangerous material to use on living trees, and if it has been applied I would advise scraping it off and washing with soap-suds and wrapping the trunks with burlap cloth for a time.

Pear-blight.—A. B. C. requests a remedy for, or preventive of, pear-blight. Pear-blight has been known in this country for over a century, and probably has been studied and experimented with for remedies more than any other disease to which fruit-trees are subject, and yet no great advance has been made toward finding a reliable cure for it. It is a bacterial disease that propagates with great rapidity when weather or other conditions are favorable for it—that is, in the warm and moist weather of the early summer—and the germs are carried from one tree to another through the air or by insects and find lodgment on the tender parts of growing branches and entrance into the sap-cells. It is first discovered by the dying of the leaves and branches. As it works in the sap, spraying does not seem to reach the germs or accomplish any good further than to keep unaffected trees in better health, and therefore less liable to become inoculated with the bacterial germs. After it shows in the foliage or branches all that can be done is to cut away the blighted portions below where they are affected and burn them; and it is uncertain about its doing more good than injury, because of the danger of transferring the disease to the healthy parts below on the saw or knife unless they are disinfected between the time each cut is made and the next one. Much can be done in the autumn toward preventing the recurrence of the disease in the following spring. After the growth of the season has ended, every diseased twig or branch should be cut out and burned, so that in the spring, when succulent growth begins again, there will be few places in which insects may come in contact with the germs and transport them to other places. If this is thoroughly done and continued by all in a neighborhood I think that the disease could finally be stamped out.

Soils for and Time to Set Strawberries.—R. C. C., Edelstine, Ill. While very good strawberries can be raised upon any soil that will produce corn or potatoes, it is a generally admitted fact that the very best and the one adapted to the successful growing of the greatest number of varieties is a deep, sandy loam that is moist, but not wet, in its natural state. On such a soil properly prepared very much less effort will be required to insure good crops of fruit. New land—that is, land that has not been used for strawberries within four or five years—and old pasture-lands and clover meadows not recently disturbed by plowing are better for this fruit than old ground continuously long cultivated in plant and hoed crops, even if the fertility has been maintained by liberal manuring. New ground or any grass-land should be broken up and well subdued by raising on it a hoed crop of some kind the season before being planted to strawberries, and it would be better if plowed again late in the fall, after being manured according to its needs, and left in a rough condition through the winter. If the soil is inclined to be a stiff clay, fall plowing and the action of the winter frosts are very important. Hedge-rows and newly cleared groves make excellent locations for strawberry-beds, and if the soil is deep and rich will bring good crops without any, or but little, manuring. The best time for setting strawberry-plants is in spring, and usually during the first half of May; at this season growth begins at once and the plants become well established to endure the heat and drought of later in the season. Whether the ground should be plowed again in the spring immediately before planting depends largely upon how compact it has become during the winter. Ordinarily working the surface up fine with a spring-tooth harrow is better than spring plowing.

Blight.—J. W. C., Hillsboro, N. C., is anxious to find a remedy for blight and insects on fruit-trees, and addresses the following inquiry to a few professional horticulturists: "If the washing or soaking of seed-wheat in bluestone-water just before sowing will keep smut out of wheat, why not put a pound each of bluestone, copperas and sulphur under a fruit-tree that will bear ten dollars' worth of good fruit in one year?" Thousands of our pomologists annually suffer great losses through the depredations of insects and the ravages of blight, and all would be glad to find a safe and sure remedy. It is my opinion that the burying of bluestone, copperas and sulphur under a fruit-tree would do no good whatever, and might result in considerable injury. Blight, like smut, is a fungous organism, and propagated by living spores. The immersion of the seed-wheat in bluestone-water destroys these spores, which if not killed would when conditions are favorable find lodgment upon the growing wheat and cause an increase of the smut. None of the virtues of the wash enter into the roots or composition of the growing grain, and if the wash was strong enough or the soaking continued long enough it would destroy the germ of the wheat as well as the smut. My own experience and observation is that not any of these ingredients will be taken up by the roots and enter into the supercirculation or structure of the tree to an extent that will exert any influence toward preventing blight or the ravages of insects. It is now well understood that Bordeaux mixture, which is a solution of bluestone, lime and water, kills the spores of fungous diseases by direct contact when applied at the proper time as a spray; also that a solution or wash of copperas is often beneficial, and that flower of sulphur is an antidote for mildew. I believe that they do, in a degree, check the spread of blight, and if they were universally applied would in time eradicate the disease; but I do not believe that their application to the soil or under the roots or by inoculation into the wood or circulation would prove of any benefit whatever. Spraying with Paris green is the best remedy for biting insects, and kerosene emulsion, tobacco-water or whale-oil soap-suds for sucking insects, such as aphis, scales, etc.; but only those are destroyed by direct contact.

HOW CHINESE FARMER MARKETS CROPS

[CONTINUED FROM FIRST PAGE]

reasonable rate, thus compelling the dealers to sell cheaper. This is the theory, and it looks well on paper. It is in accordance with the Confucian idea of the paternal relation of government and people, which the wily mandarin talks of so smoothly, but practises so seldom. However, the difficulty of securing honest management and the smallness of the quantities stored compared with the remarkable density of populatiou make these public granaries of little real service for regulating the price of graiu in times of scarcity.

CHINESE GOD IN TEMPLE ON BUBBLING-WELL ROAD

The controlling factor here, as everywhere, is the law of supply and demand. But here again the absence of cheap trausportatiou facilities, except upon watercourses, interferes with the supply to an extent almost incompreheusible to this generation of Americans. Only a few weeks ago rice was selling in the adjoining county of Daih-hu for four dollars a man-load of one hundred and thirty-three pouuds, while here in Hinghua, fifty miles away, a load brought only half that sum. The reason is not far to seek. The sole power of transportation between these two places is human strength, the only road a mountain foot-path. It might tend to reconcile the Kausas farmer to the merciless oppressions of the soulless railroad corporation that divides with him the profits of his toil if he had to

SLICING AND DRYING SWEET-POTATOES

carry one crop to the nearest market upon his own shoulders. Doubtless it is this difficulty of reachiug the market that makes the farmers in the sparsely settled regions of the interior indifferent about cultivating more land than is necessary to provide food for their own families. Even in a region so densely populated as these Hinghua valleys and coast, back twenty-five miles into the mountains, there is much unused ground, and further inland the population is still more sparse, while large areas are uncultivated. The chief reasou for this is lack of transportation to and from markets. When China builds railways and wagon-roads in every direction these interior waste places will fill up with industrious inhabitants. Densely populated as China is, the country can bear a much larger population by supplying the cultivators of the soil with modern facilities for transport.

INOCULATION OF THE SOIL

It is only within the last twenty years that the reason why leguminous crops improve the soil was discovered and proved. The enriching effect is due mainly to the presence of bacteria (singular, bacterium), that cause the wart-like lumps on the roots of the plants, and which change the nitrogen gas of the air into a form that the plauts can utilize. In soil where none of these tiny creatures exist, and in which but little nitrogenous plant-food is found, the growth of legumes is very small; but in soil where they are plentiful, even if it contains little or no nitrogenous matter, the growth is many times greater.

In all agricultural soils where leguminous plants have been grown for any length of time these creatures abound, but each kind of legume demands a different variety of bacteria to attain its best development. For instance, the bacterium working on crimson clover might be fouud on other clovers, but not ou peas or beans. Some soils, therefore, that produce good crops of clover or peas may fail utterly to produce other legumes, such as vetches or lentils, merely because the proper bacterium is not in the soil.

After thorough investigation of the subject, including countless experiments, German scientists have produced, by scientific methods, a substance which they call nitragin, that contains millions of the bacteria. This nitragin is mixed with the seed, and planted, an operation that inoculates the soil with the bacteria. When treated and untreated seed are sown in land deprived of the bacteria the former grow luxuriantly, while the latter do not; and this has been proved not only in the laboratory, but in whole fields, in mauy cases there being a gain of one thousand per cent or even more due to inoculation.

So wonderful is the invention, if such it may be called, that it seems possible unscrupulous men may make use of it to deceive the farming public, a result that will probably be the easier since the discovery is of very recent date. The New York agents of the German company now manufacturing the substance are, of course, not included in this remark. The farmer, in order to protect himself, should bear in mind that if he or his neighbor grows clover, peas, vetches, or any other legume, he need not inoculate his soil unless he finds that it will not produce good crops of the particular legume he wishes to grow upon it. If it fails to produce a crop, inoculation may remedy the defect, but the grower should make haste slowly. The cost of applying (two to four dollars an acre) would be but a slight and a justifiable expense were there no risk. But since, in coming from Germany, the stuff may heat and fermeut, since it may be too old or may fail to work from some other unknown cause, and since the busy farmer seldom has time to take the care necessary in manipulating it, he had better purchase only a little and apply it to a small area. If his experiment proves a failure, little will have been lost; if a success, then the soil of the plot may be used to inoculate wider areas. When failure meets every effort to grow some legume that has never been grown in a locality, the best plan —better than purchasing nitragin—is to find some place where it has succeeded, and to obtain a bushel or so of the soil upon which it has grown, and if this contains roots of the particular plant, so much the better. This earth should be spread with his seed in a small plot, the soil of which may be used the following season—if it has produced a fairly good crop—to inoculate a field; one ton should be sufficient for an acre. Once inoculated no further inoculation should be necessary, provided the crop be grown upon the field occasionally. Of course, planting other crops exclusively may starve out the bacteria, since they are as dependent upon the legume as the legume is dependent upon them.

Inoculation of other fields will be unnecessary, since mud and dust carried by animals and even by insects will soon spread the bacteria all over a farm, and wind and water will carry them all over the neighborhood, so that in a short time the legume that at first failed because of the lack of bacteria will then yield profitable crops.

These bacteria are in nowise harmful under any conditions of the fields. They do not menace health of man or beast.

M. G. KAINS.

CORRESPONDENCE

FROM CALIFORNIA.—A large uumber of FARM AND FIRESIDE subscribers have asked me about chicken-farms in California, wanting to know how many chickens could be kept on a farm profitably, and the price of land, etc. One thousand hens are about as many as can well be taken care of, and they must be kept on alfalfa-lands for a profit, as this is the only kind of feed that will grow the year round. It is fully one third of the feed for chickens. Good alfalfa-land that needs no irrigating can be had in five and ten acre lots at from $100 to $125 an acre, without improvements. This price is very low for this kind of land, as it is almost all out of the market. Irrigated land is not good for chickens, as it is too wet and causes sickness among the chickens. Wheat-land is no good, as there is green feed only for a short time in the spring. Some turkey-raisers have as many as three thousand turkeys each season. Eggs and chickens are a good price the year round. Car-loads of both are imported.

G. T. J.

Nicolans, Cal.

FROM MONTANA.—Some time ago I had a short article in the FARM AND FIRESIDE in regard to the Swift Current Mining Camp, Montana, and since then have received letters from readers asking questions about the new copper-camp, and the future prospects. Let me say that the prospects for a large camp could not be more encouraging. We have two restaurants, two lodging-houses, about eighty log cabins, as many tents, a sawmill, a concentrator and about three hundred people. A store is being erected at this writing; three more concentrators will be in operation by fall, and a smelter will be built in the spring. Two railroads will reach the place by fall. Practical miners are getting $4 a day, and $3 a day is paid for common labor. A miners' hospital is being erected, and a resident physician is expected soon, making it convenient for all concerned. There is plenty of work for sober quartz-miners and carpenters. I honestly believe that this is going to be one of the greatest copper-camps in the United States, if not in the world. The leads here are all well defined, and can be traced for a distance of from fifteen to forty miles. We have four mines running full blast, all turning out high-grade copper-ore. The nearest railroad station is Blackfoot, Montana, on the G. N. railroad, a distance of fifty miles from the camp. There are two stages running between the camp and the station. The fare from the station to the camp is $6. The principal drawback here is that the camp is on a forest reserve, and the United States government will not issue permits for any kind of business. The "forest reserve" racket has caused a great deal of trouble for the poor people here.

C. E. M.

Browning, Mont.

McCORMICK WINS AT PARIS.

The McCormick Harvesting Machine Company of Chicago, has been awarded the Grand Prize on Harvesting Machines at the Paris Exposition. This is the highest award.

The McCormick Company also received the highest award, a gold medal, on binder twine, for the superior quality of its product. Special twine machinery from the celebrated McCormick twine mill was exhibited to the jury and awarded a medal.

The McCormicks have received the largest number of awards, as well as the highest awards made to any American exhibitor. In addition to the Grand Prize on machines and Gold Medal on twine they have received two medals in the department of metallurgy for superiority in forming metals into special parts for machines; in the department of machinery a medal for factory machinery, and also silver and bronze medals in other classes, six medals in all, besides the Grand Prize.

The International juries of the Exposition have recognized the great revolution wrought by McCormick machines and this large number of awards is a great triumph for America.

In addition to winning these awards, the Gold Medal and 200 francs, the single highest award for binders, was won easily by the McCormick Binder at the field trial at Coulommiers on July 19, against all comers. This is the greatest and most important trial held in France during the Exposition year

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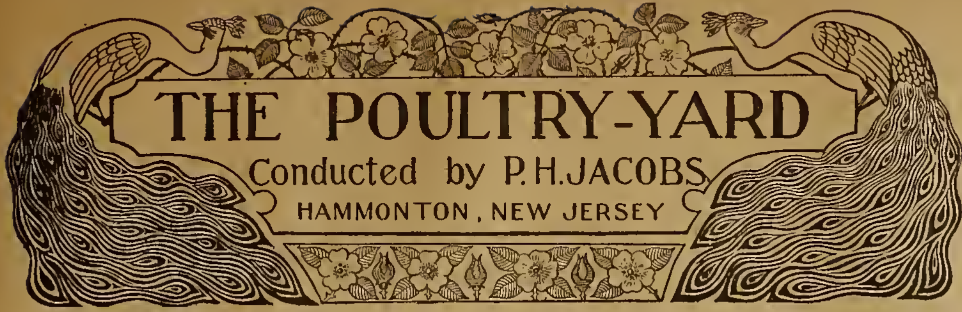

NITROGENOUS FOOD

The principal ingredient in blood is nitrogen, which is also the most essential substance in albumen, or the white of an egg. Dried blood contains about fourteen per cent of nitrogen, while green bone may contain but one or two per cent, as the bone is mostly phosphate of lime. But bone varies. If it has adhering meat it will contain more nitrogen than if cleaned. Blood cannot entirely take the place of bone, as the bone contains phosphate. The dried blood will answer as a substitute for fresh blood, but no kind of dry food, whether animal or vegetable, is equal to that which is fresh. Experiments that have been made show very conclusively that the cheapest and best foods are those that induce the hens to lay, and that reduced bone and animal-meal are more valuable, considering the results therefrom, than has been supposed, although such foods have ranked high as egg-producing materials. As less than one third the quantity of animal-meal is required compared with corn, the cost is even less than for corn, with the difference that corn is not sufficient, while animal-meal is more complete. Bone can be had for a very small sum if one is near a butchering-establishment, and should be procured wheuever possible, the bone, however, to be cut fine with a bone-cutter. Corn may be allowed, also, but the point which is to be impressed is the fact that the animal foods have given more eggs in the tests made than grain, and the cost has been much less in proportion to results obtained. It is the results which cheapen or enhance the value of a food. No food is costly if it repays one for its use.

DIFFICULTIES WITH LARGE FLOCKS

In a moderate way and properly managed poultry can be made to pay a good profit on the cost of keeping, and contribute its share to the income of the little farm, but managed as a business poultry is somewhat uncertain; one person in a hundred, possibly not more than one in a thousand, may succeed, as the risks seem to increase in proportion to the numbers. One must begin at the bottom and gradually increase the flocks. No matter how much room may be allowed, how good the quarters or how much feed is required, the strong will overpower the weak, and in the struggle for existence disease steps in and sweeps away the surplus to a smaller number. Large numbers cannot be counted, the eggs cannot all be collected, the birds and beasts of prey cannot be prevented from committing depredations, and the wants of each individual of the flock cannot be supplied, for it is lost in the whole, and cannot be selected for proper attention and care. Confusion reigns in the flock and among the attendants. Order and system being indispensable, the fowls fail to prove profitable, being a feathered mob of miserable, struggling creatures. Provide the food as we will, the strong and active secure more than they desire, being stimulated to appropriate above their share through the spirit of conquest and competition, while the less favored ones will barely survive in the midst of a liberal allowance for all.

EXPOSURE AND DISEASE

The action of severe cold on the system produces many disorders. Our latitude is subject to sudden and sharp changes, every one of which tells in a more or less degree on farm stock and poultry. For these chauges we must prepare. Colds settle in various parts of the body, and are the foundation of roup, canker, catarrh, leg-weakness and rheumatism. If the fowls are strong and healthy they will withstand many of these changes, and if well fed and guarded from the elements will pass over the critical period with small loss. No one possessed of valuable fowls would risk their safety by exposure to the vicissitudes of the weather. Leg-weakness comes directly from exposure to severe cold or continued dampness. There is seldom any remedy that touches this weakness when once thoroughly established. It more frequently occurs with fowls that have not come to maturity before the cold weather sets in. The growth is at once retarded, the fowl dwarfed, and the muscles and tendons hardened. The fowl is then a sure victim for roup. Sometimes, if the weather is dry and warm, or the fowls are allowed a dry, sunny cover under glass during the day, it may be conquered. They must be fed on strong food, such as wheat, with animal and vegetable materials, and such tonics as tincture of iron administered in the drinkiug-water.

CONSTRUCTING THE POULTRY-HOUSE

All work in the construction of a poultry-house should be done before winter, so as to have the fowls in comfortable quarters before the fall season is gone. In building the house, however, make it of the square form, as then the largest area of space can be secured for the least cost. The house should not contain too many fowls, as it will be an advantage to allow plenty of room for scratching in winter when it is stormy. If the fowls are crowded there will not be as many eggs obtained from a large number as from a flock that is more comfortably kept. The arrangement of the house should be to have nests, roosts, platforms, etc., removable, iu order to take them outside to be cleaned. Have plenty of light, as fowls do not like to be in a dark house, and will stand outside in the storm rather than remain in a house in which but little sunlight enters. If tarred paper is used, first fasten the paper down well—the two-ply paper is generally used—then give it a good coating of paint, well put on and sanded. In six months put on another coat of the paint (which comes with the paper). At the end of twelve months apply one more coat. In five years give another, and the next in ten years, for the roof will then last you as long as you live or longer. The paint costs but little. In other words, give the roof a little attention the first six months and the rest is easy.

A CORN-STALK SHELTER

Every farmer has a lot of corn-stalks that can be put to no use but for trampling in the barn-yard. The hens are very fond of a low, open shed facing the southeast. The cheapest thing of the kind can be made of corn-stalks by simply standing them up against a few rails and laying some of them on the top for a roof. If laid thickly and the roof made steep they will turn water, especially if covered with a few inches of straw, with some stalks laid on the straw to hold it in place. A corn-stalk shed will not only be warm and comfortable, but plenty of room can be given the hens, so as to really have a covered yard instead of a shed; and if they are liberally fed and otherwise provided for they will lay in cold weather enough eggs to not only pay for the stalks and labor, but give a profit as well. Early in the spring, when the shed will not be of further use, it can be knocked down and added to the material of the barn-yard, which will enable the farmer to utilize the stalks before converting them into manure. The erecting of a corn-stalk shed requires but a few hours, the material really costs nothing, and the convenience to the hens will be such as to make them profitable during the coldest weather.

CHARACTERISTICS OF FOOD

If the habits and characteristics of the several breeds are carefully observed the poultryman will soon be able to manage for the best results. To learn the proper amount of food a hen will eat, experiments made with nearly all the breeds showed that the food varied from four to seven ounces a day, and was composed of grain, grass, clover, potatoes, etc. One hundred pounds of wheat contain about one ounce of lime, but clover (in one hundred pounds of hay) contains nearly three pounds of lime, while lucerne contains in every one hundred pounds about four and three fourths pounds of lime. Turnips contain nearly thirty times as much lime as wheat-grains, though containing more water, while its leaves contain even a larger quantity. Here we can at once learn the cause of hens being in poor laying condition when fed on wheat instead of on a liberal supply of green food, and poultrymen can at once notice that the recommendation to feed clover plentifully and they will get eggs is borne out by the results of scientific investigation.

OLD HENS AND MOLTING

There are objections to the keeping of hens that are over two or three years old, and there is only one point against them, which is that each year a hen will molt later in the season, and the older the hen the later in the season will she molt. When winter comes it many times catches her before she is fully covered with feathers; as a result she will be set back and suffer from the cold, and perhaps not commence laying before spring. A little judicious treatment with nitrogenous food not only benefits the fowls, but shortens the period of molting, and in addition to that the growth of plumage is stronger and heavier, the fowls being then better able to stand the cold winter. The appearance of the fowls is also improved. The feathers look better and the fowls take on fat and meet the cold weather of winter with a vigorous constitution and in good health, which otherwise might not be the case.

SITTERS AND NON-SITTERS

Where the main object in keeping hens is to furnish a supply of eggs, the inveterate sitters, such as Brahmas, Cochins, Plymouth Rocks and Langshans, should be made to work for nearly all they receive. If eggs only are wanted, it is well to have the non-sitting varieties, which saves a great deal of labor. Far more people prefer the non-sitters at the present time than formerly. Leghorns, Minorcas, Hamburgs and Houdans are kept very largely, as they are non-sitters. There is one difficulty or drawback with the non-sitters, which is that they lay white eggs, which are not preferred in some markets; but in other places the white eggs are accepted as readily as are those that are dark.

LARGE EGGS

As egg-producers the Houdan and Black Spanish claim a place among the first. They are non-sitters, and while equaling in the number of eggs those of the Leghorns and Hamburgs, they excel them in weight, as two of their large white eggs sometimes turn the scale with three Leghorn or Hamburg eggs. The chickens are healthy and fast growers. Both old and young fowls are very meaty, tender and fine in flavor, and valuable as table-fowls.

INQUIRIES ANSWERED

Leg-weakness.—H. D. J., Gaston, Oregon, writes: "What is the cause of a chicken losing the use of its legs, being otherwise in perfect health? Could it be paralysis?"

Reply:—If it is a young cockerel, the cause may be rapid growth from heavy feeding, the bird being forced. It is not necessarily permanent, as such birds usually recover if the food is reduced.

The Breed for a Town Lot.—W. D. C., Toronto Junction, Ontario, writes: "Which breed of fowls would you recommend for a family to keep in town, eggs being the object?"

Reply:—The Brahmas are excellent, as they cannot fly over an ordinary fence, and are hardy and contented under confinement. They also rank high as layers and are suitable for a cold climate.

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QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Bean-weevil.—E. A. M., Camp Point, Ill., writes: "After losing all my bean-seeds last year from the weevil I inquired among my neighbors for a remedy, and found one 'tried and true.' When beans or peas are ripe enough for seed shell them and tie in a coarse bag, and either plunge them in kerosene or pour the oil on the bag until it drips through the bottom. Then dry them and they will be firm and perfect in the spring."

Time to Cut Timber for Fence-posts.—M. A. B., Warsaw, N. Y., writes: "A few weeks ago I saw an article in one of our leading agricultural papers to the effect that timber for fence-posts should be cut in February. Now, that is a great mistake. I know from actual experience in cutting in August and February that if cut in August it will last twice as long as if cut in February. Cut down the trees and let them lie till the leaves are dry before cutting and splitting into posts. That can be done just as well in late fall or winter, when there is more leisure. I have one swamp white oak bar-post still left in use of a lot that were on my farm when I moved here, in 1844. So I want to repeat, for the benefit of young farmers who want to keep their farms, that timber for any purpose to last should be cut in August."

Millet Hay.—C. A. P., Caldwell, N. J. In his excellent work, "Grasses and Forage Crops," Prof. Shaw says: "Millet makes excellent winter fodder for horses, milk-cows and other cattle, also for sheep, if cut and fed at the right stage and when at the same time it is properly cured. But if allowed to become overripe it soon gets woody and consequently unpalatable, and when dried too much in the sun while being cured its feeding value is greatly impaired. The seed furnishes good food for all kinds of live stock if judiciously fed, but when the crop is allowed to ripen the feeding value of the straw or fodder portion is very much lessened. The idea has gained currency that if millet is fed freely and continuously for a long period impaired digestion may arise in consequence, and that there is danger of the urinary organs being affected adversely. But these results are not likely to follow when the millet has been properly harvested, and when at the same time it is only fed as one factor of the food ration."

VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

Lung Disease.—P. H., Miller, S. D. The lung disease of which your cow died was most likely pulmonary tuberculosis, a disease which is not only infectious and easily transmitted to other cattle and to human beings, but also a disease on which treatment has but little effect, if any.

Poll-evil.—N. P. Schroyer, Kan. What you describe appears to be a so-called poll-evil, or, in other words, a fistula of the poll. Since the case is already of five years' standing, and since a surgical operation will have to be performed to effect a healing, I most decidedly advise you, if you desire to have the fistula brought to a permanent healing, to have your horse treated by a competent veterinarian.

A Scar On the Hip of a Calf.—W. H., Brandon, Vt. Be satisfied that the big sore on the hip of your calf has healed nicely, and leave the scar alone. The latter will not grow, and when the calf has obtained full growth it will look much smaller than it does now. A scar, it is true, can be excised, but after that has been done and the minutest care is not bestowed upon the process of healing the second scar may prove to be worse than the first. Lost skin will never be reproduced, and a scar can only be made smaller by excision if the skin can be drawn over the same and the margin can be kept close enough together to cover the same, which is hardly possible on the hip.

Garget.—D. S., Holloway, Mich. Milk your cow oftener, more times a day, and each time in a thorough manner, and see to it, if she is in a stable, that she has a clean floor and clean bedding, or if she is kept outdoors, that she keeps out of mud and manure.

Water a Dirty-brown Color.—C. C. P., New Hampshire, Ohio. That your mare passes water of a dirty-brown color, and cannot hold it very long, the only symptom you see fit to communicate, does not enable anybody to make a diagnosis of her disease or ailment. Call on a veterinarian and let him examine your mare, and particularly her sexual and urinary organs.

May Be Anthrax.—J. A. S., Pukwana, S. D. Before you ask again for an answer by mail please read the heading of the veterinary column. The disease, of which you gave a few superficial symptoms, may be anthrax, one of the most infectious and fatal diseases known. It it is anthrax, you will find the blood black, tar-like and non-coagulated, and if subjected to a microscopic examination, teeming with anthrax bacilli. If you have a state veterinarian in South Dakota it will be within his province or duty to make a thorough investigation and to devise means of prevention.

Probably Cowpox.—F. A. S., Palmyra, N. Y. What you describe looks a good deal like a case of cowpox, a disease which is not at all dangerous and does not require any treatment. It will, however, not be advisable to use the milk raw, and some care must be had not to disturb the pustules any more than absolutely necessary when milking. As the disease only lasts about three weeks it may have disappeared almost entirely when this reaches you. It will spread slowly from one animal to another, therefore if you have more cows than one the others will also be apt to get it.

Vertigo.—C. A. S. T., Lebanon Springs, N. Y. Your horse had an attack of vertigo, and possibly the sudden and radical change of food—from old hay to wilted grass—may have had something to do with the bringing on of the attack. Blind staggers is entirely different and does not present such short attacks and such a sudden recovery. I advise you, however, to be careful and on the lookout, particularly if you have the horse on the road, because another attack may make its appearance when you least expect it. If it should happen, you may shorten the same by immediately blindfolding the horse, and by doing so you may succeed in keeping him on his feet.

Difficulty of Breathing.—A. M. H., Kingman, Ind. It may be that the accelerated respiration of your draft-horse in this present extraordinary hot weather is only due to the fact that cold-blooded horses have comparatively smaller lungs and a more sluggish circulation than hot-blooded horses, and if this is the case the respiration will become normal again when colder weather sets in. Besides this, cold-blooded horses as a rule get away with large quantities of food, fill up the stomach and intestines, and thus the space in the chest, not any too large compared with the size and bulk of the animal, is crowded in upon, which of course necessitates accelerated respiration. Chronic difficulty of breathing—so-called heaves—in most cases at least is not caused by hard work, but by eating too much dusty hay. Until colder weather sets in I would advise you to feed your horse a less quantity of rough or bulky food.

Several Questions.—F. D. R., Minden Mines, Mo. 1. There is no cure for blackleg. 2. Blackleg will and can be prevented in two ways; first, by keeping cattle, but young cattle in particular, away from all such places in which blackleg is known to occur, and secondly, by producing immunity by means of a protective inoculation. You may write to President Nichols, of the Kansas State Agricultural College, at Manhattan, Kansas, and ask him to send you Dr. Fischer's inoculation material, with instructions how to use it. The expense will be moderate. 3. There is no specific remedy for influenza, or pink-eye, as you call it. It is a disease which presents in different cases many different features and symptoms, and has to be treated according to them. If you have no veterinarian available who can treat every case according to the peculiarities presented you will do best to abstain from any medication, to exempt the sick horses from any kind of work, no matter whether light or hard, to feed moderate quantities of food easy of digestion, to give the swelled legs a frequent rubbing with the hand, and to keep them clean; and if any sores should be found, to dress them twice a day with a mixture of equal parts of iodoform and tannic acid, or something similar that is antiseptic and will promote healing. After the horses have sufficiently recovered and are free from fever and from any difficulty of breathing gentle exercise (voluntary would be the best), but not work, will soon remove the swelling of the legs. 4. As to paralysis, or lameness, in the hind quarters of hogs, please look up the numerous answers that have appeared since last spring in FARM AND FIRESIDE. The treatment, if not already too late, in all such cases consists in a removal of the causes; therefore, where the latter are not known or where the same cannot be removed a specified treatment cannot be delineated.

Some Chronic Disease.—C. J. B., Kelso, Ind. Your mare undoubtedly is suffering from some chronic morbid changes, but whether they have their seat in the lungs or in some other important internal organs cannot be learned from your communication. Have her examined by a veterinarian.

A Sick Cow—Trapping Game.—Mrs. M. R., Liverpool, Kan. I am sorry not to be able to answer your questions. As to the soreness of the mouth of your cow, the cause may be found by examining her mouth, while the stiffness in the fore legs may have an entirely different cause.——I know absolutely nothing about books instructing how to trap all kinds of game.

Mange.—E. T. L., Minden, La. Wash your dog first with soap and warm water and then once a day with a five-per-cent solution of Pearson's creolin in water, or if this should not be strong enough, with a mixture of creolin, one part, soft soap, one part, and alcohol, five parts; but if the latter is used only one third of the surface of the body must be treated each day. Although creolin is not poisonous, it may be advisable to muzzle the dog and thus prevent him from licking off the medicine. Care must be taken to thoroughly clean and disinfect the sleeping-place of the dog at least once every five days. A healing may be expected in three weeks.

Probably a Case of Navicular Disease.—W. P. S., Southampton, Mass. What you describe appears to be a case of navicular disease, an ailment that must be looked upon as incurable. The best means to ascertain with some degree of certainty whether it is or not consists in having a bar-shoe put on the lame foot. If it is navicular disease the bar-shoe will immediately increase the lameness, and consequently, having served its diagnostic purpose, must at once be removed. If it does not increase the lameness, and has no effect whatever upon the same, it is pretty safe to conclude that the lameness is not caused by navicular disease.

Bog-spavin or Thorough-pin.—J. C. O., Dakota City, Iowa. The "bunches" you speak of are either a so-called bog-spavin or a thorough-pin—which really is the same thing, except as to location—namely, a yielding of the capsular ligament of the hock-joint to an abnormal accumulation of synovia. Whether the bog-spavin or thorough-pin will disappear or not when your colt gets older I cannot tell you, for that depends upon the make-up (mechanical proportion) of the colt's joints and upon the way and manner in which the colt is kept and raised, including the locality in which the colt is raised. Cold-blooded horses have far more predisposition to such ailments than warm-blooded ones, and if the same are kept and raised in a locality that is low and inclined to be damp or wet the predisposition is very much increased thereby. It is true such enlargements of the capsular ligaments and abnormal accumulations of synovia may be reduced by persistent efforts in either applying gentle pressure to the enlargements by means of bandages or of iodine preparations, such as tincture of iodine or iodine dissolved in cod-liver oil; but such a decrease is seldom permanent, because after any exertion both bog-spavin and thorough-pin are apt to make their reappearance. Therefore, and as neither of them as a rule do cause any lameness, it is in most cases advisable to leave them alone.

Castrating a Young Boar.—H. J. H., Pike, Va. The only instrument required for the operation of castrating a boar pig is a suitable knife with a keen edge. The operation itself is as follows: The operator sits down on a chair, an assistant catches the pig, holds it up by the hind legs and steadies the body of the pig between his knees, so that the back of the pig is toward the operator. The latter then takes hold of one side of the scrotum with his left hand and makes an incision of sufficient length extending from upward downward and slightly from outward inward. After the cut has been made of sufficient length it will be found easy to take hold of the already protruding testicle and to pull it out as far as can be done by gentle force. This done, a noose of common twine or of a wax-end, made by a shoemaker, is slipped over the testicle and the epididymis onto the spermatic cord and its blood-vessels and when high enough upward is drawn tight. This done, testicle and epididymis are cut away in such a way that just enough of the cord is left to prevent the ligature from slipping off. Then the ends of the ligature are cut off in such a way that about half an inch will hang out through the wound in the scrotum, in order to prevent the wound from closing before the ligated end of the cord has sloughed off, while if more of the ligature hangs out some other pig in the same pen might get hold of it and cause considerable damage. The other testicle is removed in the same way. If, in making the cut in the scrotum, sufficient care is taken not to wound the testicle, which is easily avoided if the hand is steady and the knife sharp, no blood will be drawn; but if that should happen it will be advisable to wash the parts with carbolized water before the animal is released after the operation has been finished. If swine-plague is in the neighborhood the wounds should be washed at least once a day with carbolized water (a two-per-cent solution will suffice) until no more suppuration exists.

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CHARLESTON, S. C., July 13, 1900.

In accordance with established custom, and in order better to enforce those beliefs and practices which tend most powerfully to advance the cause of popular education and a civilization based on intelligent democracy, the National Educational Association, assembled in its thirty-ninth annual meeting, makes this

DECLARATION OF PRINCIPLES

The common school is the highest hope of the nation. In developing character, in training intelligence, in diffusing information, its influence is incalculable. In last resort the common school rests not upon statutory support; but upon the convictions and affections of the American people. It seeks not to cast the youth of the country in a common mold, but rather to afford free play for individuality and for local needs and aims, while keeping steadily in view the common purpose of all education. In this respect it conforms to our political ideals and to our political organization, which bind together self-governing states in a nation, wherein each locality must bear the responsibility for those things which most concern its welfare and its comfort. A safe motto for the school, as for the state, is: In essentials, unity; in non-essentials, liberty; in all things, charity.

A democracy provides for the education of all its children. To regard the common schools as schools for the unfortunate and the less well to do, and to treat them as such, is to strike a fatal blow at their efficiency and at democratic institutions; it is to build up class distinctions, which have no proper place on American soil. The purpose of the American common school is to attract and to instruct the rich as well as to provide for and to educate the poor. Within its walls American citizens are made, and no person can safely be excluded from its benefits.

What has served the people of the United States so well should be promptly placed at the service of those who, by the fortunes of war, have become our wards. The extension of the American common-school system to Cuba, Puerto Rico and the Philippine Islands is an imperative necessity, in order that knowledge may be generally diffused therein and that the foundations of social order and effective local self-government may be laid in popular intelligence and morality.

The provisions of law for the civil government of Puerto Rico indicate that it is the intention of the Congress of the United States to increase the responsibilities of the Bureau of Education. We earnestly urge upon Congress the wisdom and advisability of reorganizing the Bureau of Education upon broader lines; of erecting it into an independent department on a plane with the Department of Labor; of providing a proper compensation for the Commissioner of Education; and of so constituting the Department of Education that while its invaluable function of collating and diffusing information be in nowise impaired, it may be equipped to exercise effective oversight of the educational systems of Alaska and of the several islands now dependent upon us, as well as to make some provision for the education of the children of the tens of thousands of white people domiciled in the Indian Territory, but who are without any educational opportunities whatever. Such reorganization of the Bureau of Education and such extension of its functions we believe to be demanded by the highest interests of the people of the United States, and we respectfully but earnestly ask Congress to make provision for such reorganization and extension at its next session. The action so strongly recommended will in no respect contravene the principle that it is one of the recognized functions of the national government to encourage and to aid, but not to control, the educational instrumentalities of the country.

We note with satisfaction the rapid extension of provision for adequate secondary and higher education, as well as for technical, industrial and commercial training. National prosperity and our economic welfare in the years to come will depend in no small measure upon the trained skill of our people, as well as upon their inventiveness, their persistence and their general information.

Every safeguard thrown about the profession of teaching, and every provision for its proper compensation, has our cordial approval. Proper standards —both general and professional—for entrance upon the work of instruction, security of tenure, decent salaries, and a systematic pension system, are indispensable if the schools are to attract, and to hold the service of the best men and women of the United States; and the nation can afford to place its children in the care of none but the best.

We welcome the tendency on the part of colleges and scientific schools to cooperate in formulating and administering the requirements for admission to their several courses of instruction, and we rejoice that this association has consistently thrown its influences in favor of this policy, and has indicated how, in our judgment, it may best be carried on. We see in this movement a most important step toward lightening the burdens which now rest upon so many secondary schools, and are confident that only good results will follow its success.

The efficiency of a school system is to be judged by the character and the intellectual power of its pupils, and not by their ability to meet a series of technical tests. The place of the formal examination in education is distinctly subordinate to that of teaching, and its use as the sole test of teaching is unjustifiable.

We renew our pledge to carry on the work of education intrusted to us in a spirit which shall be not only nonsectarian and non-political, but which shall accord with the highest ideals of our national life and character. With the continued and effective support of public opinion and of the press for the work of the schools, higher and lower alike, we shall enter upon the new century with the high hope born of successful experience and of perfect confidence in American policies and institutions.

NICHOLAS MURRAY BUTLER, New York, Chairman,
EDWIN A. ALDERMAN, Louisiana,
CHARLES D. MCIVER, North Carolina,
WM. B. POWELL, District of Columbia,
ALFRED BAYLISS, Illinois,
JAMES A. FOSHAY, California,
JAMES H. VAN SICKLE, Maryland,
WILLIAM R. HARPER, Illinois,
CHARLES F. THWING, Ohio,
Committee on Resolutions.

THE GRANGE IN OHIO

The twenty-seventh (last) annual session of the Ohio State Grange closed November 16, 1899. Since that time the deputy masters, who are the organizers, have not all been indifferent to the needs of the farmer or the claims of this order.

We have organized nineteen granges, and reorganized and reinstated eleven, a total of thirty. Besides these there are several others that had gone to the extreme limit of grange law and official forbearance in the matter of unpaid dues; these have paid up to date and are now in working order.

Of the work done, Worthy Deputy Hattie E. Weymouth, of Logan county, has reorganized one grange, and Worthy Deputy Charlotte G. Norton has organized one. Sister Norton now has two new granges and one reorganization to her credit, and so far as we know holds the record for this line of work. Mrs. S. O. Eggert, of Stark county, being next, with two new ones.

As a rule the reports from the subgranges come more promptly than they did, although it is a little singular that the number of delinquents at the close of each quarter does not vary more than six or eight. The receipts from fees and dues and sales for the month ending February 12, 1900, were larger than for any like period during the last nine years. There is no reason why Ohio Patrons should be discouraged. Gladstone once said, "There isn't a healthy, vigorous, energetic, self-reliant, successful man whose example does not breed the same qualities in others; he winds us up and sets us a-going."

The same remark will apply to any grange. It will be a force for good or a factor for evil; for good if its members put its claims in their rightful place, and give it its share of their thought and time and money. I am losing faith in luck as an element of success. We call people lucky when they are only capable and energetic.

"The heights by great men reached and kept
Were not attained by sudden flight;
But they, while their companions slept,
Were toiling upward in the night,"

is a statement that is literally true more often than we think.

Our Michigan friends are giving us a splendid example of what can be done by systematic and thorough work. There is but little luck about a canvass of every county in a state. It means miles of travel, days of work in cold and storm and mud, indifference overcome, prejudice removed, effort and time and money given, and success at last! We admire their ability, we respect their faithfulness, and without a tinge of envy we congratulate them on the result!

The history of the last twenty years amply proves that farmers can get what they want if they will organize and ask for it, and persist in having it, and stay there until they get it. And they will get it when they show that they are able to take it, or to make some man or some party see defeat if it is not given.

We ought to have one thousand granges and seventy-five thousand members in Ohio. They can be had if we will; it is simply a question of work. We ought to have men in office who will remember that they have sworn to enforce the laws, not to permit their open and flagrant violation. We ought to be politicians in the best and highest sense of the word. We ought to judge men in office by what they do, and not by what they say. We ought to insist that when they are elected to office by our votes, and paid by our taxes, that our interests be not neglected nor our just demands disregarded. We ought to be better business men than we are, to have a more accurate knowledge of business terms and methods. In striving to attain to all these we will find farm-life interesting enough to satisfy the most restless, and its problems difficult enough for the most ambitious.

The grange has passed the point where it needs any excuse or apology, and is just entering upon a period of solid growth; henceforth it will be a factor in all the problems that affect the interests of the farmer. That it will be a permanent factor is shown by the large number of subgranges that now own the halls in which they meet. As shown by the last quarterly reports, thirty-three per cent meet in their own halls, forty per cent rent halls, thirteen and one third per cent meet at the homes of members.

F. A. AKINS, Secretary.

EDITORIALS

We are glad to present to our readers the declaration of principles of the National Educational Association. This association represents the highest educational association in our country. It is slowly but surely solving the problems that confront educators today. It is to the educational world what the grange is to farmers. Its deliberations and declarations should be followed closely.

* * *

The best work of the grange must ever be along educational lines. In shaping the destiny of the farming class, in laying broad and deep the foundations for a sound education for body and soul, in making it possible for every child in the rural communities to secure such an education as will fit him for enjoying the benefits and contributing to the welfare of his country and mankind, on these must the grange base its claims for recognition and praise.

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THE LEISURE PROBLEM

By Lilla A. Whitney

The problem has long been how to secure the leisure, and although in various ways during the last few years it has been partially solved, the leisure hour remains for the large majority of housekeepers upon the list of things long coveted yet not attained. To set aside a certain hour in the day to be used solely for herself has been proved by the housewife an impossibility. She cannot foresee what emergency may be crowded into it, and though she never quite abandons the hope of securing it, the phantom hour, with all its attractive possibilities of achievements, continues to recede into the distance as she seems to approach it. Yet the necessity of leisure for the American woman was never so apparent as now, for never before were her powers, both mental and physical, so thoroughly called into action.

The requirements of American living have grown more numerous and complicated year by year, until, like the house that Jack built, containing all the material with which it began, and much more besides, a standard is finally developed, that if it were not for some offsetting circumstances would be far beyond the capacity of any housekeeper to reach.

It is by these offsets that the partial solving of the leisure problem has been accomplished, and it is undoubtedly by the right understanding and further use of them that the supply of time for rest and recreation in the American household will in the end be found equal to the demand.

One of them, and a very important one, is the provision made outside the home for home needs. In the cities this provision is almost without limitation, while even in small towns the ready-made clothing for women and children found at all dry-goods houses, the cooked meats, pastry and cakes to be had fresh daily at bakeries, groceries and restaurants, go a long way toward lightening home labor if one chooses to take advantage of them. It may be objected that these necessaries are not upon a par in quality with those of home manufacture; but even allowing this to be sometimes true, the gain in using them must always overbalance the loss when time and strength on the part of the housewife are considered.

Another point is reached in the solution of the leisure problem by "letting go." The tendency of ordinary housework, if pursued without needful rest or change, is narrowing to the intellect, for the brain, when given nothing to do on its own account, falls idly into the rut of thinking about the work in hand, while its higher powers are either dulled from lack of use or remain always undiscovered. Yet the same work, if not pursued to the exclusion of all other interests, is compatible with good brain-work, and can be made an aid to it by furnishing that experience for the body which stimulates brain-activity.

The secret lies in letting go work before one is actually forced to do so from utter weariness and exhaustion. By this means a small nucleus of reserve force is laid aside, which, if it receive a daily addition, will increase after the manner of a savings-bank fund; and like that be ready for the proverbial "rainy day"—sure to come—when reserve strength more often than any other resource is likely to be called out.

For the overambitious but not overstrong housekeeper it is well to adopt the letting-go system and resolutely live by it as by a rule. Let go altogether the work that consumes time without resulting in a proportionate increase of comfort. Let go, also, those things that are not absolute necessities, even though they are desirable, if there is not strength sufficient for the effort required in accomplishing them.

For much of the exhaustive, nerve-destroying work that falls to the lot of many women the social functions may be held responsible. A constant round of gaiety is as fatal to the leisure hour as one of labor, unless the votary of so-called pleasure knows how and when to let go. Society breakfasts, dinners, teas, receptions, the opera and theater in their season, with endless calling and visiting—count these in excess as among the things that do not pay for the sacrifice made to obtain them. Take from them at least the time to rest, to think, to remember. Above all things, let go hurry and worry; they will prevent the feeling of leisure, even though time for it be afforded. They constitute the wear and tear of life that undermine health, making of some women total wrecks, and sending others either to insane asylums or to premature graves.

A few among the number of hurried, worried and tired housekeepers learned long ago how to let go, and upon such has stolen slowly and unawares the blessed hour of leisure. With its peace and quiet and opportunity for thought come a gradual increase of vitality, a recuperation of nerve-force, a widened perspective in the outlook upon life, and a broadening and deepening of the sources of life within the soul. They who climb let go the rope only to grasp it again further up.

The advent of the woman's club furnishes still another factor in the solution of the leisure problem, and proves conclusively how much can be accomplished under pressure.

The club at Queryville was, at the time of its inception and in its own locality, a new thing under the sun, and decidedly an aggressive one. Even the afternoon of traditional "blue Monday" had been wrenched out of the time-worn rut of its occupations and made to serve the purposes of this club. In fact, the latter had actually been named in honor of the inauspicious day, and was known far and near among the surrounding villages as the "Queryville Monday Club." A visitor from a distant city had set the ball rolling, and the momentum imparted at the outset had increased until the membership-list of the Monday Club numbered nearly all the women of Queryville. The name of little Mrs. Hyde appeared among the last. She had said all along that for her to join the club was impossible; she had not an hour in the week to call her own, and to get away on Monday afternoon of all others would be simply out of the question. Still she could not quite bring herself to the point of flatly declining; there was a sort of pleasant little excitement about doing, or at least trying to do, what others did, and as her protests had not the force of originality—having been offered individually by each member in turn, as a kind of initiatory formula—they passed for nothing, and Mrs. Hyde's name was placed upon the list.

Upon consulting the club's program for the season she finds that certain work is laid out for her, and as one is always sure to do what one has to do, the necessary time is abstracted somehow from each busy week; yet the household machinery runs on as of old, even Mrs. Hyde herself being conscious of no break. She is, however, soon conscious that something new has entered her life, but the winter is half gone before she realizes that it is indeed the welcome hour of leisure. She has waited no longer for its uncertain coming, but has unwittingly snatched it while on the wing and taken it into her own keeping. From it she has carried to her daily work new thoughts and aspirations. To the common home duties it has imparted a zest and interest that have long been lacking. The goddess of change—that capricious worker of miracles—has been busy here, and with the aid of the leisure hour has transformed the patient, plodding, practical Mrs. Hyde into the ambitious, wide-awake and interested worker. No matter what the work was, thought goes with it and beyond it. Whether journeying with the club in distant lands, and following the Old-World heroes through their eventful lives, or in the study of our own republic—that theme ever new, its glorious birth, its wonderful growth, with the great issues past and present engendered by its life—Mrs. Hyde's interest never once flags, while she often finds herself questioning her children as to what they have learned at school upon the same subjects. She discovers that there is much she can teach them of what she is herself learning, and that their interest in study is increased by her help and sympathy.

The time cannot be far off when, as the product of all the given factors and of others that might be given, the leisure hour will emerge from its obscurity a problem fully solved—the sure and permanent possession of every woman in our land. Let her but stretch forth her hand and resolutely take it, then drop the cooking and cleaning, the mending and making, and use it for thought and study—yes, and for wholesome, restful idleness, too—and not only must a great increase of intellectual power be soon felt throughout our country, but also that spiritual uplifting which is the foundation of a deeper and more significant life.

WHEEL-EDGING

Abbreviations—Ch, chain; st, stitch; tr, treble; s c single crochet; sl st, slip stitch; p, picot.

Ch 8 for a ring.

First round—16 s c under ring; join.

Second round—Ch 9, sl st in fourth st of ch for a p, ch 2, miss 1 st, 1 tr in next, * ch 5, sl st in second st of ch for p, ch 2, miss first tr in next; repeat from * until there are 8 p; join.

Third round—Ch 24, * tr in sixth st from hook, ch 1, miss 1 st, tr in next, make two more ch 1 spaces, then ch 4, miss 4 st, sl st in next, ch 3, miss a p, tr on tr, ch 21; repeat from * seven times, join with a sl st in the third st of the first long ch; the first 2 st of this ch are for a tr.

Fourth round—* 3 s c under ch 3, then 1 tr in each of the next 12 st, 2 tr in each of the next 3 st, 1 tr in each of the next 12 st, 3 s c under ch 3; repeat from * seven times.

Fifth round—Sl st to the fifth tr, ch 2 for tr, miss 1 tr, work a tr in each of the next 7 tr, 2 tr on each of the next 6 tr, 1 tr on each of the next 8 tr, cross over to the next point, putting first tr on the fifth tr of point and the last tr opposite the first one; repeat around and join to ch 2, sl st to fifth tr, ch 5, miss 1 st, tr in next, ch 7, sl st in third st of ch for a p, ch 2, miss 2 st, tr in next, make 5 p, then a ch 1 space, and cross over to the next point and finish the rest in like manner. Join the wheels as seen in the illustration.

The first and second rounds of the little half wheels are made like the center in the large wheels. For the third round make ch 10, sl st on tr of last round; repeat three times, then cover each ch 10 with 15 s c and join to large wheels while working them, or with needle and thread.

The first row of border is a ch made to suit the length between the spaces; work back with ch 1 spaces, at the end of row ch 8, tr in third st of ch, ch 2, tr in first ch 1 space, ch 2, miss 1 space, s c in next, ch 2, miss 1 space, tr in next; turn work, and make 3 tr in second 2 ch, ch 2 and 4 tr under next ch 2, then a tr in space at end; turn, * ch 4, 4 tr under ch 2 between the tr clusters, ch 2, 4 tr under the tr next to ch 1 row, ch 2, miss a ch 1 space, s c in next ch 2, miss a space, tr in next, turn, 3 tr in ch 2, 4 tr in next ch 2, 1 tr in ch 4, turn, and repeat from * to end of row; finish with ch 1 spaces.

This lace makes a handsome trimming for bed-spreads, ends of bureau-scarfs, etc. Mrs. J. R. Mackintosh.

FLOWER LORE

How many lovely and tender fancies are woven in with the names of such garden flowers as honesty, bouncing-bets, mourning-brides, bachelor's-buttons, love-in-a-mist and spinning-jennys. It must have been a prim youth who first lent his name, sweet-william, to the flower that blooms so stiffly by the garden walk, and escaping among the wild flowers what laughing girl could have been a namesake of the merry black-eyed-susans that set the field ablaze in the long sunshiny days of July?

Even the commonest roadside flowers each have their own bit of legend or history, or perchance have mirrored their bright faces in the crystal of a great man's verse. Such a one is the lemon-yellow celandine, said to be so named because it comes with the swallows. In these pretty lines by Wordsworth it is claimed as his own flower:

> Pansies, lilies, kingcups, daisies,
> Let them live upon their praises;
> Long as there's a sun that sets
> Primroses will have their glory;
> Long as there are violets
> They will have a place in story;
> There's a flower that shall be mine,
> 'Tis the pretty celandine.

The daisy has always been loved by poets, who called it "day's-eye." The dandelion, with jagged, lance-shaped leaves and jocund, yellow head, bears proudly its name, dent-de-lion, from the golden teeth of the heraldic lion. The loosestrife, a slender yellow flower with four-leaved petals, growing along the roadsides in June, is said to have been named after Lysimachus, the king of Italy; but the old superstition that the placing of these flowers upon the yokes of oxen rendered them gentle and submissive may have given them the name.

Another flower named for a king is the blue flag, or fleur-de-lis, which does not mean flowering lily, as is commonly supposed, but flower of Louis, this regal flower being chosen as the especial emblem of Louis VII. of France. Another flower with a splendid name is the cardinal-flower, which was sent to France by the early French-Canadians as a specimen of what the New World could produce, and at that time was probably named after the gorgeously attired dignitaries of the Roman church.

The mullen, known as the American velvet-plant in England, used to be called candelabra by the Romans, from their custom of dipping the long dried stalk in suet and using it as a funeral-torch, while the Greeks utilized the leaves for lamp-wicks.

The butterfly-weed belonging to the milkweed family is another flower which has attained distinctions abroad, and at the Centennial much attention was attracted by a bed of these beautiful plants brought from Holland, prized for the vivid flame-color of their blos-

soms. Milkweed is of commercial value abroad because the pods of fluffy-winged seeds are so useful in making the fairy-like pompons, which are colored in delicate shades and used for funeral-wreaths. One man in this country had an order to the amount of one thousand dollars, which kept himself and family busy for some time.

The name of our innocent little clover came from the Latin Clava, or clubs, in reference to the fancied resemblance between the three-pronged club of Hercules and the clover-leaf.

The dainty little pimpernel, found in sandy fields and along roadsides, is so sensitive to the weather that it folds its petals at the approach of rain and fails to open them at all on a wet or cloudy day. In fine weather it closes in the afternoon and sleeps until the next morning, when its tiny petals, usually of a bright red, but sometimes white or blue, are opened. This modest little plant, called the poor man's weather-glass, should be cherished in every garden.

Our familiar roadside blossom, chicory, with its "dear blue eyes," is extensively cultivated in France, where its leaves are blanched and used as a salad. The roots, as we know, are roasted and mixed with coffee both there and in England. Horace mentions its leaves as part of his frugal fare, and Pliny tells us that the Egyptians used it in great quantities.

The sunflower is the flower of Clytie, the goddess who turned her face all day to the sun. So Tom Moore writes:

> I will not have the mad Clytie,
> Whose head is turned by the sun;
> The tulip is a courtly queen,
> Whom, therefore, I will shun;
> The cowslip is a country wench,
> The violet is a nun,
> But I will woo the dainty rose,
> The queen of every one.

The St.-John's-wort, whose bright yellow flowers on profusely branched stems are noticeable in the fields and along roadsides all summer, has been considered a good remedy for melancholia. For this reason it is called "fuga daemonum," and this may have given rise to the idea that it was useful in dispelling evil spirits.

"Perhaps more superstitions," says Mrs. Dana, "have clustered about the St.-John's-wort than about any other plant on record. It was formerly gathered on St. John's eve, and was hung at the doors and windows as a safeguard against thunder and evil spirits. A belief prevailed that on this night the soul had power to leave the body and visit the spot where it would be finally summoned from its earthly habitation; hence the all-night vigils which were observed at that time.

> "'The wonderful herb whose leaf will decide
> If the coming year will make me a bride.'

"is the St.-John's-wort, and the maiden's fate is favorably forecast by the healthy growth and successful blossoming of the plant which she has accepted as typical of her future."

The jack-in-the-pulpits, with their purple-green hoods, are called lords and ladies in England. There is the sweetest story about the stains on their hoods, which legend claims were received at the crucifixion:

> "Beneath the cross it grew;
> And in the vase-like hollow of the leaf,
> Catching from that dread shower of agony
> A few mysterious drops, transmitted thus
> Unto the groves and hills their healing stains,
> A heritage, for storm or vernal shower
> Never to blow away."

These stories and many more may be found in that delightful book of Mrs. William Starr Dana, "How to Know the Wild Flowers." Other books for young people are "The Fairy-land of Flowers," "Little Flower People," and "How Plants Grow."

A new set of nature-books by F. Schuyler Matthews gives "Familiar Features of the Roadside and Familiar Flowers of the Field and Garden." With some such help the flowers will not only bloom for us, but they will talk to us, and we shall thus come to feel acquainted with them.

Frances Bennett Callaway.

THE SERMON OF LOVE

> The preacher took the very text—the dear, devoted brother!
> 'Twas just that simple one and sweet—"Love one another!"
> He must have known my heart made moan in all this life so dreary;
> He seemed to preach at me, and then—he seemed to preach at Mary!
>
> She turned her eyes—blue as God's skies—when that dear text came ringing,
> And to my grieving soul's surprise she joined not in the singing;
> I thought I heard her lips repeat the text of that dear brother,
> And that her heart was saying, sweet, "Love—love—love one another!"
>
> A blessed sermon 'twas to me; the benediction over,
> I walked with her in ecstasy, across the fields of clover;
> And then I told her all the love of my true heart could not smother,
> And now, through life, forevermore we're loving one another!
>
> —Atlanta Constitution.

SEPTEMBER HINTS

September is pre-eminently the month for canning, preserving and pickling, and yet just now is the time to change the old proverb and "never do to-day what can be put off till to-morrow." Of course, fruits must be attended to in their season, but tomatoes, cucumbers and other vegetables used for pickles, catchups, etc., by a little planning can be had at their best the last of September instead of the first. The weather will then be cooler, and it is the experience of housewives that the later this work is done the better the success.

One of the most important things to be observed in canning is to be sure that your fruit is just at its most perfect state—not too ripe, but freshly gathered. Some housekeepers can fruit without sugar, but I do not think it is as good as when the sugar is added at the time of canning; but it is better to add the sugar only a few minutes before the fruit is cooked sufficiently. Set the sugar over a kettle of hot water or in the open oven, where it will heat, then it will not stop the boiling of the fruit when it is added. It is always better to cook a small portion of the fruit at once, just enough to fill one or two quart jars.

Never can grapes without removing the seeds. To do this, slip the pulp out of the skins and boil the pulp until you can rub it through a colander, which will remove the seeds; then put the pulp and skins together, let come to a boil, add the sugar, and as soon as it boils up enough to dissolve the sugar fill the jars, and seal.

Spiced Grapes.—These are nice to serve with meats. Prepare the grapes as for canning, then to five pints of the grapes add five pints of sugar and a scant half pint of vinegar, two ounces of ginger-root and three teaspoonfuls each of cinnamon, cloves and allspice. Let it boil slowly until it will almost jell or is quite thick, then seal in glass jars.

Sweet Pickles.—Peaches, pears or sweet apples may be pickled by the following receipt: Take seven pounds of sugar to one quart of vinegar; let it come to a boil, then put in the fruit, which has been previously pared and two cloves stuck into each. Put two ounces of ground cinnamon and allspice and one ounce of mace into a thin muslin bag, and let it boil in the vinegar. Boil the fruit in the vinegar until a broom-splint will pierce it, then seal in glass jars.

Cucumber Pickles.—The following receipt for cucumber pickles never fails to give satisfaction. Be sure that your cucumbers are fresh little ones, about three inches long. Put them in an earthen bowl or crock, and for three mornings pour hot salt-water over them—one cupful of salt to six quarts of water. Make it fresh every morning. The fourth morning heat some weak vinegar with half an ounce of alum in it, pour over the cucumbers, and let them stand until the next morning. Put them in stone jars or glass cans, put half an ounce of white mustard-seed to each gallon of pickles, and a small lump of alum—about half an ounce. Fill the jars with cold vinegar, lay horse-radish leaves over the top of the pickles, cover closely, and set in the cellar. Sweet and spiced cucumbers may be made by adding sugar and spices, boiling the vinegar, and pouring it over these pickles at any time.

Chopped Pickle.—One dozen large, perfectly green tomatoes, one dozen green cucumbers, three heads of celery, three large red peppers and three white onions. Chop these together, scald in weak brine, drain, and scald again in one quart of vinegar and water, half and half. Drain from this, and pour on hot one gallon of vinegar in which you have put one and one half pounds of sugar, three ounces of white mustard-seed, a teacupful of grated horse-radish, one teaspoonful each of ground black pepper, mustard, cloves and allspice, a half teaspoonful of red pepper and a tablespoonful of ground cinnamon. Put into pickle-bottles or glass jars, and seal.

Maida McL.

NOTHING NEW

We were at the old farm, under the roof-tree again—three generations of us—and grandfather was the center of interest.

"They say this is the age for young people, but seems to me I have the seat of honor among you, and do all the talking," said grandfather, as one and another kept him answering questions.

We had just been paying tribute to the venerable elm in front of the house, when one of the company said, "Grandfather, did you read the notice of the falling of the old elm at Fort Meigg not long ago? You used to be there, did you not?"

"Yes, I was up on the Maumee a long time. It was up there I got my nickname, 'Sun-a-go' (spry as a squirrel), from the Indians. If they saw me with my canes they would not give me that name now.

"It was that tree that Paul Navarre, the scout, climbed and warned the fort of the approach of the Indians. That tree as a signal-station had a good place in history.

"Fort Meigg was built under the direction of General William Henry Harrison, at Tippecanoe, the home of the treacherous Indian prophet." Grandfather then broke into a song:

> "The tenth of September
> Let us all remember,
> As long as the world on its axis goes round."

Grandfather talked on: "That elm-tree at Fort Meigg again became famous during the time General Harrison ran for President of the United States. That was the last time I was under the tree, but I climbed the tree many a time before. That was a great mass meeting under the elm, and to this day I remember some of the things that General Harrison said. 'I have been asked,' said he, 'since my nomination to make a great many pledges, but have declined, as my political experience has been that the more pledges a candidate makes the more trouble he gets into, and really the more untruths he is in danger of telling.'"

"Grandfather, you know most everything, and have seen a great deal," said Henry, "but there is one thing you will have to acknowledge is new."

"What is it, my boy?"

"Automobile, or the horseless carriage," was Henry's answer.

"You just wait a minute and I will show you something," was grandfather's reply; and he hobbled off to his room.

He soon returned, bringing his famous note-book with him, which was partly made up of his own writings and partly of scraps pasted in.

"You know I have told you that I went on a whaling voyage—yes, more than one voyage—with my uncle seventy-five years ago. We were in Dublin, and while there I saw and heard much that was at least strange to me."

Grandfather put on his glasses, and read: "'A Dublin coach-maker attracted much attention by showing a handsome carriage ingeniously made, having three wheels. The carriage was propelled by a gentleman sitting therein. It moved at the rate of not less than eight or ten miles an hour. The force applied is four levers, which are alternately acted upon with ease, either by the hand or foot. The carriage can make an angle with much greater celerity than a coach drawn by horses. The maker is building another one, which, it is believed, will be an improvement on the one shown, and it is thought these "horseless carriages will supersede the present system of mail and other coaches drawn by horses."' It seems to have taken a good while to perfect them," added grandfather, "but you see it is not a new idea."

"I guess," said Bessie, "that you agree with the 'preacher,' that 'there is no new thing under the sun.'"

"And I guess it is true that things are not new, only there are a great many combinations possible with the forces and material on the earth. There is no need of further creation; that person is a genius who is able to use the things at hand."

As the house-party broke up one of the young people said, "Grandfather can preach a nice sermon, no matter whether he takes a tree or a chariot for his text, and he was not a minister at all, was he?"

Mary Joslyn Smith.

SOME SEASONABLE RECEIPTS

Peach Shortcake.—Butter a baking-dish and fill to the depth of one inch with rich, soft peaches; then make a rich biscuit-crust rather soft to handle, and drop on the peaches with a spoon, about three fourths of an inch thick, and bake for three quarters of an hour in a moderate oven. Serve warm with or without sweetened whipped cream, as preferred.

Baked Apples.—Peel and core ten medium-sized apples; place in a baking-dish and fill the holes with sugar. Then make a sauce of three tablespoonfuls of butter and three tablespoonfuls of flour creamed, and add boiling water to thicken; pour over the apples, dust over with nutmeg, and bake until a broom-straw will pierce them easily, basting them with the sauce in the pan once or twice while baking. These are delicious served cold with or without cream, and can be made of sweet or sour apples.

Old-fashioned Apple-slump.—Butter a dripping-pan and fill one inch deep with apples; then spread over a rich biscuit-crust and bake until the apples are soft; then turn upside down on a platter and spread butter, nutmeg and sugar over, or serve with foamy sauce.

Foamy Sauce.—Cream one half cupful of butter and one cupful of sugar, add nutmeg and the yolk of one egg, then add one cupful of boiling water, and serve.

M. H. Baldwin.

MAKE THE TEST AND SEE IF—

—A dish-cloth made of two thicknesses of cheese-cloth is not preferable to one of crash for washing glass and china.

—Stove-cloths half a yard square, made of denim, ticking or cotton crash, are not better in every way than padded holders for use about the kitchen range.

—Keeping on hand a generous supply of dish-towels, jelly-bags, iron-holders and similar homely necessities is not "a spending that spares."

—Dust-sheets of indigo-blue print, well made and of different sizes, according to the proportions of your furniture, are not a boon on sweeping-day.

—Using a carpet-sweeper just before, as well as after, giving a carpet a thorough sweeping with a broom does not very materially lessen the amount of dust left for the broom.

—A covering of cotton flannel used fleecy side outward between the ticking and decorative cover of sofa-pillows does not make them decidedly softer and more agreeable.

Katharyn.

SUET PUDDING

Add one teaspoonful of soda dissolved in hot water to one cupful of molasses, and beat until light. To this add one cupful of sweet milk, three fourths of a cupful of chopped suet, one teaspoonful of cinnamon, one third of a teaspoonful of nutmeg and the same amount of cloves, and, last of all, flour to make a stiff batter, and one cupful of chopped raisins. Steam in a buttered mold three hours, and serve hot with a sauce. If any of the pudding is left it can be sliced, the slices placed on a plate and reheated in the steamer.

Hope Daring.

THE PASSION PLAY OF 1900

T WAS a young lady from Boston who was overheard to remark, as she strolled out from the theater, "Really, you know, we have at home the book from which they took this play, and I read it several years ago; but in spite of that I found it really interesting."

Interesting? Indeed it is, every instant of it, from the moment that the tourist steps foot on the charmed but dusty soil of Oberammergau until the last of the spectators has taken his departure. Interesting? It is the experience of a lifetime. Former pilgrims to Oberammergau shrug their shoulders and say, "Oh, dear, it is nothing as it used to be! To think of coming directly to the 'Passion Play' by train. It robs the whole thing of its quaintness and charm." And so it may, but it puts the experience in the reach of thousands who would not otherwise be able to witness the performance, and instead of riding dustily or tramping laboriously from Oberau to Oberammergau one is able to start from Munich in comfortable carriages of first, second, yes, and third class, the latter being a trifle hard for the last hour and a half, but still not the worst thing in the world for a tourist. The ride from Munich is not especially interesting. Imagine a trolley-ride through an especially rich Vermont pasture, with the White mountains at May-time in the distance, and one gets an idea of the approach to Oberammergau; but from that time on there is nothing with which a comparison may be made. An array of porters storms the cars and carries away your label-adorned belongings and trophies, while you join the two or three noisy knots which make the platform so deafening. Either you "follow the man from Cook's" or "gaze at the man from Gaze's" or besiege one of the other agents. The one important question is, Where are you to find your lodgings? Babel itself could not have been more confusing. "Two rooms for Mr. Smith!" "Have you a room with one bed for Mrs. Perkins?" "I telegraphed from London for a room." "What name?" "Robinson." "Nothing here." "Two beds for Mr. Perkins." "Rudolf, Herr Mayer." "I have two young ladies—" "What name?" "Mrs. Williams." "Hans." "I telegraphed—" "What name?" "A bath and a—" "Have you got—" —! —! —! And so it goes on for an hour, until one wonders if order can ever be restored out of this chaos.

But as it happens things are all simplified very readily. All the available accommodations have been tabulated, and while bedlam has been reigning the agents have been selecting the right names, sending the new-comers off to north, east, south and west with the most interesting of guides. One could not help gazing at them with fascination, for their long hair and flowing beards were striking in the extreme, and the wonder was whether they wore them in that manner from tradition or for the exigencies of the "Passion Play." I found out for myself when I visited a barber's shop in the afternoon and perched myself in a chair where the only thing that I could see was a beer sign adorned with a lithograph from "The Belle of New York." With the fifth stroke the barber had my face mutilated in a manner that will be visible for weeks. Any one would let their hair and beard assume a patriarchal aspect rather than risk such a shaving. These men at the station were in peasant attire—slouch hats adorned with a jaunty feather, gray coats with green collars, green vests, short gray trousers revealing grimy knees above the tops of the thick green and gray stockings, and grimy ankles beneath.

One of these men grasped my solitary bag and trudged off with it before I realized that my place had been selected. I quickly followed. "What a tiny hamlet!" I had exclaimed, when I first caught sight of the hills, the covered theater and the quaint roofs. "Will it never end?" I groaned, as I staggered along after my guide. The sun was beating down with terrific intensity; there were no sidewalks, the streets were dusty, filthy and woefully hard, and my leader took a pace that was natural for him, but was not at all suited to me, who had been cramped up in the unnatural limits of a foreign compartment-car.

It looked like a stage city as we hurried along, for the dwellings did not look habitable with their quaint, low roofs and their plastered walls, upon which in many cases were frescoed scenes from the "Passion," and in others fantastic filigrees above and below the windows. I found the substantial reality very soon, when I was ushered into a room up beneath the rafters, where two beds with the most nightmare-inspiring feather-beds for coverings were the chief objects of interest. Still everything was wonderfully neat, and the most fastidious could not object. The food, too, was surprisingly good and in large quantities. The epicure will ask what was served. I could not answer, for it was all good; but if it had been broiled cats and crow saute it would have been devoured with avidity in the bracing air.

With the afternoon one went about the town and was everywhere seduced to buy excellent wood-carvings and glaring post-cards. This habit is a growing one with tourists, and one begins to wonder where it will end. Do the dear ones at home really yearn to know from Bingen "We had griddle-cakes for breakfast; did you, Turtle Dove?" or is there great relief for relatives to know that "Father's corns are troubling him more than ever, but mother's teeth do not plague her. With love, Popsy," when it is sent as a message from Munich, with an allegorical representation of Bavaria and a foaming stein of beer filling up the card? However, the multitude rushed for the pictures, and only a few noticed with regret that the players in the sacred tragedy did not hesitate to impose upon a credulous public pictures that had done service in 1890.

After dusk the place assumed its gayest aspect. The protecting mountains seemed even grimmer and taller than ever in the twilight, but the twinkling lights of the little village assumed an air of general festivity. All day long the visitors had been coming to town by train, by car and by foot, and now all were out for a stroll. The two predominant classes were priests and Sunday-school teachers. The former did not hesitate to take their ease at the little tables in front of the inns and quaff the excellent beers served in monstrous steins, while the others frowned at every indication of gaiety or enjoyment. There were priests with robes and priests without, priests with beards and priests cleanly shaven, but they were all the honored guests of the village, and every passer-by had a kindly greeting for them.

Toot, toot, up the street came the blare of what sounded like a street-band, and in an instant the symphony orchestra of Oberammergau put in its appearance. These bearded porters were all musicians, and they played gay airs as they marched through the town, followed by every urchin in the hamlet, bare-footed, long-haired, but as happy as kings.

Gradually quiet came on, as the tourists rambled homeward to bed, and only the two giant mountains stood silent guard over the village, which was sleeping in preparation for the morrow. Sleeping? Temporarily only, for it seemed as if one had only regulated the monster feather-beds which serve as coverlets when the church-bells set up a prodigious clanging and the whole village was astir. It was the call to the sunrise mass, which was held in the little church for those who take part in the "Passion Play," and which every tourist in Oberammergau tried to attend; as a result the quaint little churchyard outside the building was filled with curiosity-seekers and the doors were filled with what closely resembled a foot-ball rush at an American college. Some got stranded in the doorway, but others got inside and could see the attractively frescoed walls and ceiling, the altars rich with wood-carvings painted and gilded, and the worshipers, who followed with closest attention the service, which lasted for more than an hour. The organ had the assistance of several brass instruments, and the almost constant music had an additionally attractive effect.

Then came the skirmish for breakfast, after which in every dwelling-house came the important event of the day, the sale of tickets for the "Passion Play." At the opening of the season the bedrooms in Oberammergau and the seats in the theater were given a census, and tickets were distributed accordingly. It would hardly do for a man to trust to luck in buying a seat at the time of the performance, for unquestionably all had gone long ago. For example, at the performance of which I am writing more than a thousand more wanted to see the play, and so the authorities arranged for another performance.

Clouds of dust all over Oberammergau accompanied the pilgrims to the theater, just as pillars of fire guided the followers of Moses. Smoke was not permissible within a respectable distance of the theater, and the unconscious puffer of a cigar or cigarette met with an unexpected obstacle in the shape of a helmeted policeman.

Inside the great theater everything was life and activity. All countries of the world had sent their thousand or more representatives. Germany naturally having the most, but America coming ahead of England so far as numbers were concerned. The theater is a new institution of the present season, so that tourists no longer have to sit exposed to the glare of the Oberammergau sun for four hours at a time, and are not exposed to the risk of a drenching from a sudden Alpine shower. The seats rise in a gradual incline, giving each spectator a perfect view of the stage, which has the same background that has caused so much delight in years back. One seemed in imagination to be glancing upon a street scene in ancient Jerusalem. At the right and left respectively were the houses of Annas and Pilate, and beside them stretched away streets, with houses on either side. In the center was what looked like a Grecian temple, and which was to serve in the course of the day as the Garden of Eden, the Temple, the meeting-place of the Sanhedrin, Calvary and the way to Heaven. In short, this was the stage for all the episodes excepting those requiring the presence of a multitude. It was now shut off from view by a screen, with paintings of Moses, Isaiah and Jeremiah. All the stage was open to the air, and behind the mimic buildings one could see the real walls of the Bavarian mountains rising high in the air and with green turf and trees in the greatest richness. The fresh Alpine breezes blew freely through the theater, which had one end entirely open and large windows in the sides, and gave an effect of freedom that is never found in the ordinary theater.

Guns boomed and echoed from the hillside, giving the signal that it was time to begin, and then from underneath the stage issued mysterious strains of mysterious music, for the orchestra had a sunken well much the same as at the Wagner operas at Beyreuth. Then approached from the extreme right and left a quaint procession of men and women dressed in gorgeous hues. They were the guardian angels, who, like the old Greek clowns, are the interpreters of all that takes place upon the stage. Their robes were of white, tied with gold cord, but each had a flowing mantle of some bright color, the whole being surmounted with a crown of gold. The leader was a man of patriarchal aspect, with a long, flowing beard of silvery white. His robe and mantle were different from the others, for they were all of white, although embroidered with gold thread. His crown was of unusual size, and in his hand he carried a great staff with a golden globe for a tip. His very stride was that of a veritable god and stamped him as an important personage. So he was, for this leader is the best-known and most-talked-of man of all Oberammergau, Josef Mayer, the famous Christ of the performances of 1870-71, when the special series was given to complete that interrupted by the Franco-Prussian war, 1880 and 1890. No other man had ever played the part so many times or so impressively, and one can readily imagine how heart-broken the man must have been when the allotment was made and he saw the part, his part, given to a younger man. Still it was inevitable, for wigs and beards and hair-dyes were out of the question in these performances. Still an actor would say that he ought not to complain, for now he has the center of the stage, the coveted place of every professional player, more than half the time. He evidently appreciated that fact, for he posed in such a "look-at-me-I-am-the-only-person-on-the-stage" manner that the new-comer wondered at the stories of wonderful effect that had been handed down as traditions from earlier performances.

After a few minutes of song and recitative the chorus drew backward and the central curtains were drawn, representing the expulsion of Adam and Eve from the Garden of Eden. Before their departure they had taken the time to secure an elaborate outfit of sheepskins; but that was a warmer garb than fig-leaves in the keen Bavarian air. The scheme of the play is to have a tableau from the Old Testament precede its fulfillment in the New, and so when the curtains had been drawn and the chorus had been retired the real play began with the entry of Christ into Jerusalem and the expulsion of the money-changers from the temple. It was a wonderfully vivid picture, which showed the standard of this production. Up the two streets flocked a multitude of men, women and children, waving palms and shouting hosannas. There was none of the set monotony of the professional stage, but everything occurred as it might in life. It was a striking multitude in appearance, for the robes were of every variety of hue combined with a kaleidoscopic effect that was constantly varying. The flowing beards and hair which had seemed incongruous while waiting for a train in July, 1900, now seemed perfectly harmonious with the dress and beauty of the days of Christ. Riding on the back of an ass came Anton Lang, the central figure of the play and a wonderfully handsome young man, with flowing hair and beard much like those which tradition has given to Jesus. He advanced to the temple, and with a few quick words denounced the traffic and overturned the stalls. That action released the pigeons which had been confined in the basket. Out they flew into the auditorium, over the heads of the spectators, and darted through one of the open windows, to fly away homeward. The strife of the priests against Christ was fanned into flame by the efforts of the traders, and the act ended with their demand for justice.

Back trooped the chorus again, to introduce a tableau showing Jacob's children conspiring to kill Joseph, which served as a preface to the Sanhedrin, where Caiaphas, Annas and the others plotted the ruin of Christ, urged on by the traders. The tableau was like all the others, an exemplification of the perfect in the art of living pictures, and the acting was natural and wonderful for peasants. Their articulation was perfect, and the acoustics of the auditorium were so well arranged that not a syllable was lost.

And now the guardian angels returned, and by this time it had begun to be somewhat of a bore as compared with the rest of the performance. Their selections were long, their droning was monotonous, and, if the truth must be told, many a head was seen to nod while they held the stage. Now they introduced double tableaux—the departure of Tobias, a scene from the Apocrypha, and the bride of the Song of Solomon lamenting her absent master. These prefaced the departure of Christ from Bethany and the leave-taking in preparation for that last journey to Jerusalem. Mary Magdalene appeared in that scene, and in her I recognized the pretty girl whom I had seen the night before in the kitchen of my little inn, checking off the dishes which were cooked and served to the mountaineers sitting at the little tables directly on the street or in the eating-room, which had a quaint tiled stove in one corner and trophies of the hunt all along the walls. Surely here was a good actress wasted, for she had a pretty and expressive face, and the pathos of her voice would bring her a fortune if she ever went from Oberammergau, which, judging by the popularity of her father's inn with the young men of the village, is extremely improbable.

A rich tableau representing Vashti's repulse by Ahasuerus led the way to a scene on the journey to Jerusalem, where Judas makes the first promise to betray Christ; and then comes one of the most moving scenes of the entire piece—the Last Supper—which realizes in actuality the painting by Da Vinci. To introduce it and to show the contrast with its simplicity were masses of multitudes at the gathering of the manna and the return of the spies with the great bunches of grapes, which seemed large enough to furnish wine to satisfy the thirst of all the excursionists on a Rhine steamboat. Then the little chamber was shown, and the biblical incidents were repeated almost word for word. There was little talking; everything was in action, and the thousands waited almost breathless, watching the scene. So close was the attention at some of the moments of pantomime that the mere rustling of a program seemed like a loud noise. Here Anton Lang proved his genius as an actor, but he did not have the power for pathos that followed later in the night in Gethsemane.

Back strode Josef Mayer, leading his choristers, and after Joseph's brothers had sold him in pantomime Judas did the same thing for his Master before the Sanhedrin, and the little party started forth for the betrayal. But before that comes there are double pictures, one showing the toil of Adam after the curse, and the other the treachery of Amasa. Then the curtains were drawn, and the dark depths of the Garden of Gethsemane were revealed. Christ entered with his disciples, and left a part at the gate, to watch while the chosen ones came nearer. They, too, fell asleep, and Christ had to express the depths of utter despair and loneliness which he was feeling at the hour of his trial. The words were few, but by his look and walk Anton Lang succeeded in producing an effect that must ever linger in the memory of those who saw it. It was great acting, and when one considers that it is given by a twenty-five-years-old potter from the mountains of Bavaria it is all the more remarkable. Outsiders approach. The betrayer is at hand. The fatal kiss is given. The Master is dragged in custody. As the curtains close together there is a stir among the audience, and one realizes that the first half of the "Passion Play" is at an end. The spectators had been sitting there without intermission for nearly four hours, for there was no going out between the acts, since the instant one episode was over the omnipresent chorus was ready to troop on to introduce something else, so that this was the first opportunity that one had of stretching tired legs and straightening cramped backs. In the hour and a half intermission all had a chance to go to their lodging-places for dinner, but nobody was late at quarter past one, when the last half of the performance was entered upon. Tableau and action followed each other in quick succession, as they did in the morning half; but there was one part of the play which was so vivid that it dwarfed everything else in the entire play, and made the remainder of the afternoon seem insignificant to the spectator by comparison. It was the march to the cross, which was, without question, the most impressive dramatic episode that could be presented. It is doubtful if any one could watch it with dry eyes, for even an atheist would be moved by the simplicity and pathos of these players of Oberammergau. If so, what can be said of these simple peasant men and women who had trudged over the mountains for miles to see the play, of the noble fathers whose very faces told the story of respect and admiration of their congregations, and of these hundreds of church-goers from England and America, who have helped to make up this Oberammergau throng?

A sad procession made its way up the little street at the extreme right of the stage. Heading it was the Man of Sorrows, staggering, fainting beneath the weight of the great

cross. We had been touched when we had seen him scourged, when the crown of thorns had been pressed down with brutal force upon his brow, but this was the culmination. A few steps onward and again he staggered, halting the procession of the thieves with their crosses, the soldiers and the jeering populace. At one side of the stage stood the mother and the sorrowing friends of Christ, but not a word was spoken. None was necessary. The substitute bearer was pressed into service, Veronica of tradition wiped the face of the Lord, and the sad procession moved out of sight.

Gloomy mantles of black replaced the gay colors of the choristers when they reappeared, and their interlude was one of intensest sorrow. In the pauses one could hear the ominous pounding of a heavy mallet just within; they were nailing the men to the cross.

When the curtain was drawn two crosses had been raised, and the third was all in readiness. How Anton Lang was ever fastened upon that cross must remain a mystery; apparently he was nailed there, and for what seemed hours he hung there with no other support than the nails, which seemed to pierce his hands and feet. And there he died, with a rattling of thunder and the wailing of the players, after which they took the body from the cross and laid it upon the ground; but even then the mystery of the stage effect was not solved. It was some ingenious stage trick—and rumor has it that one of the leading stage managers of Germany was for a long time in Oberammergau this spring—but it was perfectly done.

The crucifixion practically ends the play, for although the resurrection and ascension follow, they are brief episodes, and cannot arouse much emotion after the pathos that has gone before. When the last words were sung there was an outburst of applause.

Applause!

It would be as much in place as kid gloves on the monkeys in Central park, or hydraulic presses to compress the five-o'clock crowds at the Park-street station of the subway.

It was a well-meaning but imprudent part of the great audience that cheered, and the spontaneous outburst of hisses that followed taught the necessary lesson. It was much better to go out in silence and carry the lesson as far as possible until the ambitious venders of Oberammergau intrude upon you with their attentions. There is no Sunday closing here, and the shops are all open, and the hardest-worked people in the entire village are the vivacious venders who go bustling about with great steins of Munich beer hanging on their fingers. After the "Passion Play" beer and time-tables! The rush from town began at once. Everybody seemed to want to get away, and the dusty roads were filled with men and women on foot and in carriages, and the mad stampede at the station was the wildest that Oberammergau has ever known; and along the tables of the inns many of the players found liquid refreshment after their long day of arduous work.—Boston Transcript.

HOW LETTY FEATHERED HER NEST

BY DORA READ GOODALE

Letty Marsh had been called "spirity" from her childhood up, and it was commonly said of her that she didn't have red hair for nothing. Her clear complexion, delicate features and large blue eyes that flashed with fun or temper made her very pretty at twenty, but at thirty the features were a little pinched, and a line or two in her forehead showed that she had made acquaintance with that grim old lady Dame Care. She was the teacher at the brick school-house—only a district school, whose pupils were few and its sessions short—and after her mother's death (which occurred in the spring) she rented part of her cottage to an honest old couple named Bush, retaining only three rooms—a kitchen, sitting-room and bedroom. Here she had lived and "housekept," taking her meals all alone, for six or eight months before this story begins.

It was a wrinkled, bent yet commanding ing, and a sleety northeast storm was just setting in, when Letty, having lighted her own fire and filled the kettle, set out as usual to make a fire in the school-house. She had not far to go, and being a model of efficiency in all practical matters, soon had a roaring blaze, and was drawing on her old hood preparatory to a return when she caught sight of a well-known team at the watering-trough opposite. I say the team was well known, but for a moment she was in doubt as to the identity of the figure which sat like a statue of resignation beside the colored fellow on the front seat. "It can't be!" she murmured, under her breath; and then without further hesitation she flung on her shawl and hurried across the street, exclaiming, impetuously, "My, Grandma Dimond, wherever are they taking you such a day as this? You're blue with the cold already! You're not going away, are you?"

It was a wrinkled, bent yet commanding old woman who sat looking down at her, and the beautiful dark eyes, as full and bright as a girl's, showed that she was no cowardly or passive spectator at the drama of life.

"I'm not going far—only a little ways," she said, in a deep, quiet voice.

The schoolmistress' quick eyes now glanced over everything—the black hood and shawl, the wooden chest, the carpet-bag and paper bundle.

"It can't be they're sending you over there?" she cried, sharply.

"Yes, my dear, that's just where I'm bound for. Don't blame 'Lonzo—he's got a bad hand, and another man has taken his job, and he can't stand up against his wife. I didn't oppose 'em any. I'd hate to rile up Dianthy."

"Going to the poorhouse! You," cried Letty, "with your pride and independence, and after bringing up a family! Well, I never heard of anything so shameful! It's all that selfish, scolding, scheming daughter-in-law of yours, I know that! The poorhouse!" she repeated, with growing vehemence. "Why, the poorhouse is a disgrace to this town; it's farmed out to the lowest bidder, and there's a crazy man there, and a negro woman and her baby, and old Dutch Pete, and they say they all eat and sleep in one room."

"The Lord always has taken care of me—he always will take care of me," said the old woman, steadily.

"Perhaps he has—I don't doubt it. He's going to take care of you now. Sam, you hear me?"

"Yes, miss, I hears you," responded Sam, who was cracking his whip suggestively.

"Turn around this instant and take Mrs. Dimond to my house! She isn't going a step further—not one step! Poor-farm indeed! Not while Letty Marsh has two hands and a head."

Mother Dimond tried in vain to protest. Letty's spirit was roused, and she refused to listen.

"Right? I don't care whether it's right or not!" she cried, hotly. "You sha'n't go to the poorhouse if I have to take in washing and do it Sundays! I'll manage somehow—I don't know how—but at least you shall sit in peace in a decent room with no crazy men or scolding Dianthus to frighten you. It makes my blood boil to think of that woman! Now don't say another word, but let me lock the door here and jump in and ride back with you. It's no use to argue, for I always have my own way in the end, and it only ruffles me—you know I haven't got red hair for nothing!"

When the news was circulated that "Letty Marsh had adopted old Grandma Dimond" people shook their heads and pronounced it a "piece of dumb foolishness."

"Why, Letty hasn't got but one bedroom," said one. "She'll have to sleep in the garret, that's what she'll have to do, and garrets are cold and lonesome this time o' year."

"What'll they live on?" asked another. "Letty can't but just manage to make out as 'tis; she had a big doctor's bill to pay up when her ma died, and the red brick school-house ain't a bonanzy, not by a good deal."

"Letty don't know which side her bread's buttered on," declared a third. "There's John White—she refused him ten years ago for the sake of Harvey Dimond, and now he's a widower and she's an old maid, or next thing to it, an' Harvey gone nobody knows where, and John's ready an' waitin' to give her another chance; but he'll be terrible soured to see her takin' up with one of Harvey's relations."

So said the neighborhood gossips, and in all three instances they spoke perilously near the truth. Letty meanwhile made a trip to the village, and there perfected a plan which she proceeded to unfold to Mother Dimond as they sat cutting rags Friday evening.

"It's all settled, and we can begin to-morrow," she said. "You know there's a Woman's Exchange in town, and I've been there and found out all about it. It seems they have avalanches of cake, frosted and plain, and pies by the cart-load, but there's always a demand for salads, chicken broth, jellied chicken and little cold relishes that people can have on Saturday and Sunday nights, when their girls are enjoying their 'afternoons out.' I like to cook, and you can help pick the chickens, chop the celery, and do ever so many things. And you know Alonzo always goes to town Saturdays, so he can leave our basket at the Exchange. I shall get up before daylight to-morrow, boil one of my home-cured hams, and make veal-loaf and a batch of German kaffee-brod"—she thought that would take. "Now, don't say a word! I shall do my own baking betweentimes, and grow younger and younger, like one of Swedenborg's angels. A schoolma'am must have somebody to talk nonsense to, at least on holidays." And Miss Letty, to prove the point, kept up a fire of small jokes until Mother Dimond had time to recover herself. As soon as she could steady her voice, the elder woman said, fervently:

"I can't thank you, and it's no use trying; but when Harvey comes home he'll make it up to you."

The blood rushed to Letty's cheeks with that, and her blue eyes flashed in a way that explained the term "spirity," as she responded, with energy, that "There was nothing she wanted less, and that Harvey, in fact, was a subject that would not bear discussion."

Seven years had passed since Harvey Dimond, the tall, brown-faced young fellow for whom New England "wasn't big enough to turn around in," had left home for the West. He was no favorite with the neighbors, being as little inclined to "settle down" as a batch of half-risen dough; but his mother sympathized with his adventurous tastes in spite of her own narrow life, and sent him forth with her blessing. For a year or two letters came from him at irregular intervals, enthusiastic over the charms of Montana, New Mexico and Texas. A smart man could pick up a fortune in any one of these paradises, and when he came home it would be in a style to make the townspeople stare. Then weeks lengthened into months, and months into years, and not another line, not a syllable, good or bad, was received from the wanderer. His last letter, written from Oklahoma, had referred mysteriously to "having a stake in some dirt out here;" but the tardy home inquiries proved fruitless, and as reports of bloodshed and lawlessness in that distant territory found their way East, some said that Harvey was dead, others that he had gone to the devil. Only the mother's faith in her boy never wavered. Even Letty satirically "hoped he was enjoying his cowboys and bronchoes," and concealed her alternations of love and resentment, hope and despair, telling no one that his parting whisper to her had been "Remember!"

She did remember that winter, as she looked up from her labors on busy Saturday forenoons and saw his old mother sitting at the red-covered table, comfortable in a warm woolen dress and knitted cape, the string of gilt beads that she had worn from a girl about her neck, and her strong, wrinkled face bright with interest and contentment. Alonzo stopped in every week, always bringing some homely offering—a piece of spare-rib, bagful of rye-flour, or some little gift bought with an extra bit of wages; and he came down of evenings and sawed and split all their wood. His shrill-tongued wife also ran in occasionally to gossip, criticize and ask questions—that was one of Letty's trials. As for John White, instead of bowing and smiling as formerly, with an air of hopeful interest, he looked at her first disapprovingly, then with ill-disguised resentment; finally he boldly demanded what she meant by this ridiculous nonsense, demeaning herself and spoiling her chances by saddling her back with a helpless old woman who was better off in the poorhouse. It may be imagined how Letty's eyes blazed on this occasion, and how she relieved her mind in an answer full of spirit and eloquence, and afterward buried her face on Mother Dimond's bosom and had a good cry. So the long cold months crept past, and April came, and with April the Easter holidays.

Letty will never forget that Easter week as long as she lives. Orders poured in by the dozen, for there were many festivities in town, and her skill as a cook had gained her no small local reputation. Early and late she was in the kitchen, chopping and crumbing, beating eggs and compounding sauces, and "undressing and dressing" a long succession of fowls, until she declared that her nest was well feathered in one sense, at least.

"Drudge, drudge, drudge, that's always to be my fate!" she muttered, rebelliously, after scorching her apron, tearing her dress and upsetting the pepper-box into the flour-barrel; and only the sight of Mother Dimond's happy, unconscious face could make the prospect of such a future endurable. On Friday night an imperative call for two dozen chicken croquettes, to be ready the following day, put the crowning touch to a long list of engagements and effectually destroyed all hopes of getting a hat trimmed for Easter. She was up the next morning at four o'clock, and by seven had her work well under way. It was a warm, almost sultry day, and the door stood ajar, letting in delicious scents of fresh earth and lilac-leaves and showing a bit of the green yard studded with dandelions. As she hurried from one task to another, seasoning, tasting and consulting the oven, the clock and the cook-book, a rap was heard, and she looked up impatiently, to confront a gaunt-faced stranger standing framed in the doorway.

"Does Mrs. Dimond live here?" he asked, peering in curiously. "I want to see her on a little matter of business."

"She lives here, but she isn't well, and she hasn't come down yet," returned Letty, curtly.

"Never mind, I'll wait." And the stranger coolly seated himself on the bench by the door.

Letty was conscious that he was furtively watching her, and the knowledge that she "looked like a fright," with disheveled hair, flaming cheeks and floury arms, did not add to her composure. Finally, when she began to ply the chopping-knife, the man rose and said, pleasantly, "Won't you let me do that? You seem to have your hands pretty full."

"He looks very clean!" thought Letty, and she accepted his offer. "You don't live in town. Have you come far?" she said presently.

"Yes; all the way from Oklahoma."

"Oh, Oklahoma!" cried Letty, dropping a saucepan-lid with a clatter. "You don't know anything about—about Mrs. Dimond's son, do you?"

"I should say I did. That's what I'm here for—to tell her about him."

"Is he alive?" faltered Letty, turning ashy pale.

"Yes, he's alive. He's been in prison out there for five years."

In prison! Her old playmate—the restless, sanguine, hot-headed Harvey—in prison for five years! The floor seemed to heave up under her. She dropped into a chair, and the stranger went on, deliberately:

"He and his partner and another man got into trouble over a claim. 'Twas before the reservation was opened, but they were hanging round and staking off sections. It's a long story, but the upshot is the other man got a knife in him, and that knife was Harvey Dimond's. His own partner testified agin him. He was convicted of manslaughter, and sentenced for twelve years."

"Why didn't he write?" asked Letty, with a dry tongue.

"He was desprit with misery, and couldn't bear to let his folks know; he said he'd never come out alive, and wouldn't give his real name even for fear they should hear of it."

"I don't believe he was to blame. No, I don't believe he did it at all!" cried Letty, with a flash of conviction that startled herself. And just then the door swung open, and there was the old, bent figure, marked with toil and exposure and rheumatism, and the old, wrinkled face; and after a moment's pause a cry of joy echoed and re-echoed through the room, "Harvey! Harvey! My son! My son!" For mother's eyes, after all, were the keenest.

It was much later in the day—Letty having fled precipitately at the sound of that cry—when her own impulsive words were confirmed, and she listened to the sequel of Harvey's story. Five years after sentence was passed the wicked partner, finding himself dying, had sent for a notary, confessed his own guilt and exonerated Harvey. To make such reparation as was possible he left him the property that had caused the tragedy, now a part of a thriving town in the territory. It "came high," Harvey said, thinking of those five terrible prison years, but at least it brought him a round sum, enough to keep mother henceforth in ease and comfort; and having sold it, the exile, as he expressed it, made tracks for New England, forever cured of his passion for anything west of the Mississippi.

* * * * * * *

"You must be getting home, mother," Diantha said, comfortably seating herself solidly in the best rocking-chair one day some weeks later. "'Lonzo and I have been 'lotting on it ever since spring opened, and now Harvey's come it ain't quite the thing for him to be down here so constant. You've had a good visit with Letty, but I guess you won't either of you be sorry to make a change."

A slight smile puckered Mother Dimond's lips as she answered, mildly, "No, no, Dianthy; they won't hear to my leaving, and I guess it's the Lord's will."

"They! Who's they?" demanded Diantha, in a higher key, her round face looking indignation and alarm.

"Why, Letty and Harvey. They was talking last night out on the side porch, and I guess they're about concluded to go round to the parson's together, soon as school closes."

HOW BEADS ARE MADE

Bead-making has always been an important branch of the industry. From the earliest ages glass beads have had a wide circulation throughout the world, the Phoenician merchants probably being the first to use them as a medium of barter with the barbarous inhabitants of the countries with which they traded.

Many of the beads manufactured at Venice to-day are exact copies of those used by the ancients. At one time there were twenty-two furnaces in Murano employed in the production of beads alone, and over one thousand workmen were engaged in ornamenting beads by the help of the blowpipe. In the year 1800 there were made 562 kinds, with a vast number of varieties of each kind.

The Spaniards used beads for trading with the natives of South America when first they established themselves on that continent, receiving gold in exchange. Enormous quantities are to-day sent to Zanzibar and other parts of Africa, four hundred varieties being used for the trade in this locality. India, the Eastern Archipelago and the Polynesian islands take a large proportion of the exportation.

The Ashantees and other natives of that part of Africa which lies near the gold coast set great value by the "aggry" beads, which are colored and usually of opaque glass, with great variety of coloring and designs.

The manufacture of beads is carried on in separate factories, set apart for the purpose. In every instance the workman makes a gathering of the heated mass on the end of his blowpipe and blows into it until it assumes an elongated shape. An assistant then comes with a pontil and sets it fast to the end opposite that attached to the blowpipe. This done, the two men walk backward from each other at a lively pace, almost a run. This spins out the globe into a thin, attenuated tube thirty or forty yards in length. The tubes are so small they cool quickly, and do not need fanning, as do the larger ones. They are spun out over long ladders, upon which they rest when finished. The shape

given to the mass of glass is retained by the tube after extension. By molding the sides of the mass so as to convert it into a square or triangle, or by flattening the sides to form an oval, the resultant cane or tube retains a square, triangular or oval form.

The lamp, or blowpipe, consists of an air-jet, a gas-jet and a pair of foot-bellows, or of a gas-jet, an oil-lamp and a mouth-blowpipe. The tube or cane can speedily be rendered ductile by the intense heat of the blowpipe flame. A mass of molten glass attached to the blowpipe is pressed into a circular, open mold, around the inside of which short lengths of fine white or colored enamel cane are arranged in niches cut for the purpose. The mass is withdrawn, with the canes adhering to the surface, and after being marvered, to effect amalgamation, is drawn out into a tube or cane, which is cut into beads. If short lengths of the variegated cane produced as described be substituted for the plain white or colored canes the section of the resultant cane will bear some resemblance to a flower. Pretty effects are obtained by incorporating the sections of flower cane in the body or bowl of a wine-glass and surrounding the artificial blossoms with engraved foliage.

When a sufficient quantity of tubes are made they are broken into short pieces, about a yard in length, and carried into a room where there are dozens of girls sitting at tables or benches, each one with a small machine before her. A bunch of the tubes is put into a slide, which is moved by hand under the knife, edged with teeth set far enough apart to cut the tubes into bugles of the required length.

Small beads are made in the same way. In another room men clean some of them by putting a quantity into a sack with fine sand and shaking them back and forth gently, which clears the tube of dirt and polishes the outside at the same time. After this they are sorted by running them through colanders with graduated holes. This operation finished, they are tied up in great bags and sent out to girls and women, who thread them on coarse cotton and tie them in bunches. There is scarcely a house among the poorer people in Venice where there is not more or less "threading of pearls," as it is called. Women who wait in small shops invariably have a wooden tray filled with beads, which they string and bunch between the visits of customers.

Twenty or thirty long, fine needles about the length of knitting-needles are threaded and held in the hand, like the sticks of an open fan. These are thrust down into the mass of beads and brought up more or less filled with the bright particles of color; again and again they go down into the depths until the needles are full. The beads are then slipped off onto the thread, and the process is repeated until the string or bunch is complete.

Other beads are made of rods or canes of glass, of the color and quality desired, which are drawn out, either pierced or unpierced, of opaque, colored or enameled glass. Some transparent ones have complex patterns produced by the twisting of threads of colored glass through a transparent body. This is particularly characteristic of Venetian glass, cups, bottles, vases and other articles made of these rods. When they are used for beads, pieces the right size are pinched off or cut with the machine and decorated by hand.

Imitation pearls are another branch of the glass industry. They are coated with a polish made from the scales of a fish, and filled with wax, to make them heavy.—New York Tribune.

MANILA WOMEN LAPIDARIES

The lapidaries of our new Oriental possessions are the dark-skinned women of the Tagal tribe, who have acquired their skill and ingenuity in gem-setting from the artificers of Spain and Morocco. In delicacy of design and execution their work far surpasses that of their masters. Much has been written about the coral jewelry of Manila (pink coral necklaces, white coral pendants, and red coral rosaries, like drops of blood), but the impression should not be gained that the lapidary art of the Manila women jewelers is confined to coral products. Pretty and characteristic as these objects of adornment are they do not compare in value and beauty with the chains of woven gold, filigrees of silver and pendants of pearls and garnets made by these women. Diamonds, amethysts and similar stones are not often met with in the native jewelry of Manila; but their rarity is not known, even though they are almost entirely lacking in the trinkets of the natives and foreigners in Manila.

Only native gems and minerals, such as garnets, black, yellow and white pearls, coral, mother-of-pearl and gold and silver, are utilized by the women jewelers. All of these island gems are found in the small shops of the native jewelers, and the manner in which they are worked up into ornaments of striking beauty and value attracts the attention of an American. A recent importation of many of these most popular Manila ornaments gives promise of their wide introduction into the United States. The specimens brought to this country, all the work of women artificers, show that the native lapidaries combine the ability of the Moorish gem-worker with the patience of the Chinese and Japanese craftsmen. Among these specimens are beautiful and exquisite ear-rings, necklaces, bracelets, chains, buttons, pins and brooches of every conceivable design. The chains are made of the most delicate strands of almost pure native gold braided and woven like a piece of Manila-hemp rope, with even the tiny threads imitated to perfection. So delicate and dainty is such a chain that one can hardly believe it possible that the women lapidaries beat out the rough gold and draw the gold wire without any of the modern instruments used by Western gold-beaters.

Hat-pins of pure gold are made in the form of miniature Malay creeses, with water-lily leaves for handles. Breast-pins and stick-pins are often thickly studded with stones. Silver and gold filigree-work, lace-like in appearance, is made with rare skill; other products of the women jewelers are necklaces and pendants of dainty gold ferns, flexible and yet strong, with every stem and vine veined exactly as in the original plant. Knives, brooches and pocketbooks are cut out of mother-of-pearl and thickly studded with green and red garnets. Black and white pearls are set in gold buttons and ear-rings. Like most of the Oriental craftsmen, the Manila lapidaries are expert in enameling, an art which they combine with their other work with excellent taste. The necklace may be of gold, enameled blue, and set with gray pearls, or of black enamel studded with red and green garnets. Few of these jewels are imitations. Nearly every woman lapidary strives to give an individuality to her work, and her products are proof of her success. The treasures of one shop can rarely be duplicated in those of another. Sometimes the conception may be a little crude and lacking in taste; but where there is one such example there will be a dozen that are perfect in every particular. The harmonizing of colors and combining of stones and metals show an instinctive taste among these illiterate Manila lapidaries which is difficult to explain. From the standpoint of the American jeweler there is much in the way of originality and perfection of design and execution that can be learned from these women of the Orient. In all the art they display something of the dark, sinister Moorish is always suggested, something that is felt in the abundance of Malay creeses, green and golden alligators, dragons and knives of every design and color.—Scientific American.

WEALTH OF THE WORLD

In 1896 the aggregated wealth of the world was $337,877,000,000.

The United States was the wealthiest, $78,480,000,000.

Great Britain was second, $56,669,000,000.

France was third, $46,512,000,000.

Germany, $38,650,000,000.

Russia, $30,840,000,000.

Austria, $21,658,000,000.

Italy, $15,168,000,000.

In proportion to the inhabitants England led, with $1,450 an individual. Australia second, $1,229; France third, $1,210; United States fourth, $1,123; Denmark, $1,104; Holland, $878; Germany, $749; Italy, $485.

Comparison of wealth and debt in 1898 was as follows:

United States—Wealth, $81,750,000,000; debt, $1,890,000,000; debt, two per cent of wealth.

Great Britain—Wealth, $59,000,000,000; debt, $3,190,000,000; debt, five per cent of wealth.

France—Wealth, $48,450,000,000; debt, $6,070,000,000; debt, twelve per cent of wealth.

Germany—Wealth, $40,260,000,000; debt, $575,000,000; debt, one per cent of wealth.

Russia—Wealth, $32,125,000,000; debt, $1,630,000,000; debt, five per cent of wealth.

Italy—Wealth, $15,800,000,000; debt, $1,930,000,000; debt, twelve per cent of wealth.

France and Italy have debts six times as great, relatively, as the United States, and Great Britain twice as great. Germany is the only nation that is financially better off.

In 1800 less than a fourth of the money of the world was gold, less than a fifth silver.

In 1848 about a fifth was gold and two fifths silver.

In 1860 nearly a third was gold and a third silver.

In 1897 considerably more than a third was gold, less than a third silver.

In 1848 about a third of the gold of the world was coined and two thirds of the silver; in 1898 about two thirds of the gold and one third of the silver.

In 1897 nearly one fifth of the coined gold of the world was in the United States. Great Britain had a trifle more, and France and Germany a trifle less, than a fifth each.

In 1897 about a fifth of the coined silver of the world was in the United States. France had about as much. Germany had about one twentieth, and Great Britain about one fortieth.

ABSOLUTE IN HER HOUSEHOLD

The position of the Chinese woman in her own household is that which ought to be occupied by her sisters in every clime. She is left in absolute control of all domestic concerns and is given far more to say in the expenditure of the family income than is generally the case among our lower classes. It is true she owes obedience to her husband, but it must be recollected that this is equally so in our own country.—Washington Star.

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SELF-CONFIDENCE

SELF-CONFIDENCE without self-reliance is as useless as a cooking receipt without food. Self-confidence sees the possibilities of the individual; self-reliance realizes them. Self-confidence sees the angel in the unhewn block of marble; self-reliance carves it out.

Life is an individual problem that man must solve for himself. Nature accepts no vicarious sacrifice, no vicarious service. Nature never recognizes a proxy vote. She has nothing to do with the middleman—she deals only with the individual. Nature is constantly seeking to show man that he is his own best friend or his own worst enemy. Nature gives man the option of which he will be to himself.

All the athletic exercises in the world are of no value to the individual unless he compel those bars and dumb-bells to yield to him, in strength and muscle, the power for which he himself pays in time and effort. He cannot develop his muscles by sending his valet to a gymnasium.

The medicine-chests of the world are powerless in all their united efforts to help the individual uutil he reaches out and takes for himself what is needed for his individual weakness.

All the religions of the world are but speculations in morals, mere theories of salvation, until the individual realizes that he must save himself by relying on the law of truth, as he sees it, and living his life in harmony with it as fully as he can. But religion is not a Pullman-car, with soft-cushioned seats, where he has but to pay for his ticket and some one else does all the rest. In religion, as in all other great things, he is ever thrown back on his self-reliance. He should accept all helps, but—he must live his own life. He should not feel that he is a mere passenger; he is the engineer, and the train is his life. We must rely on ourselves or we merely drift through existence—losing all that is best, all that is greatest, all that is divine.

The man who is not self-reliant is weak, hesitating and doubting in all he does. He fears to take a decisive step, because he dreads failure, because he is waiting for some one to advise him, or because he dare not act in accordance with his own best judgment. In his cowardice and his conceit he sees all his non-success due to others. He is "not appreciated," "not recognized;" he is "kept down." He feels that "society is conspiring against him." He grows almost vain as he thinks no one has had such poverty, such sorrow, such affliction, such failure as have come to him.

The man who is self-reliant seeks ever to discover and conquer the weakness within him that keeps him from the attainment of what he holds dearest; he seeks within himself the power to battle against all outside influences. He never stupefies his energies by the narcotic of excuses for inactivity. He realizes that all the greatest men in history, in every phase of human effort, have been those who have had to fight against the odds of sickness, suffering, sorrow. To him defeat is no more than passing through a tunnel is to a traveler—he knows he must emerge again into the sunlight.

Man to be great must be self-reliant. Though he may not be self-reliant in all things, he must be self-reliant in the one thing in which he would be great. This self-reliance is not the self-sufficiency of conceit. It is daring to stand alone. Be an oak, not a vine. Be ready to give support, but do not crave it; do not be dependent upon it. To develop your self-reliance you must see from the very beginning that life is a battle you must fight for yourself—you must be your own soldier. You cannot buy a substitute, you cannot win a reprieve, you can never be placed on the retired list. The retired list of life is—death. The world is busy with its own cares, sorrows and joys, and pays little heed to you. There is but one great password to success—self-reliance.

The man who is self-reliant does not live in the shadow of some one else's greatness; he thinks for himself, depends on himself and acts for himself. In throwing the individual thus back upon himself it is not shutting his eyes to the stimulus and light and new life that come with the warm pressure of the hand, the kindly word and the sincere expressions of true friendship. True friendship is rare. Its great value is in a crisis—like a life-boat. Many a boasted friend has proved a leaking, worthless "life-boat" when the storm of adversity might make him useful. In these great crises of life man is strong only as he is strong from within, and the more he depends on himself the stronger will he become and the more able will he be to help others in the hour of their need. His very life will be a help and a strength to others, as he becomes to them a living lesson of the dignity of self-reliance.—Saturday Evening Post.

TRUE HOSPITALITY

Some of us are so situated that we cannot be hospitable in the common acceptation of the term. We have no homes where we may welcome friends and acquaintances. We look about us and see beautiful homes into which a guest rarely enters—large houses, perfectly adapted for entertaining, which remain closed to all but the home circle the whole year round; and we wonder why the large heart and the large house do not always go together. We grieve because we are denied the opportunity of being hospitable. But there is a sense in which the hospitable heart can manifest itself even without a house. We can be kind and generous to the opinions of those we meet, yes, even to their peculiarities and their weaknesses. We may not agree with their views, we may even feel that they are wrong or foolish, but nevertheless we can listen to that which deeply interests them, we can open our hearts to the confidences which it is a relief to them to give us. A young girl said, "It does me good to see Mr. Brown. He knows so much that I should be content just to listen to him; but somehow he always gets me to talking, and, what is more, he makes me feel as if he really enjoyed talking with me." Could she have better described a truly hospitably-minded person?—Congregationalist.

LOYAL TO HIS MOTHER

The late Dr. John Hall told of a poor woman who had sent her boy to school and college. When he was to graduate he wrote to his mother to come, but she sent back word that she could not, because her only skirt had already been turned once. She was so shabby she was afraid he would be ashamed of her.

He wrote back that he didn't care anything about how she went. He met her at the station and took her to a nice place to stay. The day arrived for his graduation, and he came down the broad aisle with that poor mother, dressed very shabbily, and put her into one of the best seats in the house.

To her great surprise he was the valedictorian of his class, and carried everything before him; he won a prize, and when it was given him he went down before the whole audience and kissed his mother, and said, "Here, mother, is the prize. It is yours; I would not have had it if it had not been for you."—Christian Standard.

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PEGGY

When Peggy takes her basket up
And off to market goes,
I'm stupefied to wonder at
How very much she knows.
She makes her way between the stalls,
And with judicial air
Decides this is "so and so"
And that is "pretty fair."

She knows if fish are fresh or not,
And, wise as any owl,
She differentiates between
A chicken and a fowl.
She thumbs the breast-bone of the one
And pulls the other's legs;
She squints her pretty eyes,
To test new-laid eggs.

The veg'table must be just right,
For with a critic's eye
She scans them, not inclined to pass
Their imperfections by.
She calls the market-folks by name;
Ah, what a lot she knows,
When Peggy takes her basket up
And off to market goes.

When Peggy does the marketing
My heart with pride she fills;
I go along, a useless thing,
Except to pay the bills.
—New Orleans Times-Democrat.

TO MY DOCTOR IN BED

With much regret I hear it said
That you, dear doctor, are in bed,
Quite invalided.
For you the uninviting fare—
The broth, the gruel made with care,
The milk—is needed.
I mourn, yet grimly chuckle, too,
When I think that not I, but you,
Should be a fixture;
Not I, but you, must sadly sip
With utterly unwilling lip
Some awful mixture;
Not I, but you, must now obey
What dictatorial doctors say,
So interfering!
—Loudon Punch.

REFORMING A PARROT

A Pittsburger who spent a part of last summer in England tells an incident which sadly disturbed the religious peace of a parish in Penzance. A maiden lady of that town owned a parrot, which somehow acquired the disagreeable habit of observing at frequent intervals, "I wish the old lady would die." This annoyed the bird's owner, who spoke to her curate about it. "I think we can rectify the matter," replied the good man. "I also have a parrot, and he is a righteous bird, having been brought up in the way he should go. I will lend you my parrot, and I trust his influence will reform that depraved bird of yours." The curate's parrot was placed in the same room with the wicked one, and as soon as the two had become accustomed to each other the bad bird remarked, "I wish the old lady would die." Whereupon the clergyman's bird rolled up his eyes, and in solemn accents added, "We beseech thee to hear us, good Lord!" The story got out in the parish, and for several Sundays it was necessary to omit the litany at the church services.—Current Literature.

THE GREATER FOOL

In olden times, you know, every king had a jester, whose business it was to keep his majesty merry by pranks and witticisms. A great deal of familiarity was allowed to these men, and princes sometimes were very fond of their jesters.

A story is told of a king who in a playful moment handed a wand to his favorite, saying, "There, keep that until you find a greater fool than yourself." One day the king became very ill, and seeing the jester among the attendants in his sick-room he summoned him to his bedside and said:

"I am going to leave you."

"Indeed, Your Majesty, how is that?"

"I am going on a journey."

"A short one, probably."

"No; I am going a long way off."

"But Your Majesty will return?"

"I shall never return."

"Then you have made all preparations, no doubt, and everything will be in readiness for you when you reach that distant land?"

"I have made no preparations; I am not ready."

"What! going on a journey from which there is no return, and nothing sent before you, nothing ready! Allow me to give back to you the wand I had from Your Majesty's hand; I have found a greater fool than myself."—Detroit Tribune.

STARTING RIGHT

"We are wedded now, my darling," said the husband to his bride, "and henceforth we'll go together on life's journey side by side. We must bear each other's burdens, help each other when we can, and to make life happier, brighter, each must for the other plan. Let's begin this very morning—to start right is my desire—just you get up now, my precious, and construct the kitchen fire." Sad, ah, sad his disappointment, courage oozed from every pore, when his sweet young wife responded, "Say, what do you take me for?" —Boston Post.

FAR-SIGHTEDNESS

In a certain diminutive city flat the wall-paper had grown very dingy, but the landlord had persistently refused to replace it. At last the tenant said to his wife:

"It's no use, Julia; we shall have to put on some new paper at our own expense."

"And take all the trouble to scrape off the old?"

"Certainly not. We'll put it on right over the other."

"John! And make the rooms smaller still!" Christian Endeavor World.

ITS USE

Two Irish reserve men, who went into a hatter's to buy a hat, were delighted with the sample shown them, inside the crown of which was inserted a looking-glass.

"What is this glass for?" said Pat.

Mike, impatient at the display of such ignorance, exclaimed:

"What for?" said Mike. "Why, for the man who buys it to see how it fits him."—Cleveland Plain Dealer.

FROM FORCE OF HABIT

An absent-minded professor was sitting at his desk writing one evening, when one of his children entered.

"What do you want? I can't be disturbed now."

"I only want to say good-night."

"Never mind now; to-morrow morning will do as well."—Spectator.

HAD READ ABOUT IT BEFORE

Mrs. Rakestraw—"So you've finished readin' the biography of that statesman. Well, what did he finally die of?"

Rakestraw—"Why, of this here new disease that we read about so much lately. I see by the heading of the chapter that the last thirty pages in the book is about the appendix."

STILL MORE SO

Oh! now in the car, at the sermon or play
We think of Moore's lines, in a paraphrased way:
You may air, you may fumigate furs if you will,
But the odor of moth-balls will hang round them still.
—L. A. W. Bulletin.

THE FLOWER OF THE FAMILY

He thought it safer to write to the girl's father for her hand. He was an ardent lover, but a poor speller, and his note ran: "I want your daughter—the flour of your family."

"The flour of my family is good," replied the old man; "are you sure it isn't my dough you're after?"—Yonkers Statesman.

RETROSPECTION

Friend—"I suppose you grieve very much over the death of your husband?"

Mrs. Snooks—"Indeed I do. If I had utilized before he died the tears I've shed since he died I'd have had half a dozen more dresses than I've got now."—Spare Moments.

THE SOURCE OF A GREAT ANNOYANCE

First cook (reading)—"Wanted, to go to Connecticut, a first-class cook. Good wages."

Second cook—"Niver on your life! Sure, isn't that where they make alarum-clocks?" —Jewelers' Weekly.

SWALLOWING YARNS

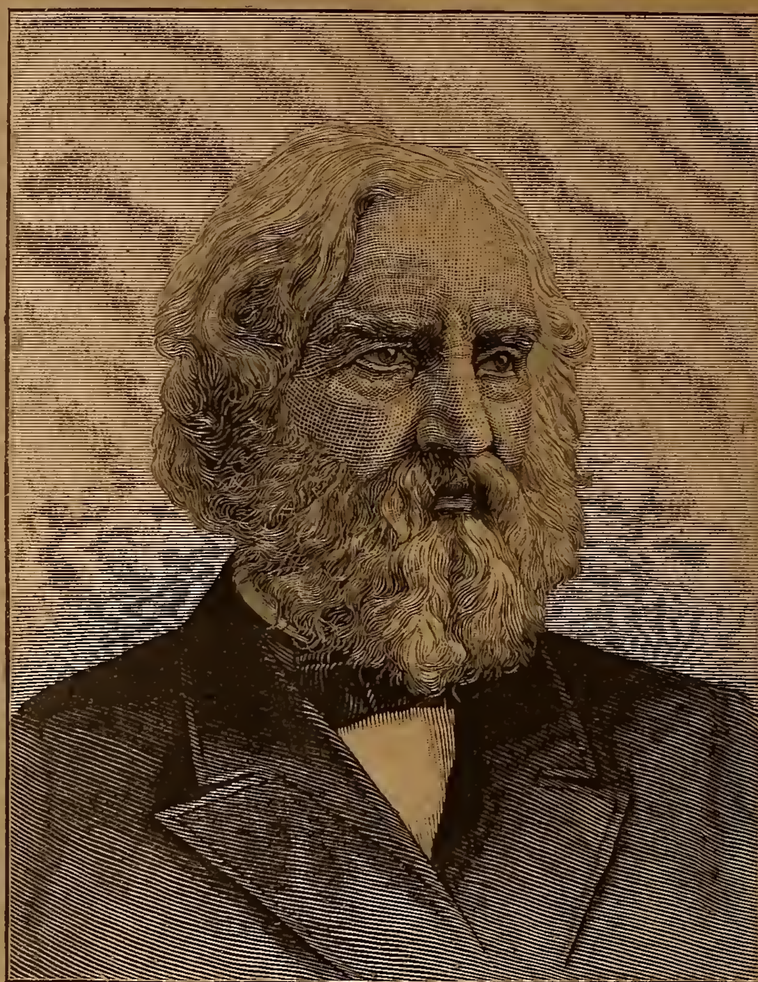
Mother—"Dear me! The baby has swallowed that piece of worsted."

Father—"That's nothing to the yarns she'll have to swallow if she lives to grow up."—Spare Moments.

ENCOURAGEMENT

He—"No, I can't afford to marry."

She—"Why? I'm sure the tailor would trust you for a dress-suit if you mentioned papa's name."—Detroit News.



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FARM SELECTIONS

THE INTRODUCTION OF HUNGARIAN AND MACARONI WHEATS

Mr. Frederick V. Coville, Chief of the Division of Botany, has furnished the "Crop Reporter" with the following article on this subject:

In its work of introducing valuable seeds and plants from foreign countries the Department of Agriculture is now engaged, among other things, in securing good stocks of the best varieties of European and African macaroni-wheats and Hungarian bread-wheats.

Formerly all the macaroni consumed in the United States was imported from Europe, but recently macaroni-manufactories have been established in this country. The manufacturers have found, however, that consumers prefer the imported product, and it has developed that the European macaronies are made from a peculiarly hard-grained type of wheat which we have not heretofore produced in the United States. American farmers have been growing, of course, the wheats that they could market most advantageously, and these have been the wheats suitable for the manufacture of bread and pastry flours. The macaroni-wheats which are now being imported by the department in experimental quantities will, it is expected, furnish the basis for a great extension of the macaroni-manufacturing industry in the United States, and will create a demand for the production of the macaroni-wheats in those parts of the country to which the experiments now in progress show them to be adapted.

Hungary, it is well known, is the home of the roller process of grinding wheat, which has now been adopted in the flour-mills throughout the United States. Hungary is also the country in which is manufactured a flour of such shipping and bread-making qualites as to give it in some of the markets of the world the highest reputation and price of all export flours. The wheats from which this flour is manufactured are not grown in the United States commercially, but the experiments thus far made with them indicate that they will maintain their high bread-making qualities here. Now, a point of special interest regarding these wheats is that they are winter varieties, while the best bread-wheats of the United States are spring varieties, the area of whose successful production is very limited and whose yield is comparatively light. The indications now are that the Hungarian winter wheats can be successfully grown over a many times larger area than our high-grade spring wheats; that the yield to the acre, while not at present so great as that of many of our ordinary winter wheats, is superior to the spring varieties, and that the peculiar qualities possessed by these foreign wheats in Hungary are maintained in the United States. The increasing trade of this country in export flour, the enormous possibilities of that increase, the high quality of Hungarian wheats for this class of trade, and the great extension of the area of profitable cultivation, need only to be mentioned to convey an idea of the importance and significance of a successful outcome of this work of introduction.

SEED-SOWING

It should not be forgotten in sowing vegetable-seeds, and, for the matter of that, all seeds, that they must have air, moisture and darkness in order to sprout properly. If sown deeper than they desire they rot; if too shallow the light is too intense or they do not get moisture enough. As a rule they should be as near the surface as possible, with the rather dry earth packed around them as firmly as possible. The surface earth should be rather dry or it will not powder well—and this is important in connection with air. There is no air in a soil pressed when wet—but the more dry earth is pressed and pounded the finer and more porous it becomes. There is a great art in getting seed to grow properly—and yet the art is very simple when the principles are understood.—Meehan's Monthly.

GOAT-BREEDING

We recently referred to a pamphlet issued by the Department of Agriculture on "Keeping Goats for Profit." This pamphlet is reprinted from the yearbook of the department for 1898, and gives the facts favorable to the feeding and breeding of goats. The author, Mr. Almont Barnes, states that in the year ending June 30, 1898, $15,776,601 worth of goatskins were brought into this country. He says that practically all the goatskins used here are imported. He says there are about 500,000 goats now in this country, mostly in the dry lands west of the Rocky mountains and in Texas. He gives a statement of the products that may be obtained from the goat, and it must be said that the list is exceedingly large. He also says that there is hardly a state in the Union where the Angora goat will not thrive. We know personally of one herd in Connecticut that is giving good returns, and it has proved very useful in keeping pasture-land clear of brush and young timber. Certainly the arguments advanced in this pamphlet are plausible and forcible, and it may be that there are places in the country where the Angora goat would prove profitable, perhaps more so than sheep. It must be said, however, that Americans have not taken kindly to goat-breeding, and it will probably be many years before this country supplies all the goat products it consumes.—Rural New-Yorker.

SWEETEST SPOT ON EARTH

The farm was not quite paid for. Early and late the father and mother toiled, living sparingly, growing daily more silent and stern. The two sons, aged twelve and fourteen years, worked as steadily almost as the parents, but the silence and the repression wore upon their young hearts, and by degrees they became discouraged, then dissatisfied with their home.

It was a terrible shock to the busy, preoccupied father when by chance he overheard the two boys planning to leave home; and it did not take him long to shape plans whereby the whole atmosphere of the place was changed. His two manly sons were more to him than all the farms in the world.

From a silent, apparently unsympathetic man he found it worth while to become once more a boy, interested in all that interested his two boys, full of pranks and jokes, brimming over with fun, a treasure-house of tales of the long ago that were far more thrilling to the bewildered boys than a dozen longed-for books of adventure.

The mother brightened up the dreary home, bought some books and subscribed for more papers. She smiled now, even when her heart was heaviest, and drew near to her sons in a way she had never had time for before. And the boys promptly adjusted themselves to the new conditions of the home, and voted it the sweetest spot on earth.—Farm Journal.

LIME AND INSECTS

Lime, which is useful as a contact insecticide against soft-bodied insects like slugs or caterpillars, should be used dry, and may be either air or water slaked. Air-slaked lime should be sifted and dusted on as finely and thoroughly as possible. In this condition it will kill cabbage-worms, the slugs of the asparagus-beetle, many plant-lice and insects of the same general character. Water-slaked lime, as the dry hydrate, is prepared by adding just enough water to a barrel of stone or shell lime to slake and cause it to crumble into a dry powder. This is even more caustic than air-slaked lime, and therefore more effective against the insects previously mentioned. Lime in this form is of no use against hard-shelled insects. As an insecticide the application is rarely recommended. Lime should never be added to soap mixtures where the latter is expected to kill insects; but where the soap is to be used merely as a protective trunk wash the addition of lime has no bad effect. Lime applied dry to foliage will protect it from leaf-feeding insects in many cases.—Rural New-Yorker.

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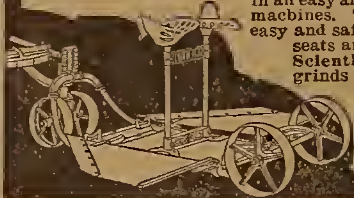

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