

of course could not accomplish the in as short a time as one fitted with necessary contrivances. But I saved the remainder of the herd much needless worry the attendants much fear. About the time I began dehorning all heifers the age of three weeks, with caustic potash simply removing the hair from the horn, button-like protuberances and rubbing with the potash after moistening the horn with water. It was quickly done, a little pain, soon healed, and did the work perfectly. A few cents' worth of caustic potash would dehorn fifty calves. Caution should be taken to wrap the horn with paper or cloth, for if you have sores or cuts on the fingers it will give more pain than the calf, because of the over development of your nervous system. Lately, however, I have used concentrated lye with even better satisfaction, it works more quickly, causes no soreness whatever, and does the work effectively. In the operation care must be taken to put on too much water, as it would run down and endanger the eyes.

In a number of applications I have never failed to accomplish the end sought, with exception, and with no evil results. The operation mentioned was in the case of a promising young Exile of St. Lambert, chased a little more than a year ago. He was a little too old at the time, perhaps, I have tried the horn-killing process, but I refused to dehorn him without the certainty of sawing them off in later development, I made the application on the horns already protruding. One horn was actually checked in growth, the other retarded. As time went on this horn developed slowly, and the young animal much delight in using it, showing his intention to be quite pugnacious. A few days ago this horn was quietly removed in the stall by the saw, and now he is as good as could be desired.

It is preferable to dehorn in calfhood by the chemical process. I do not enjoy the blood drawn, and such is unavoidable in any other process. The gouge is perhaps the most cruel method, and may be avoided as such, and the saw is only excusable when grown animals of recognized value are to be retained in the herd.

Having the younger cows and heifers dehorned, it was decided to use the saw on the last winter, which we could not afford to dispose of because of their value.

An expert was employed, and the work was quickly done. No effect could be noticed on the flow of milk for a time, but the course of a few weeks there was a perceptible increase, caused, no doubt, by the more complete quiet the cows enjoyed.

She had formerly been quite a tyrant over the others, and even at times dangerous to the attendants, yet so valuable as a butter maker we could not decide to sell her. Unusually fast in her stall she required the entire manger for her individual use, and I could not suppress a feeling of satisfaction when, going to the barn one morning, a few days after her horns were removed, to see her and seven others peacefully eating in one small manger. The time and length previously devoted to fighting is now devoted to the manufacture of milk, and the younger animals may eat, drink or rest in perfect freedom from disturbance.

It is not at all improbable that a few decades of dehorned cattle may result in a strain of hornless Jerseys, and the model will then have been secured.

JOHN L. SHAWVER.

RIGHTS AND DUTIES OF LABOR.

"In the sweat of thy face shalt thou eat bread," is a natural law which, when not respected, subjects a man to the penalty of disease, misery and premature death.

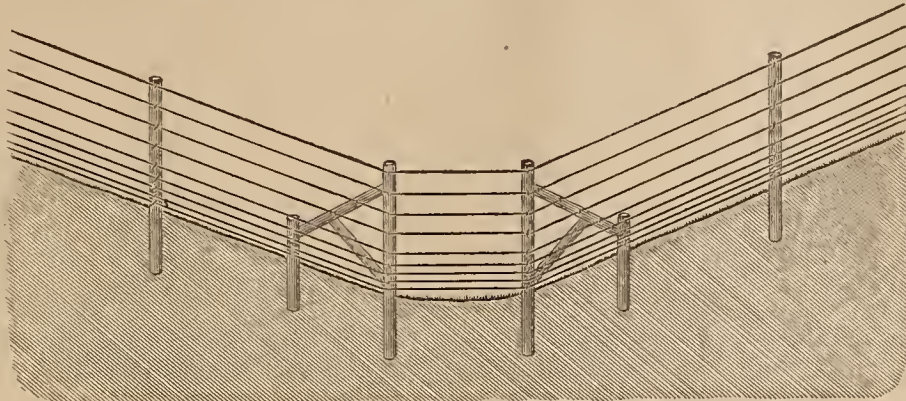
From this it follows that it is man's right to labor, and if he is by nature, or lack of education, unfitted to conduct a business of his own, he can, with his Maker at his back, demand as his right employment no others more fortunate.

Labor has a right to secure by honorable combination the largest pay possible, and demand for the individual in its ranks a proportionate pecuniary return from his work to enable him to support the wife of his home and those who, in obedience to the divine injunction to increase and multiply and replenish the earth, he may bring into the world without any will of their own. Labor has the right, as well as the power, in this country, to make and unmake laws; a right to insist upon it that the law be alike to the corporation and the freest man in its employ; and any fair man would concede it the right to secure laws that would benefit the toiler, as long

as those laws are secured by the use of the ballot or other legitimate means. In short, the laborer has every right that belongs to any man or set of men on earth, and should be encouraged in securing and maintaining them.

But these rights carry with them corresponding duties, which are as natural and divinely ordered as the rights themselves. Duties which it is the bounden obligation of every laborer to learn and make his rule of action.

It is the duty of the laborer to recognize the



CROSSING A HOLLOW.

right of an employer to have control of his own business; to remember that the master mind conceiving or conducting a great enterprise is worthy of respect; that in countries where the workman is not a slave the wonderful enterprises that make this country famous would be impossible without corporations; that although wealth is the result of toil, labor and capital are co-producers, having equal rights and privileges; that a contract between labor and capital is as binding upon the laborer as it is upon the capitalist; and that labor, after being paid for its services according to contract, has no right to claim part ownership of the works in which it was employed, notwithstanding the belief of a few honest cranks and the loud assertions of some political demagogues to the contrary.

It is the duty of labor to study the interests of its employer as well as its own, to move in harmony with the knowledge thus gained, and in case of strikes (which should very rarely occur) always to appeal to reason and law, never to prejudice and the firebrand. It is the duty of labor to shun the saloon as it would a pestilence; to transfer its enormous patronage of those warts on the body politic to savings banks or building associations, remembering that with the wages paid in this country there is no valid reason why all workingmen having good health should not be the owners of the properties they call home.

It is the duty of labor to guard zealously and with a jealous eye the public school system; to educate itself beyond the point where it would be capable of believing the appeals made to ignorance and prejudice by the average labor agitator—appeals which are in nine cases out of ten so much moral dynamite hurled at the very foundation of our liberties, our institutions and our laws—and to make haste in condemning a system demanding that a man be kept employed no matter how obnoxious he may be to an employer, simply because he belongs to "the union," and that seeks to guarantee to all workers in the same line equal pay, no matter what their individual abilities or attainments may be, as one that lowers the dignity of labor, insults its intelligence, annuls its prestige, robs it of its influence, kills its ambition, and gives the lie to its nobility.

It is the duty of labor never, under any circumstances, to interfere with the individual in his God-given right to earn his bread by honest toil, and to recognize that saying to a man who desires work, "You shall not because I will not," is cruel, anarchistic, devilish, and contrary to every principle of honor and right, a blow at liberty, a stab at human rights.

It is the duty of labor to honor and respect the government of which it forms such an important part; to be patriotic, to ennoble the individual worker, and maintain its dignity as a whole by respecting law and having regard for order, and to bear in constant remembrance the fact that breaking contracts, appealing to prejudice, interfering with trade, ordering boycotts, hobnobbing with anarchists, assessing men who are at work to maintain thousands of others in "masterly inactivity," swinging

the torch, using dynamite, wrecking railroad trains, destroying factories, defying authority, and taking human life are not among the recognized requisites to the prosperity of American institutions, or among the methods that sane, law-abiding men would adopt to crown the toiler with the honor and dignity of true manhood.

In short, it is the duty of labor to elevate itself, win divine approbation, and command the admiration of true men everywhere by assuming all and shirking none of the duties devolving upon men everywhere, as

well as to recognize the supreme necessity of ridding itself from the tyranny of its own leaders.—B. L. Beck, in American Miller.

TO ANCHOR WIRE-FENCE POSTS.

I have a good many wire fences on my farms, and more yet to build. I was troubled for a long while about how to anchor the end posts, corner posts and posts in low places, crossing hollows, etc. I send you drawings of the plan which I adopted, which is simple and perfect. If followed, there will be no more trouble about posts drawing up out of the ground. The plan is fully explained by the accompanying cuts. For corner of fence, use brace and anchor on each angle of fence.

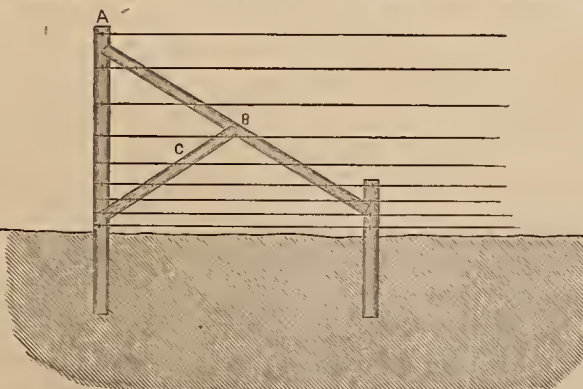
ILLINOIS. ALEXANDER BARBER.

THE BUSY BEE IN JUNE.

There must be promptness in putting on surplus boxes or sections whenever the hives become crowded with bees. Let there be starters of thin foundation placed in each of these sections, and the sections put into a section-holder. These holders are simply frames made according to the dimensions of the hive, of such depth as to equal the depth of the section, with slats sunk in the lower edges of the frame flush with its edges, and at proper distances for the ends of the section boxes to rest on. The holders may be put on the top of any hive, with or without a honey-board between them.

The manipulation of the bees to secure the greatest amount of honey is the great end to be attained this month. To accomplish this end successfully, the following hints will be in place:

Even in good seasons some apiarists meet with disappointment, owing to the error of allowing too great a space in the brood-chamber for the storing of honey. Whenever this is done there will be difficulty experienced in getting the bees to enter the supers or sections. This can be avoided by removing all combs from the brood-chamber that are not absolutely



END OF FENCE.

needed for breeding purposes. The number needed will depend upon the prolificness of the queen. Some queens will require eight or nine, while others will not use more than half that number of frames. My rule is to reduce the chamber to the number of frames that are actually utilized. Remove all frames filled with honey from the brood-chamber, filling up their places with dummies. These are simply frames with thin boards nailed on the sides. The bees will thus be crowded for room and will of necessity enter the supers.

After the season is over, the frames of honey removed at the beginning will have to be restored, and if they do not contain

ample stores for winter, feeding must be resorted to. The price of one pound of honey will buy, at the present price, several pounds of sugar. Hence the profit of securing the honey in the above way, though it may necessitate some sugar feeding.

Where plenty of old comb exists the same course can be pursued with new swarms. These can be confined on five combs for a brood-chamber with a section-holder filled with sections on top. Bees will, as a general rule, enter them and commence storing away the surplus nectar. Such colonies in the fall need more combs and plenty of food.

It can be inferred from the above that the queen is an important factor in securing a large honey harvest. Let no queen, except an imported or otherwise valuable one, remain in the apiary over two years. Young queens, like young stock of any kind, are superior to old ones. When colonies of desirable stock to breed from cast swarms, a good opportunity is then afforded to supplant all old queens with queen-cells from such colonies. This will secure young queens without expense. To avoid in-and-in breeding, it is well to introduce from time to time new blood. If the new strain is desirable, it will be beneficial to effect a cross. The following plain method of introducing queens will be found efficient: Make a wire cylinder five inches long on a broom-handle, by winding wire cloth once and a half around and fastening it with a thread of the wire to keep it in shape. Take it off and insert a cork or piece of wood in one end and fasten it with tacks. Cut out a piece of stiff honeycomb with honey sealed over, for the other end. Put your queen to be introduced in this cylinder and plug the open end with the honeycomb. Having captured and removed the old queen, place the cylinder with the new queen between the combs, holding it in position by pressing the combs together. Shut the hive and give yourself no concern about it. The bees will do the rest by liberating the queen through the end of the cylinder stopped with comb.—Wm. Ballantine, in Farm Journal.

STONES AND STONE FENCES.

There are persons still clinging to the belief, if their word may be believed, that stones by abrasion or erosion, wear and tear, furnish the land with some fertilizing material.

As these rocks, of the advanced age of ten million years, according to the authority of geologists, have lost so little of their bulk in this time, or since man came upon the earth, that it cannot be estimated, it may be assumed that what they have given off, even if it be a rich fertilizing material, which is doubted, does not or has not added enough to the fertility of the soil to be taken into account. At all events, the farmer with rocky land may as well fertilize as though there were no rock there.

It is a problem what to do with stones and stone fences. The amount of land covered and encroached upon by stone fences is simply immense. The stone fence on some farms takes up a strip of land four to six feet wide. With the careless farmer who lets his fences tumble, who does not mend, the land encroached upon may be eight or ten feet wide, and alongside are brush and a tangle of weeds and vines. Acres upon acres in New England and elsewhere are covered by stone fences, and in many cases these fences are of no use—serve no purpose; that is, the fences between mowing lots or cultivated fields.

One farmer, to get rid of these fences, dumped them all into a ravine, scooped a knoll, or hillock, onto them, leveled up, and as a result added more fertile land to his farm besides that occupied by the fences. But the farmer who determines to get rid of stones will get rid of them, and he must do so if he would bring all his farm into bearing. But it is hard work. If there be a place to bury them, the farmer hesitates about beginning such back-breaking work. With the wheel-drag, however, the work goes on at odd times and is soon over. There is satisfaction in having a farm free from stones and stone fences, a better looking farm, a more productive farm and a farm worth more in the market.

GEORGE APPLETON.

Hood's Cures

"Fourteen years ago I had an attack of the gravel, and since have been very seriously troubled with my liver and kidneys. I had no appetite and ate nothing but gruel. Had no more color than a marble statue. After I had taken three bottles of



Mr. D. M. Jordan.

Hood's Sarsaparilla

I could eat anything without distress. I have now fully recovered. I feel well and am well." D. M. JORDAN, Edmeston, N. Y. Get HOOD'S.

HOOD'S PILLS cure all Liver Ills, Biliousness, Jaundice, Indigestion, Sick Headache.

## Our Farm.

### GARDEN AND FIELD NOTES.

**THE HARROW.**—Whoever urges the free use of harrows, big harrows and small harrows, gives good advice. The harrows (smoothing-harrow, drag) can be made to save a great deal of labor, and often loss of crop. The narrow margin between winter and summer which we call spring, was this year especially small; much too small to give us a chance to plow and prepare the land in the proper way and in the time best suited for the work. Consequently, we had to plow, in some cases, when the soil was still a little wetter than desirable, and in other cases when already too dry to handle well. As a rule, the soil "worked bad," and came out in lumps. The free use of rollers and harrows had to be resorted to to get the soil in good shape. But even what was planted early, and apparently in good order, became packed by a late heavy rain, and baked with a hard crust by the hot sun following the rain. It really looked as if the early-planted peas, potatoes, sweet corn, etc., would have little chance to break through the crust. The smoothing-harrow drawn by one horse, however, opened an easy way. It breaks and pulverizes the hard crust better than any other tool I know of, and peas, corn and potatoes have no trouble to come up all right. I have just harrowed my early potatoes and late peas once more. How it discourages the small weeds, and at the same time how it stimulates the deep-rooted crops.

It is the small, annual weeds which we have to fear. They come up in such vast numbers, on neglected soil, that they threaten to choke out what we wish to grow. I have little fear of thistles. The harrow, of course, does them no harm; but they are limited as to numbers, and can be easily kept in check with the hand-hoe, or with sharp-bladed cultivators.

For such crops as peas, potatoes, corn, etc., I advocate and practice deep planting, for the very purpose of giving us a chance to use the harrow freely and thoroughly. For marking out the rows I use the Planet Jr. horse-hoe, with furrower and marker attachment. Strike out a straight furrow. I do this by setting a line of stakes, and let the horse be guided by them. The marker marks out the next row. Fertilizer is strewn into the furrows, and if for potatoes, we again follow with the furrower, mixing soil and fertilizer and deepening the furrow. If intended for sweet or other corn, or for beans, peas, etc., I do not press the furrower down quite so much, strew the fertilizer and plant the seed at once without going with the cultivator in the same furrow again. When the seed is dropped, we adjust the covering (hilling) blades, and the roller in place of the furrower, and then cover, the horse walking in the bottom of the furrow or trench. All this is quick work, but should be done well and with judgment. This leaves the rows somewhat ridged. I usually roll the ground with a one-horse roller, after planting. The next operation, about a week or ten days later, is harrowing once more. The smoothing-harrow, run in the direction of the rows, loosens the crust, if such should have been formed in the meantime, and kills all small weeds. I have harrowed potatoes when several inches high, and even on rather stony soil, and have never seen any but the most happy effects from the operation.

Our dealers in agricultural implements now offer a kind of harrow-cultivator; that is, a cultivator having a set of harrow-teeth instead of regular hoe-blades. With these you can run not only close to the rows, but even right through them at the earlier stages of growth, if you wish, without doing injury to potatoes and corn. But if you are not afraid of letting the teeth slide through the rows, you might as well use the smoothing-harrow, and do the work at a much quicker rate. For stirring the soil and killing weeds in potato and corn fields, after the plants have become too large for the harrow, or between rows of cabbage, beans, peas, etc., I use the Planet Jr. horse-hoe again; adjusting the narrow hoes (blades about one inch wide). These cut up the soil in good style, and may safely be run quite close to the plants; so close, indeed, that cutting out the thistles, if there are any, is about all the hand-hoeing required.

**HILLING OR LEVEL?**—The question whether to hill up corn and potatoes or

not is yet far from being definitely settled in the mind of the average farmer. Soil, season and depth of planting have some bearing on the subject. In average dry soil and an average dry season, I would rather have my plants rooted rather deeply, and keep the surface nearly level, in order to preserve the amount of moisture which is needed for healthy growth. When the seed potatoes are placed three or four inches deep, the crop will be produced just below the level surface, and the least trifle of hilling would suffice to cover up the stray specimen inclined to come through to the light. I invariably practice just this "trifle of hilling" at the last cultivation, for the double purpose of covering up the weeds just starting at the time that the size of the plants compels us to abandon further working among them, and also of indicating the exact location of the rows which otherwise might be hard to find if digging should be put off until the plants have entirely died down. But I do not see much use in hilling corn, especially not in the excessive fashion yet practiced by most farmers. Level cultivation is good enough for me.

**SWEET CORN.**—This year I had about an acre available for corn. My predecessor usually planted a number of acres in sweet corn for fodder purposes. The seed was planted thickly, and the stalks had to be cut before ears had formed. I do not think much of these sappy stalks. There is little substance in them. Ears should form, anyway, either to be utilized separately, or to be cut up with the fodder. Most people in my place would have planted the ordinary field corn. I have planted the whole acre to sweet corn. Good green corn always sells readily, at not less than ten cents a dozen. The crop requires far less labor than field corn, as we save the husking. All we have to do is to break off the ears when fit for the table, and take them to market. Sweet corn brings two or three times the money that you can make from ordinary field corn, and that is what we are after. In the fall I can buy what corn I want for my stock at fifty or sixty cents a bushel.

JOSEPH.

### THE VINELESS SWEET POTATO.

The vineless is a white potato, and a distinct variety, called also the "bunch" sweet potato. The Grant and Texarcana are different varieties altogether. I give a description of the vineless: Dark green foliage, thick and short vine one and a half to two feet long, and will not strike root on top of the ground. There is another variety with these characteristics. I had to send to Tennessee for my supply, and for some neighbors here, and pay four dollars per thousand by express. All the plants of this kind raised there are grown, sold and spoken for long in advance by customers at home, who know what these potatoes are. They are very shy sprouters, and will not sprout more than six hundred to eight hundred plants per bushel.

Clarke county, Ind. G. CAMERER.

### Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

#### PEACH-BORER.

This well-known pest, so destructive to orchards, is very widely disseminated. The parent insect is a moth having transparent wings and a slender body, and resembles certain wasps and hornets. The moths appear in the northern states from about the middle of July to the end of August; in the South, in some localities, they appear as early as the first of May.

The female lays her eggs singly on the bark at the surface of the ground. These are oval in form, are about one fifth of an inch long, and of a dull yellowish color. They are fastened in place by a gummy matter which the female secretes. As soon as the egg hatches, the maggot works downward in the bark, forming a winding channel, which is soon filled with a gum or jelly-like mass that exudes around the base of the tree. When full-grown, the larva, or grub, is over half an inch long and nearly a quarter of an inch in diameter. It is whitish-yellow in color, with a reddish, horny-looking head and black jaws. The grubs may be found of different sizes all through the fall and winter months; some quite young associated with others nearly full grown. During the winter they rest in the channels they have made, surrounded with gum.

In badly-infested trees, the whole tree may be girdled.

Occasionally this insect attacks the trunk and branches at some little distance

from the ground, but wherever it works the exuding gum invariably points out the spot.

When about to become a pupa, the larva crawls to the surface and makes a leathery, pod-like case, made from its castings, gum and silk, which is about three quarters of an inch long and of a brown color. This is formed in grooves in the surface roots, or if the soil is loose it may be formed an inch below the surface of the ground. In this condition it remains three weeks or more.

**Remedies.**—There are many remedies recommended, but the safest and best plan is to go over the trees in the early spring and again in the early fall, and cut out the borers with a knife. Some growers are successfully trying the plan of putting ordinary fine wire mosquito-netting around the trunks of the trees after taking out the borers. This netting is quite inexpensive, and will last for several years if given a heavy coat of paint before using. It should extend three inches below the ground. Washes of various kinds have been recommended for applying to the trunks, but are not generally effective. One of the best is made of soft soap and cement, containing a small amount of Paris green and carbolic acid. Another is an ordinary whitewash made by adding one fourth as much plaster of Paris as lime, to which is added a small amount of Paris green. If washes are used, they should be applied just before the time for the appearance of the moths, which may be ascertained by examination, and be kept renewed as often as necessary to keep the covering intact during the egg-laying period.

#### KEROSENE FOR BLACK-KNOT.

Repeated experiments at the Massachusetts agricultural college have shown the great value of kerosene as an antidote for black-knot, and I think that institution was the first to publish the results of its work in this line. The following extract from the *Rural New-Yorker* is confirmatory of the great value of this remedy:

"My next-door neighbor had several plum-trees bearing fine fruit, and all died covered with knots, but before dying I had secured a few sprouts and had some fine young trees, on which, when they were about six feet high, knots began to break out on the trunks some inches long. Having filled a small sewing-machine oil-can with coal-oil, I gave the knots a dose; they stopped growing, but in about a month a few more made their appearance and some old ones began to swell again. Then another dose finished them. The next year (last summer) a few spots appeared; they were treated before they broke out, and all the trees are now very thrifty, only scarred where the large knots were, as the knots died and fell off like loose bark, leaving dead spots over which the new bark is growing. If the trees are very badly affected, it is better to cut them down, they are so unsightly. The oil does not seem to have any bad effect on the sound part of the tree, but like all other medicine, too much might be injurious, but I'd rather kill it trying to save than let the disease have its way."

#### THE BEE NEIGHBORHOODS.

Continued observation has led to a quite general belief among our best horticulturists that bees are the main agents in the fertilizing of our fruit blossoms, and that neighborhoods well stocked with bees have, one year with another, better crops of orchard and small fruits than those wholly or nearly destitute of these busy workers.

This is called to mind by the following significant extract from the *Canadian Horticulturist*:

"I would invite any persons who may be incredulous on this point to visit in a professedly bad fruit year—say during August or the early part of September—the localities in which our apiaries are situated. Let them carefully view the country lying in a radius of two miles from the apiary itself, and they will find that in almost every case the fruit-trees are laden with heavy crops, while they will observe as they get farther from the vicinity of the apiary (supposing that not many bees are kept in the country around) that the fruit crops steadily deteriorate.

"I am convinced that so soon as bee-keepers and fruit-farmers begin to recognize the importance of the one industry in relation to the other, more prosperous times will be in store for both, and we shall not only hear of better fruit harvests, but of larger returns of honey, also."

### INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

**Time to Bag Grapes.**—J. C. M., McMinnville, Tenn. They should be bagged as soon as the fruit is set. Some grow-think they have greater security from rot bagging when they are in blossom.

**Grape Black-rot.**—A. H., Jamestown, I. They are probably troubled with a fungus disease called black-rot, which has frequently been referred to in these columns during the past year. The preventive to use on a large scale is Bordeaux mixture and carbonate copper, for directions as to using which see FARM AND FIRESIDE of March 1st.

**Crandall Currants.**—M. A. H., Lincoln Cal. The Crandall is not a reliable fruit-variety. Perhaps the flowers need insects in order to bear fruit; anyway, they are frequently nearly sterile. Then again, many common wild seedling black currants, not even so good as the Crandall, have been set out for it, and you may have some of them.

**White Blackberries.**—J. A. M., Shermans City, Mich. There are several varieties of blackberries which are whitish in color when ripe. One with this peculiarity, called Cryst white blackberry, is offered by the nursery trade. None with this peculiarity are prolific enough to make them worth growing; as the color, which is of a dirty white, is disagreeable.

**Wild-goose Plum.**—A. M., Moline, Ia. The foliage received has every indication of being that of the wild-goose plum, and the fact that it does not bear fruit is another indication of its genuineness. I take it that you have this variety isolated from other plums, or else near kinds that bloom at another season. It is quite well known among the growers of the wild-goose plum that it is impotent to its own pollen, and it must grow near other plums that blossom at its period of blossoming, or it will not be productive. The only remedy is to plant some other plum near your wild-goose tree. A variety that would answer for this purpose is De Soto, Weaver, Hawkeye, or any other kind of native parentage.

**Drainage for Fruit-trees.**—F. G., Irum, Utah, writes: "If a piece of loamy land, the water-table at the surface in spring, fall, and in summer it is four or five feet below the surface, how deep should it be drained for fruit-trees? Will they thrive well on such land after it is drained as a whole? Would not the clay subsoil be too high for the land to bring as early vegetable higher land?"

**REPLY:**—The drains should be laid so as to keep the water-table from four to five feet below the surface the year around. Peaches, quince, pear and some kinds of apple may do as well on such land as on upland, but fruits would do best on uplands, providing the high location is from one of better drainage. On high land the temperature is the most even and equable. The cold subsoil which you speak of is a positive advantage such fruits as the apple and quince, but must not have standing water in it. High land is generally better adapted to early vegetable than that which is low, but by ridging in autumn it might be used very satisfactorily for early truck.

**Osage Orange—Honey-locust—Catalpa.**—H. V., Hailey, Idaho, writes: "Will Osage orange grow here in Idaho? Our winters are rather long; frosts come in the latter part of September, and we have them as late as March. Of snow we have an abundance, and the mercury falls as low as ten to twenty degrees below zero. If they do grow—or rather, do not die—will they need protection by filling manure around them. I wish to apply the same question also to honey-locust and catalpa trees?"

**REPLY:**—I cannot answer your question to Idaho, but will do so for the northern part of the Mississippi valley, which has much the same climate as Idaho. The Osage orange, worthless north of central Iowa, and the honey-locust is little if any hardier. The catalpa is unreliable north of central Iowa, but in sheltered locations it will often last for a number of years even as far north as St. Paul and occasionally reach considerable size northern Iowa. I think the roots of it may winter-kill, but occasionally the top will die back to the ground in some locations, after which it will sprout from the roots.

**Budding—Fruit Book.**—E. F., Taler Oregon, writes: "(1) Will prune buds put on peach seedlings make as good trees as if budded on prune seedlings? (2) Is a budded apple tree as good as a grafted one?—Where can get a book of such information, and what the price?"

**REPLY:**—(1) For dry land, the peach makes very good stock for the prune, but is not desirable for moist or heavy land. Owing to the susceptibility of the peach to borers, the peach stocks should be budded as near as may be to the surface of the ground, so that transplanting the bud may be put at least three inches below the surface of the ground. When so treated they make very good stock and are used to a considerable extent. (2) For climate where all apples are hardy, as in the north of Oregon, a budded tree is just as good as no better than a root-grafted one. In severe climates, especially where the snowfall is often quite limited, root-grafted are much better than budded trees, because the roots are raised from seed, and many of the are quite tender and liable to be winter-killed. If left above ground, as they must be when budded; however, even in severe climate budding may be resorted to, to change the bearing of hardy trees. In good apple sections it matters very little whether the tree is made by budding or grafting. The one important point to think of is whether it is a good tree. I do not know of any book that will give you just what you want, but suggest that you get Maynard's "Practical Fruit Grower."

**EVAPORATING FRUIT**  
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**Our Farm.**

**ORANGE CULTURE ON THE GULF COAST.**

ANY inquiries reach me in relation to fruits that can be successfully grown here. I will quote, in reply, the words of the late Hon. I. F. H. Claiborne, who on the coast many years. He says: "The peach, pear, plum, pomegranate, pecan, apple, grapes of many varieties, strawberries, dewberries, blackberries, persimmon, mulberry, papaw or custard-apple, and melons of various kinds grow in profusion and yield abundant returns. On the sea-shore we find in addition the orange, citron, lemon, shaddock, jujube, fig, guava, olive, and occasionally the pineapple."

Regarding oranges, he says at the time he wrote he knew of orange-trees that had been bearing sixty years. Since then a severe freeze in 1886 destroyed most of the orange-trees as far south as the Florida coast, but there are now bearing orange trees along the coast.

Orange-trees in half a century in the Gulf states (save in some favored localities and fortunate situations) have succumbed to the rigorous touch of the frost. In the winter of 1879 the temperature fell too low for them. Some, however, survived. Again in January, 1886, a wave of unusual severity swept inward to the gulf, destroying nearly all the orange-trees down to the Florida coast. Some trees here and in southern Louisiana escaped. There were some remarkable escapes from the widespread catastrophe. There were groves along the coast, protected by bodies of water or by trees on their northern sides, that survived the disaster. Some remarkable exceptions are recorded, one of which came under the observation of the writer, and is worth mentioning.

I occupied a cottage during the winter on Berlin street, near Napoleon and Charles avenues, New Orleans, around which were a number of very fine orange-trees.

It was soon apparent after the frost that these trees were lost. In an adjoining place, at the corner of Berlin and Louisiana streets, stood a large number of orange-trees, none of which were seriously injured. The escape of these trees was a puzzle, and it was some time before it was solved. The explanation was found in the fact that immediately north of them stood the residence and other buildings of the owner. This circumstance, together with the additional one that the trees and warmth from the house fires were, to some extent at least, warmed by the icy atmosphere, saved the trees. There were like instances in that city of immunity from the effects of the freeze, and the trees were similarly situated. It was an important hint, and when reading the valuable "Treatise and Handbook of Orange Culture," written by the late T. W. Moore, of Florida, or that portion of it relating to the selection of a location for an orange grove, the circumstance referred to came vividly to mind.

A number of correspondents have asked me if it is safe to plant orange-trees on the coast. The best answer to such questions is to visit to the orange groves of a number of very intelligent and progressive gentlemen, most of whom reside at or are in business in New Orleans. A conspicuous instance is furnished by one who has at least probably the finest orange grove on the coast. It would be unwise for any one to go into growing oranges exclusively as a commercial venture, for in case of a destructive visitation of frost such as that of January, 1886, or later, when the trees are in bloom, failure in many cases is inevitable. But combining the orange growing with pears, grapes, figs and pecans, to say nothing of other fruits and vegetables, orange culture is recommended. A favorable location, with such protection as may be given to a grove (as will presently be mentioned), together with proper selections of varieties and subsequent intelligent treatment, will reduce the risk of failure to the minimum and result, no doubt, in much satisfaction to the owner.

Interviews with a number of the older residents along the coast relating to the cultivation of oranges, show that this most delicious and healthful fruit has been known here for many years. Indeed, it is believed that for at least one hundred years it was first introduced can doubtless be traced from colonial records. Certain it

is that not long ago it was an industry of no mean importance here. There are parties now living who have shipped hundreds of barrels from this section to the New Orleans market.

The history of the orange and of all of the citrus family of trees is one of much interest. Gallesio's writings on this subject are the best known. The information they furnish is valuable, but does not come within the scope of this letter. They reveal the high value placed on citrus fruit as far back as 1566, and show that the orange occupied the first place among fruits wherever it could be grown in Europe. "From the first it was valued," says Mr. Moore, "not alone for the beauty of its foliage and the quality of its fruit, of which the juice was used in medicine, but also for the aroma of its flowers, of which the essences were made. Essential oil is, in Europe, largely distilled from the tender shoots, rinds of the fruit and leaves of the trees. The most delicate perfumes and oils are obtained from the flowers. Marmalade is made from the sour fruit. Citric acid and concentrated lemonade come from the lemon, while the citron yields that delicate conserve bearing the same name, for which we pay high prices. Many of these products, delicate and truly valuable, can be produced on the orange plantation at comparatively little cost."

The orange is classed among the most healthful fruits which a beneficent creator has given to mankind. "If you would ward off sickness from yourself and family, provide each one with an orange to be eaten daily before breakfast." Such is the advice of one whose opinions are entitled to credit. The beauty, the excellence and the healthfulness of the orange entitles it to the highest consideration wherever it can be grown with reasonable certainty of success. Two or even three fatal freezes in half a century will not keep those who appreciate its merits from its cultivation. Many trees in fortunate situations survived the freeze of 1886. The lesson is a valuable one, and will not be lost upon intelligent and careful growers and lovers of this superb fruit. It is suggestive, also, to nurserymen and amateur growers alike. Hardy varieties, like the Satsuma, will be sought after, and new varieties, which will endure a lower temperature, possibly produced. The value of the orange is too high to permit its cultivation to decline while there remains a reasonable probability that it may still be grown in the perfection which has so long marked its cultivation on the coast. T. H. G.

Ocean Springs, Miss.

**EXTRACTS FROM CORRESPONDENCE.**

FROM WASHINGTON.—Lewis county cannot be excelled for fruit and berries. Hop raising is receiving much attention now; the acreage will be doubled this season. Grain and vegetables do well. Trains are bringing newcomers nearly every day. Our county is advancing in improvements rapidly, and timber has to give way for other industries. Fir timber makes good lumber, while cedar timber makes good shingles and posts, being of durable quality. Logs are found in timber lying on the ground with trees six feet in diameter grown over them, thus showing one hundred years' growth, and yet sound enough for shingles. Our markets are good. Butter is 30 to 35 cents per pound; eggs, 20 to 25 cents per dozen. We have lots of land that can be bought at reasonable prices, and a live man need not fear to come to Washington, as he can make a good living. B. B. P. Napavine, Wash.

FROM TEXAS.—We are out in southwest Texas, a sunny, summer land, where roses may bloom in the open yard all the year. Bee county is seventy miles southeast of San Antonio, one hundred and ninety miles west of Houston and forty miles from the coast at Aransas Pass. You will understand why our climate is mild better when I tell you that we are seventy-five miles south of New Orleans, about on a line of the orange-growing district of Florida. But the heat of our summer is tempered by the ever-refreshing sea breezes. We have had a good season, and all crops are assured this year. This is a great winter-vegetable country, which is a profitable industry for northern shipment. Almost all fruits except apples, including oranges, do well. Our leading farm crop is cotton. The staple is fine and yield heavy, because of the long picking season—July to December. Our country is very new and undeveloped. It is a natural range stock country, with green grass all the year, and it is only recently that the high pastures have begun to be cut up and offered to farmers in small tracts. Fine lauds are \$5 to \$10 per acre, easy payments. This is bringing in many good people. Bee county is a gently rolling prairie country, some open, some brush. There is timber enough for posts and fuel. The soil is a sandy loam, very fertile, resting on a red clay subsoil. The roads are hard and excellent. The county has two rail-

roads. Beeville, the county-seat, with 2,500 population, is a good, growing town; it has excellent schools, churches and society. Our climate is not only very mild, but healthful. The air is dry and pure. There are no swamps, stagnant water or malaria. There are fresh breezes from the salt sea. Many people with throat and lung troubles come here to get a new lease on life. What we want is good people to help us develop this grand, new country. Beeville, Texas. J. W. M.

FROM WASHINGTON.—The Kennewick valley is the extension of the Lower Yakima valley from the mouth of the Yakima down the Grand Columbia to the Union Pacific railroad. The lands opposite the mouth of the Snake river are in the warmest part of the state. We had less cold weather the past winter than any other part of the Northwest. Four weeks would cover the time that the snow covered the ground. When there was three feet of snow in the sound country, we had none. This is accounted for by the frequent occurrence of the chinook wind. The lowest point of the valley is about 330 feet above the level of the sea. Fine land can be bought for \$35 per acre. It can easily be cleared of sage-brush. Pork brings a higher price here than in any other part of the United States. Butter is shipped in from the East. The wheat-fields on the high hills within a few miles of this irrigated valley furnish wheat at a low price when it is needed. Peach-trees, one year old, of the finest kinds, can be purchased for four cents in this county; all other fruit-trees accordingly. The lack of rain does not prevent this being the greatest agricultural country in the world, for irrigation gives water whenever needed; and the dryness of the atmosphere makes this the best hop country in America. We have an abundance of the very best of well-water. Fruit, vegetables, wheat, rye, barley, oats, potatoes, onions, hops, tobacco, alfalfa, timothy, etc., do well here, as we have a variety of soils from alluvial to sandy soil. We have good schools. Lumber is very cheap, and good brick clay plentiful in the lowland below Kennewick, on the Columbia. The range is good above the canal, and extends over one hundred miles along these irrigated lands. Our early potatoes bring the highest price of any marketed in the state, because they are the first in market. We raise twenty-eight hundred pounds of hops to the acre; and one great advantage here is in raising ten to twelve hundred pounds per acre the first year. Kennewick, Wash. A. B. E.

FROM IOWA.—The county-seat of Madison county is Winterset, with a population of 3,000. Winterset can boast of as many good stores as any town of its size in the state. There are three banks, churches of all denominations, and as grand a court-house as any in the state. The soil is a deep, rich, black loam, adapted to almost all cereals that grow in this latitude. Small fruits and all kinds of vegetables grow in great profusion. Madison county has natural advantages which make it one of the best stock countries in the state. We have had several creameries built within the past year. Our native blue-grass affords abundant pasture for stock seven months in the year. Timothy, clover, red-top, alsike and orchard-grass comprise our cultivated grasses and clovers. Land that sells now for \$50 per acre could have been bought two years ago for \$25. This is no place for the renter, as rent is getting "out of sight." The renter has to pay from \$3 to \$5 an acre, cash. A great many renters are going to Nebraska and Kansas, where they expect to better their circumstances. Madison county is well watered with springs and creeks. She has all the stone she needs for building purposes. There is now and then a sawmill, but the best timber has been taken out. Our timber consists chiefly of white oak, hurr oak, red oak, black and white walnut, black and white hickory, hackberry, ash, all varieties of elms and some hard maple. Wages are reasonably good. Men who have families, so they can board themselves, usually get from \$25 to \$30 per month during the busy season. Harvest hands get from \$1 to \$1.50 per day, with board. Our harvest lasts from the first of July until the first of September. We are handy to market. We are only twenty-five miles from Des Moines, the capital of the state. There are some drawbacks here as well as other places. The climate is too much by extremes. The summers get very warm—often the temperature rises to one hundred degrees in the shade—and as fall comes on the thermometer gradually drops and drops until it gets clear out of sight, and stays there for three or four days at a time,

during the months of December, January, February and March; and April "won't spoil your hide," as the old saying is. Another great drawback for the poor man is that the land here is owned in tracts of 160 to 1,000 acres in one farm, making it impossible for him to buy or rent such large tracts. S. T. W. Winterset, Iowa.

FROM TEXAS.—Montague county is one of the group of Red river counties located in the northwestern portion of the state. The county is about equally divided between timber and prairie land. The soil is a rich, sandy loam, sometimes dark, and very productive of corn, cotton, oats, millet, rye, sorghum, sweet and Irish potatoes, vegetables, apples, peaches, plums, pears, apricots, cherries, grapes, blackberries, etc. Wheat on the prairie yields about twelve bushels per acre. Fruits, vegetables, berries and grapes grow to perfection and yield abundantly. Sometimes peaches get killed by a late freeze. This county will compare with the vine-clad hills of France or the golden shores of California. The timbered lands are best adapted to fruit and grapes; the prairie best to grain. Being located in the upper edge of the upper cross-timbers, we have about the last belt of timber north and northwest that is well adapted to fruit and vegetables, the country northwest of this being one vast prairie, not adapted to these products. We have a fine market from here to the Panhandle of Texas, and New Mexico and Colorado, which country is traversed by the Fort Worth and Denver railway. The main line of the Chicago, Rock Island and Texas railroad runs south through the county, crossing the Fort Worth and Denver road at Bowie, giving good shipping facilities in all directions. The timber here is mainly post-oak and black-jack oak, scrubby and low. Several small creeks run through the county, but they usually go dry in summer, except the larger ones. There is very little bottom or swamp lands along the streams. Good drinking-water can be had by digging from twenty to sixty feet; the water is clear, cool and well tasting. The altitude here is 1,100 feet, and we get a good south breeze all summer. The temperature is about an average of forty-one degrees in winter and eighty-three degrees in summer. There being no local causes for sickness, we enjoy as good health as in any portion of the country. Good public schools are conveniently located over the county; they run about five months in the year. State and county taxes are 65 cents per \$100. The county has a population of about 20,000; of that number there are only about sixty negroes. Our people are cosmopolitan. Hospitality is a noted feature of our society. We have none of the rough frontier element. Every man who conducts himself properly is welcomed, regardless of politics or nationality. I receive many letters asking me to state the best portion of Texas for a man to move to. That depends entirely on the kind of business he wishes to engage in, Texas being so large, having 274,356 square miles of territory, and the climate, soil, timber, minerals, etc., so diversified. A man should first decide just what he wants to do. If farming, what kind; if stock raising, what kind; and if merchandising, what line. But I advise all to come and see the country, provided they wish to make a change, and decide where they wish to locate, but never (unless you have plenty of money) pull up and come without knowing the objective point. Above all, beware of "real-estate boomers." They have done much to injure the state; they generally misrepresent in order to make their commission. Of course, the reader will not compare the honest real-estate dealer with the boomer. I would advise any one wishing to visit the state to do so in July or August, as at that time one can see the crops, the fruits and the dry weather. Bowie, Texas. S. P. B.

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Our Farm.

THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammonton, New Jersey.

CHEAP EGGS AND THE COST.

Eggs being low in price do not pay. Such is a frequent expression. It is only during the winter, however, that the prices are high, and the very low prices occur only during the summer.

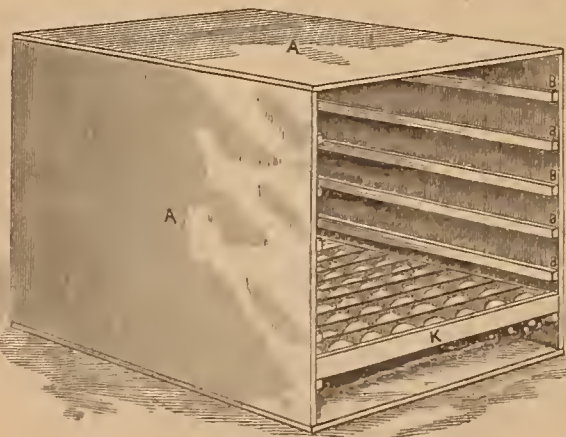
Eggs in summer, therefore, are produced for a very nominal sum, and on some farms they are produced at literally no cost whatever, the prices obtained being all profit.

POULTRY DISEASES.

There are but few diseases of fowls in summer. Cholera is very rare, as in many cases the disease said to be cholera is something else, roup and indigestion being frequently mistaken for it.

AN EGG-CASE.

For those who have eggs to save we give a design of an egg-case, by Mr. Thomas C. Pope, of New Jersey. It may be made of any size preferred.



AN EGG-CASE.

In the illustration, A A is the body of the case, B B B B are strips, one inch square, nailed four inches apart, on which the trays slide, and K is one of the trays.

a cool place. If eggs from hens not in yards with roosters are used, they will keep several months in this case.

GREEN FOOD IN SUMMER.

Green food is the natural food of fowls in the summer season. It is cooling, possesses all of the elements required, and is more readily obtained than any other kind of food.

If the farmer will economize with the food at this season, using no grain, he will find that his hens will keep in better health and condition than if they are fed on grain or other concentrated food.

There is an enormous waste of food in the summer by the lack of judgment in feeding. Grain is given lavishly, when in fact it is the most unsuitable food that can be allowed during warm weather.

SITTING HENS AND NESTS.

When the sitting hens leave their nests before the hatch is due, it is an infallible indication of lice, and the nests should be taken outside, cleaned of the contents, the material burned, and the nest-boxes swabbed with kerosene.

WATER-TROUGHS.

A fountain may not hold enough water in summer. The best mode of supplying water during warm weather is to have a large trough, which may be made of boards.

LICE AND WARM DAYS.

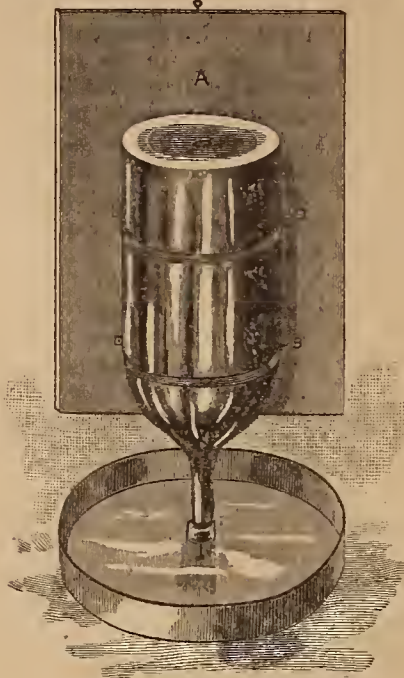
It requires but twenty-four hours for a poultry-house to be overrun with lice when warm summer days occur. The importance of keeping the house clear of lice is, therefore, apparent.

I Cure Dyspepsia, Constipation and Chronic Nervous Diseases.

Dr. Snop's Restorative, the great Nerve Tonic, by a newly discovered principle, also cures stomach, liver and kidney diseases, through the nerves that govern these organs.

BOTTLE DRINKING-FOUNTAIN.

An inexpensive drinking-fountain may be made by fastening an ordinary quart bottle to a board, as shown in the illustration, A being the board and B B the clamps which hold the bottle in place.



BOTTLE DRINKING-FOUNTAIN.

flowing out of the bottle only as it is lowered by the drinking of the water by the fowls. If preferred, the clamps (B B) may be attached to a post or to the wall, and the bottle removed from the clamps when filled.

AN EXCELLENT REMEDY FOR LICE.

On wash-days save the soap-suds, and to each tub of the suds add one or two quarts of kerosene emulsion, the method of preparing which is no doubt now well known, as it has been given to our readers frequently.

MOULTING HENS.

This is the time for some of the hens to begin to shed their feathers, which is known as "moulting." Bear in mind that the early moulting hens are the ones that lay in winter, as they finish the process before winter comes on.

A DUST-PIT.

Dig out a place about a yard square and a foot deep, and sift the dirt back into the pit. This will provide an excellent dusting place for the hens, and will cost but a few minutes' labor.

HIGH ROOSTS.

High roosts will injure the feet of the fowls, and also cause lameness. This is especially the case if the hens are fat. There is no advantage in a high roost, especially as it is just as easy to construct the roosts so as to afford more comfort to the hens by having the roosts near the floor.

CORRESPONDENCE.

OATMEAL FOR POULTRY.—Oats are cheap, and can be procured in the ground condition or as whole grains. They are most serviceable when ground, but contain a large quantity of refuse. The better plan of feeding ground oats is to sift them, using the finer portions for chicks and the coarser for fowls and grown stock.

soft. Before adding the milk, mix with the dry meal a teaspoonful of ginger, red pepper and three teaspoonfuls of ground bone, linseed-meal and ground oyster-shells. Mix the whole thoroughly and feed to young chicks morning and night as much as they will eat up clean, and they will have a perfect food, will grow, keep healthy and be subject but little to disease.

Marietta, Ohio.

INQUIRIES ANSWERED.

Lice and Scaly Legs.—W. W. Swanton, Ohio, writes: "Are lice usually found on scaly legs, and what is the remedy in such case?"

REPLY:—If the legs of fowls are covered with the scale, the lice will find harboring-places on them. The remedy is to oil the legs once a week, a mixture of one part kerosene and three parts of sweet-oil being excellent.

Lameness.—Mrs. M. L. writes: "I noticed that some of my fowls are affected as though their feet were very tender, a puffy swelling appearing on the bottom."

REPLY:—It is probably what is known as "bumble-foot," usually caused by high roosts, which injure the feet when the birds come to the ground, especially if they are fat and heavy.

Egg-eating.—S. S. Barton, Wis., writes: "Please give a method of breaking hens from the egg-eating habit."

REPLY:—Use covered nests that are raised from the ground. A soap-box, open at one end, will answer. The object is to compel the hens to sit on the nest, and not stand. Raising the box from the floor prevents the hens from eating eggs by standing outside of the nests.

Ducklings.—Mrs. M. K., Chesaning, Mich., writes: "How should I feed young ducklings that are expected to hatch in a few days?"

REPLY:—Ducklings should have soft food entirely, with plenty of drinking-water, given so that their bodies will not become wet. A mixture of one part each of ground oats, corn-meal and ground meat, scalded, is excellent. Chopped grass, chopped vegetable tops, cooked potatoes, turnips, or anything that they will eat will also be found beneficial.

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**Queries.**

**READ THIS NOTICE.**

Questions from regular subscribers of **FARM AND FIRESIDE**, and 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 enclose 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.

**Soja Beans.**—F. F., Rainbow, Cal. Soja beans can be obtained from T. W. Wood & Son, seedsmen, Richmond, Va.

**Waterproofing.**—D. N., Bauman, Ill. Cloth coated with boiled linseed-oil, to which a little white wax cut with turpentine has been added, will be waterproof.

**Osage Orange.**—J. J., Deadwood, Oregon. It will be better and cheaper in the end for you to get Osage-orange plants than to raise the plants from seed. Most nurserymen list Osage-orange plants at moderate prices.

**Harvesting Orchard-grass.**—J. C. W., Hillsdale, Pa. Cut and bind orchard-grass as you would wheat, when three fourths of the heads have turned a brownish color. Set it up in shocks of three bundles each, and tie the top with a band, to prevent the wind from shattering out the seed. Within two weeks it will be ready for the thrasher. Any wheat-thresher can be used for threshing orchard-grass, by having a riddle made for the purpose—one with small meshes—and by closing up the fan holes to shut off most of the wind. A little careful experimenting will be necessary to get started right.

**Cucumber-bug and Wireworm.**—"Subscriber," Lewisburg, W. Va., writes: "Can you give me a remedy for the striped cucumber-bug and wireworm?"

REPLY BY JOSEPH:—I have just "doctored" my vines, which are at this time breaking ground. I simply throw a big handful or two of tobacco-dust and bone-meal, mixed in about equal parts, upon each hill, covering the places where the plants are just pushing through. Later on I go over them again, and apply the mixture, or either ingredient alone, in larger doses. This is repeated as often as seems required. It takes quite a quantity of these materials, but it helps, if faithfully and liberally applied. For the wireworm, plow the ground in early autumn.

**Late Cabbages.**—C. E. S., St. Paul, Minn., writes: "Please give your opinion in regard to growing cabbages on sod land. The land is well fitted for cabbages in other respects, and has lain idle for several years, having been pastured. The sod is not very tough. When is the best time to break the land, and when to set plants for late crop?"

REPLY BY JOSEPH:—From your own description, I would plant cabbages with the expectation of a good crop. Break the land at once and get it in as good shape as possible, with well-pulverized surface. If you have old, rotted manure, wood ashes or fertilizers, by all means put them on. Then set the plants. If rather late in the season, as probable at the time this gets into print, you can still plant Early Winningstadt or other medium early variety, or perhaps even the standard Flat Dutch, such as Surehead, etc. Give good cultivation, and you will be reasonably certain of a good crop.

**VETERINARY.**

Conducted by Dr. H. J. Detmers, Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of **FARM AND FIRESIDE**, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose 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. Subscribers may send their veterinary queries directly to Dr. H. J. Detmers, 35 King 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 under any circumstances.

**Umbilical Hernia.**—J. W. W., Wauneta, Neb., writes: "We have two colts that are ruptured. One is a yearling and the other is six weeks old. The ruptures are close to the navel cord, and they were visible before the colts were two weeks old."

ANSWER:—Please see the numerous answers recently given under the head of "Umbilical Hernia."

**A Lame Mare.**—T. A. R., Vernon, Ala. I cannot answer your question. It is often difficult enough to determine the seat and nature of a lameness if an examination can be made, and it is utterly impossible to make a diagnosis without an examination, unless characteristic symptoms are given. All communications reaching me on or before the twelfth and twenty-fifth of the month, respectively, are answered in the papers of the first and the fifteenth of the following month. All that arrive later have to lie over.

**Shakes Her Head.**—Z. W., Wales, writes: "I have a mare that commenced to shake her head a year ago last spring. When the spell attacks her, she acts something like a horse bothered with a bot-fly. At first she did not act that way very often, but now she does so every time we hitch her up."

ANSWER:—First see to it that the harness, collar and bridle in particular, is well fitting and does in no way discommode the animal. If there is nothing wrong in that respect, make a close examination of head and ears, and ascertain if there is anything abnormal, and report again. I think, though, you will find some defect in either the collar or bridle.

**Ringworm.**—W. R. M., Mealey, Oregon. What you describe is so-called ringworm. Paint the diseased parts of the skin once a day or every other day with tincture of iodine; or if you prefer, soften the crusts with soft-soap, wash them off next day with warm water and a brush, and then wash them once a day with a five-per-cent solution of carbolic acid. Continue this treatment for a week or longer; but at the same time thoroughly clean and disinfect the premises where the cattle are kept. If you neglect this, a reinfection is apt to take place.

**Skin Disease—Probably an Ear Fistula.**—M. S., Wallace, Neb. It is sometimes very difficult to make a differential diagnosis in skin diseases, especially if the same has to be based upon a superficial description and no opportunity for examination is given. Therefore, if good and thorough grooming and proper diet does not effect a cure, you may apply the simple treatment so often recommended in these columns in similar cases.—The other case complained of is probably an ear fistula, which possibly contains at its bottom an erratic tooth. Have it examined and probed by a competent person. The treatment requires a surgical operation.

**A Sick Cow.**—M. G. H., March, Me., writes: "Please tell me what is the matter with my cow, and what to do for her. She will not eat or drink anything. She is fat and will bring a calf in about two weeks. She can hardly get up, and when she does she staggers and is so weak that she can hardly walk."

ANSWER:—There are several possibilities. First, the cow may have twins, or at any rate, be very heavy on account of an excessive amount of foetal fluids, large foetus, etc. Second, she may suffer from chronic indigestion and bloating. Third, she may suffer from some lung disease. There are still other possibilities, but the cause of the trouble undoubtedly will have been revealed before this reaches you.

**Probably Swine-plague—Ringworm.**—J. A. S., Sargents, Cal., writes: "Last winter some of my best hogs seemed to lose the use of their fore legs, and upon trying to make them get up, they would go tumbling over and over in their efforts to do so. Others got weak across the loins, so that they could not use their hind quarters; and again, others would hump up and stand around. Most of them died inside of a week. In all cases the hogs were over six months old and fat.—What will cure those warts or scabs that dairy calves get about their eyes?"

ANSWER:—Your hogs, very likely, died of swine-plague.—Your calves, it seems, are affected with ringworm, in regard to which please see answer given under the head of "Ringworm" in this column.

**Two Questions.**—J. R. G., Galesburg, Kan., writes: "1. When one of my horses drinks water, it comes out of his nose. Is there any cure for it? 2. I have a mare that switches her tail between her legs and kicks up at her belly as if flies were on her."

ANSWER:—1. If your horse is otherwise healthy, the trouble may be due to a defective condition of the soft palate. There may also be other causes. Whether any treatment is applicable will depend upon the result of a careful examination and the nature of the cause. The prognosis also depends upon the cause. 2. Your mare probably has slight attacks of colic, or suffers from the presence of intestinal worms, or numerous larvae of the bot-fly.

**Had Distemper.**—M. A., Loyalton, S. D., writes: "I have a four-year-old mare colt that had the distemper very hard. An abscess formed under the jaw, but now it is all healed up. She refuses to eat or drink, and lies down most of the time. Sometimes she looks around at her side."

ANSWER:—It is possible that your mare, which you say suffered from a very severe case of distemper, has metastatic or pyemic abscesses in interior organs—perhaps in the mesenteric or other lymphatic glands. In such cases, of course, any treatment will be in vain. If such abscesses are small and limited in number, the pus may become inspissated, and the animal possibly may live, but will hardly ever be strong and vigorous.

**Probably Fits of Vertigo.**—R. E. N., Fairfax, Iowa, writes: "I have a mare that is not just right. I work her, but she does not work up like she did last summer. She wants to rub and licks to be scratched along the back-bone. Part of the time she has a good appetite. She had two staggering spells. The first time she fell down when I was driving her, but was not long in getting up. The second time she stopped still, staggered and put her head down almost to the ground. I am feeding corn and two-year-old oats. She is not fat, but is smooth and has a glossy coat of hair."

ANSWER:—It seems your mare has attacks of vertigo. If the food she gets is musty or moldy, change it, and give her healthy and sound food, and if the harness—collar especially—does not fit, but presses upon the jugularis or otherwise interferes with the circulation,

make it fit. As to the itching sensation along the back, you fail to give any clew concerning its nature, because you say she has a smooth and glossy coat of hair, which is hardly ever the case when a skin disease is existing. May-be there are chicken-lice in your stable.

**Damaged Knee-joint.**—N. C. D., Ashland, Oregon, writes: "I have a horse that ran against something and bruised his stifle-joint about two years ago. It swelled and threatened to break. I used a liniment of saltpeter and vinegar, and the swelling went down. His leg was a little weak and he dragged his foot a little in traveling. About three months ago, in running out of the stable, he struck the joint against the stable door, and has not been able to work since. He drags his foot and swings it around when he walks. The joint is not swelled, but there seems to be a callous grown over and above the joint. The left side of the hip has fallen away some."

ANSWER:—It is exceedingly doubtful if any treatment will do any good in such an old and inveterate case. It ought to have been attended to in the beginning. A timely reposition of the partially dislocated knee-pan, and applications of cold water would have been in place. It is too late now. Too narrow stable doors are dangerous.

**Diseased Eye.**—C. H., Hartline, Wash., writes: "I have a mare troubled with pus, or matter, running from the inside corner of the eye. The ball of the eye seems to be clear. I have treated it with dry salt, also salt and water, but without effect."


ANSWER:—If pus is discharged from the inner angle, there must be suppuration or an abscess, which is hardly probable unless the eye has been wounded, or there is a foreign body between the eyelids, which, of course, must be removed. To apply dry salt and salt and water to a diseased eye, or even to a healthy eye, is bad practice, causes too much irritation, and necessarily increases the inflammation. In cases of catarrhal inflammation, mild astringents in shape of an eye-water—for instance, a solution of nitrate of silver, one to two grains to an ounce of distilled water—are indicated; and if much irritation exists, a mild narcotic—for instance, a solution of hydrochlorate of morphia, two grains to an ounce of distilled water—may be used until the irritation has subsided. Either of these eye-waters may be applied three times a day, by means of a small, glass pipette, capped with a rubber bulb, which can be obtained in almost any drug-store.

**Wants to Know What Ailed the Mare.**—W. W. L., Aurora Station, Ohio, writes: "Please tell me what ailed my mare. She was all right at night. In the morning she was unable to get up. I moved her out in the yard. She kept her feet in motion most of the time, but did not roll over. I gave her twenty drops of aconite in warm water, which seemed to make her worse. After two hours I gave her half a pint of whisky and a tablespoonful of laudanum. In the evening she gave birth to a foal that we judged had been dead for several hours longer than she had been sick. Her time was not up for six weeks. Next morning she was able to eat. She improved very fast through the day and up to 3 A. M. of the next day. Then she seemed to have a chill, and shook like one with ague, and died very quietly a few hours later. I had her opened and found the lungs very little congested, the heart all right, the liver very little congested, and the intestines, both large and small, all right. In her stomach was half a pint of bots; with their heads buried in the lining of the stomach. One half of the lining was destroyed and very easy to break through. Please tell me what I

should have done. She had been worked to plow and harrow, but not hard. She had not been injured in any way that I know of."

ANSWER:—If there were anywhere any morbid changes nor inflammations than some bots in the stomach and a little congestion in the lungs and liver, I cannot tell you what your mare died of, and her death must be a mystery. The description of the case, however, would indicate metritis and subsequent peritonitis; but there must have been conspicuous morbid changes which you have overlooked. You ask what you should have done; this I cannot tell you, but what you should not have done I can tell you, and that is, you should not have given medicine to the animal as long as you did not know what ailed her.

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certed by his angry, defiant looks, continued calmly:

"I found the firm that Richard worked for, and they assured me that they never had a more obliging, efficient, faithful man in their employ. And the minister who married them knows the family well, and said they were exceptionally intelligent and well educated, and Richard's wife a refined and beautiful girl."

The squire's discomfiture was almost pitiful. Margaret herself expected to see him leave the room or order her to stop talking; but for once he was compelled by a power he could not resist to listen, and as she paused, still looking directly into his face, he said:

"Well, if you want to lower yourself enough to follow him up, you can, but don't ever tell me of it again. If you hadn't been a woman, you never would have done it now."

Not heeding his threat, she replied in the same calm, decided manner as before:

"I honored, not lowered myself, and next summer I shall go to England and find them, if it is a possible thing."

"Go to England!" said the squire, astonished at her boldness.

"Yes, indeed, I shall," answered Margaret, with deep feeling, "for I shall never know what peace of conscience is until I have been forgiven for the injustice I have done him."

"Well, you had better take care of what little means you have got than to throw it away in such a fool chase as that. That's all the good it does for me to board you at actual cost, so you could save something for your old age. I guess if you had seen the independent, defiant letters that he wrote me, you wouldn't go to England whining after his forgiveness," and the squire looked as though he had an argument that would convince her of her folly.

"Were you not just as independent and defiant to your father when you were twenty years old?" asked Margaret earnestly.

This was a turn the squire had not foreseen, but he answered quickly.

"If I was, it was in a good cause. I didn't make an ass of myself in getting married."

"If Mr. Lockwood was right, Richard's wife is just as noble a woman as your wife was. But whether she is or not, the brother that my mother died to give me shall know that I am his friend, if I can possibly find him."

"You—" But the squire was interrupted by the entrance of Maria, and their conversation stopped at a most opportune moment.

For a few days after this the squire treated Margaret with a marked indifference. But she gave no indication of knowing it, and the armor of severity and coldness, with which he had conquered everyone else, was not invulnerable to the power of that love and devotion which constantly ministered to his comfort in thoughtful, unobtrusive ways.

KATHERINE B. JOHNSON.  
(To be continued.)

### SAM'S STRATEGY.

Farmer Kendrick had brought in a pile of snow-covered logs, and as he banged them down on the hearth, Carrie started up.

"Five o'clock! Oh, I had no idea it was so late. I must be going."

"Allow me to accompany you, Miss Brown."

"Let me see you home, Carrie?"

Captain Logan and Fred Jones both spoke at once.

"I prefer to walk alone," she said, smiling on both cavaliers.

"About the sleighing party to-morrow night," said Fred, anxiously.

"I—I have half promised Captain Logan," said the village beauty, a rosy tint suffusing her cheek.

"But, Carrie, I thought it was settled between you and I weeks ago!" exclaimed Fred with a frown.

"Was it?"

"You know it was."

"I'm sure I had forgotten."

Fred was silent. Captain Logan's soft voice broke the silence.

"I exact no promises," he said gallantly, "but if I am not punctual to the hour and the spot, Miss Brown may draw her own conclusions."

Carrie was silent.

Fred Jones had loved this pretty, bright-eyed damsel ever since they were children together, and Captain Logan, who had come down to spend the holidays with his cousins, the Kendricks, had become so fond of those bright blue eyes and that golden hair that he had prolonged his visit into January.

"Pon my word, she's a regular beauty," said the captain, staring through the tiny window-panes at the retreating figure of Miss Brown.

Fred Jones glanced quickly up at him, as if he would have liked to knock him over into the fireplace; but he refrained from any such demonstration.

"A beauty," went on the captain, "and it's a thousand pities she should be wasted on any of the bumpkins that vegetate in this wilderness. Sam, you young villain, are my boots blacked yet?"

The farmer's hired boy, who had just come in to warm his purple hands at the merry red blaze, looked glum.

"No, they ain't," said Sam.

"Why not?"

"Cause I 'ad no time."

"See you find time, then, and that quick," said the captain.

Sam glowered after him as he went gaily up the stairs.

The next night was perfect for sleighing and love-making. The roads were glistening, and a silver crescent shone brightly.

"Couldn't be better weather," said the captain. "Sam, where are the sleigh-bells?"

"Dunno. There's them old jingles in the garret that used to belong to Deacon Joe Kendrick's, of 1776, and there's the two cow-bells that Mary Jane might scour with ashes—"

"Pshaw! what do you take me for? There is a pretty little string somewhere, for I saw them when my cousin went out yesterday."

"I ain't seed nothin' ou 'em," said the boy stolidly.

"Come, come, Sam, don't make yourself out any more stupid than you are by nature," said the farmer, laughing nevertheless, for the captain's airs were wearing out his welcome.

"I guess they are out in the barn chamber. You better go with him, captain, if you expect to find 'em; our Sam's dreadful thick-headed when he chooses to be."

"Come along, my fine fellow," said the captain, collaring Sam and marching him off in the direction of the old, red barn. "We don't need any lantern in the moonlight, that is one comfort. Where are the stairs?" demanded the captain, as they entered the barn.

"Ain't none," said Sam. "It's a ladder."

"Up with you, then," said Logan, but Sam shrank back.

"I wouldn't, not for fifty dollars," said Sam. "Old John Kendrick hung himself from the middle beam fourteen years ago, and folks say he stands up there with a rope around his neck every moonlight night."

"Stuff and nonsense," cried the captain in accents of contempt. "You cowardly lout, stay where you are, then, and I'll go myself."

He sprang lightly up the rounds of the ladder and disappeared through the trap-door.

"Where is it?" he called.

"The ghost? Right under the middle beam by the windy was the place where—"

"Blockhead! I mean the string of bells."

"Look for 'em yourself," said Sam sulkily.

"I don't know where they be, and what's more, I don't care."

"I'll settle with you, my fine fellow, when I come down," said the captain, threateningly, as he groped about in the dim light which came through a cobweb-draped window at either end of the barn chamber.

"Don't hurry yourself, cap'n," rejoined Sam in a jeering tone.

As the captain plunged into a dark corner there was a jingle, and the string of bells, suspended from a nail, hit him directly on the neck, so like the grasp of death-cold fingers that he could not but start.

"Oh!" said the captain, nervously. "Here they are. Catch 'em, Sam! Hal-lo! where's the trap-door?"

And it took the worthy captain fully sixty seconds or more to realize that the trap-door was closed and fastened on the lower side. He ran to the window and threw it up, only to see Sam speeding up the hill.

"Hal-lo-o-a!" yelled Captain Logan. "Come back, you scoundrel! you ill-conditional lout! you imp of evil!"

Sam turned around and executed that peculiar gyration of the fingers in connection with the nasal organ, which is supposed to express the extremity of scorn.

"You will find the ladder on the barn floor, cap'n," shouted this young rebel, "an' don't be afraid o' the ghost; it's very harmless if you let it alone."

"But, Sam—Sam, come back! I'm to be at Mr. Brown's at half-past seven."

"Don't worry!" bawled Sam. "Miss Carrie won't have to wait long before Mr. Fred'll be on hand."

The captain danced up and down on the floor in an ecstasy of rage as Sam disappeared over the crest of the hill. He knew very well if he possessed the lungs of Boreas he could make no one hear.

He sat shivering down on the hay, starting nervously at the sound of horses' feet below, and thinking how disagreeably a bar of moonlight, which streamed down from a crack in the roof, resembled a tall, white figure standing under the center beam. He could almost fancy the rope around its neck. Pshaw! And the captain jumped up again, with startling dew on his brow, even in the freezing atmosphere of the barn chamber.

"What was to be done?" he asked himself, and echo, if echo had any common sense, would have answered: "Just nothing at all."

Sam had outwitted him. And pretty Carrie, and Fred Jones, with his red cutter and great chestnut-colored horse! The captain was wild at the thought; surely he was vanquished.

"I won't wait another minute for him," said Carrie Brown, coloring up, with the tears in her blue eyes. "Go on, girls, I shall spend the evening at home."

"There's plenty of room for you in our sleigh, Carrie," coaxed her brother. "Bessie Brown would be glad to have you along."

"No she won't, either," pouted Carrie. "As if I would spoil all her fun! No; if I can't have an escort of my own, I'll stay at home and mend stockings, and I never, never will speak to Captain Logan again."

Charlie Brown was on the point of arguing the matter with his sister, when the door opened and in walked Fred Jones.

"Not gone yet, Carrie? Where is the captain?"

"I don't know," said Carrie, tartly, "and I do not care. Am I Captain Logan's keeper?"

"Will you go with me?"



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"Yes, I will," said Carrie, her eyes lighting and shy smiles dimpling her lips.

"Of course," said Fred, "I can't expect to make myself as agreeable as the city captain, but—"

"The captain, the captain," cried Carrie, a little irritably, "I am sick of the sound of his name. I never want to see him again. What a nice new cutter this is, and how easy the wolf robes are."

"Carrie," whispered Fred, as he touched up the horse and felt her nestling close to him, "is it for always?"

"Yes, always," she answered.

"Jerusalem!" said Farmer Kendrick. It was past ten o'clock at night, and the old gentleman had come out, as usual, before retiring to rest, to see that the dumb members of his family were all safe. "I do believe that's old John Kendrick's ghost come to life again, poundin' like all possessed on the barn-chamber floor!"

"It's me-e! It's me-e!" yelled the captain. "Unfasten the trap-door and let me out!"

Slowly the farmer lifted the ladder to its place. With rheumatic awkwardness he climbed the creaking rounds and uddid the hook from the hasp.

"How in all creation came you here?" he demanded. "Why, I thought you was out a sleigh-ridin' with the gals?"

"It was all the doing of that villain Sam!" gasped the infuriated captain, his teeth chattering with rage and cold. "I won't stand this sort of thing. I'll leave this place to-morrow."

"As you please," said the farmer, to whom the prospect of losing his guest was not unpleasant. "I'll talk seriously to Sam."

"So will I," gnashed the captain. "I'll break every bone in his body."

But Sam was nowhere to be found, and the first ones of the returning party brought the news that the engagement of Fred Jones and Carrie Brown had been announced.

The captain left for home next day, and pretty Mrs. Fred Jones has never seen him since. When the wedding came off Sam received a piece of wedding-cake big enough to give him the dyspepsia for a week.—*Waverly Magazine.*

### HOME.

Real children would as soon expect the sky to fall as to find the door of home shut against them. Whatever they may be doing, the sense of home abides in their hearts. Even when they do not consciously think of it, it is always there as an underlying comfort. They will go to it from school, from work, even from play; talking all the way to their companions, thinking, one would say, of anything but home. But see how steadily they go toward it all the while; they take no step out of the way. And when they come in, how naturally and easily they seem to take possession of the place. It is theirs; they never dream of not having a right to it; they never think of leaving it (that may come later, naturally, and bring sadness with it)—children never think of it. Leaving home! Father or mother might leave it, but they never. That is the feeling in every truth. Of course, we must drop some of the human accompaniments; some of the small exterior things do not belong to it in making the higher application; but this is the feeling, substantially, which God wishes us to have in thinking of him and of his presence.—*Alexander Raleigh.*

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There, little girl, don't cry.  
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days  
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There, little girl, don't cry.

There, little girl, don't cry.  
They have broken your heart, I know,  
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dreams  
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—James Whitcomb Riley.

WISDOM VERSUS WOMAN; OR, THE WISE WOMAN ON THE FARM.

THE Fourth of July dawned gloriously upon the McAllister farm. The white mist, still resting weirdly on the prairie, seemed unwilling to leave Mother Earth, and its cool, moist breath reached to the hilltops that were green with the growing corn and golden with the ripened grain. The chickens were noisily jubilant, and as they left their roosts seemed determined all the world should know that they were awake, and as they did not wish to sleep any longer, no one else on this farm should sleep, either.

Five o'clock is an unseemly hour, but long before this the housekeeper must have been astir, for breakfast was ready, and freshly-washed milk-pans shining in the sun attested the tireless industry of a willing hand. As the day advanced the farm-hands, one by one, gathered in the shade of the barn, waiting for the signal to go to the field; each prophesied a very hot day, as the rays of heat were already beginning to quiver over the fields of grain.

It was in the midst of wheat harvest, and the sound of cannons and crackers mingled with the voices of the workers, as they called from field to field some message of haste. And now the mother of the household appears at the door with her bonnet on, casting uneasy glances up the hot, dusty road. A big, fat horse stood patiently awaiting her pleasure; her pans and jugs were under the buggy-seat; Joe, her son, was at her elbow with a long list of errands to attend to for him, while protesting against the hot drive in the sun and her errand to the city.

"I must go, Joe," said she. "This is the third day Miss Latterday has set for her visit in the country; she is pining for a little fresh air. Poor, good woman! If I can add to her happiness with a little fresh air I am sure I ought to be willing. Dear knows, Joe, I give little enough."

"But to come in harvest-time, mother, how inconsiderate!" said irate Joe.

"Yes, always in harvest, or thrashing, or

Joe's mother conceded with a sigh that she was tiresome. "But she is a good woman, Joe, a very good woman! It is my fault if I am not benefited by her visit."

So off she started on this errand of love and charity, not at all intimidated by the noise and the smell of powder coming from the city.

Notwithstanding this effort to accomplish



EMPIRE DRESS.

her mission in the cool hours of the morning, it was fully noon before Miss Latterday was ready to leave the city. She had so many last messages to give; so many little errands to attend to before coming; so many bundles to prepare for this week's visit in the country. She was thin and wiry, and never too warm, and sat on the shady side of the buggy; Mrs. McAllister was fleshy and always steaming, and now with the sun burning her shoulder, grew each moment seemingly more uncomfortable. The horse taken from the pasture was lathered with heat; the jugs and pans, filled with delectables from the city, were fast liquifying into unexpected elixirs; but Miss Latterday sniffed the air with her

under the buggy-seat, and came crawling into the yard as if a year from date was quite time enough.

It was two o'clock before the dinner was over, and as Mrs. McAllister had been up many long hours, and was in the habit of sleeping after the noon meal, she looked longingly at her lounge, but heroically joined her friend on the porch. Miss Latterday, seated in a big arm rocking-chair, was see-sawing for dear life; not a moment would she lose of this charming afternoon by going to sleep.

But the longest day will have an end—and it is a pretty long day if you arise with the dawn on the Fourth of July. Soon after dark Mrs. McAllister began to close up the house for the night; and as Miss Latterday thought it was barbarous to go to bed at nine o'clock, she was left on the porch alone, peep-a-booing with the moon through the clouds and the trees, long after the others had retired. On the morrow—all the long morning—this endless motion on the porch continued; in the sun and out of the sun, rickety-rock over the uneven boards, tireless, and joyous as a child.

But to-day Mrs. McAllister claimed her nap, and went into her darkened room, while Miss Latterday commenced again her saw-horse. At last quiet reigned; the cricket was heard as usual singing in the parlor; the swallows rumbled in the chimney; the noisy rooster sounded his note under the window. Sweet sleep gently stilled the tired hands; peaceful slumber closed the tired eyes. Suddenly a cry came from the orchard—a prolonged, painful "Oh-h-h!"

Mrs. McAllister flew to the door with her petticoats dangling to her heels, her hair hanging over her face and her eyes blinded by the sun, glaring in the light.

"Maria, where are you?" she called.

"Here!" came a subdued voice from among the beehives.

"What is the matter?"

"Nothing much. A bee stung me."

"What are you doing with the bees?"

"I was catching them."  
"Catching bees! Are you crazy?"

By this time Maria had entered the house, holding both hands clutchingly over her face.

"I have read when bees are swarming," she said, "if you are not afraid of them you can take them up in your hands and put them in the hive, and they will not sting you. I saw a bunch on an apple, and as I was not afraid of them, I thought I would not disturb you, and I went to put them in the hive, and—and—you see they have stung me."

Her thin lips were full and pouting; her nose was swollen into a club; her eyes were hardly to be seen, and for the rest of the day, in a darkened room, were content to be closed to nature's beauty and alluring joys.

The next day, when Mrs. McAllister retired for her after-dinner sleep, she begged Maria to keep quiet, as this nap was essential to her usefulness for the rest of the day. For Maria to keep quiet was impossible, though for a time the rocker was hushed on the porch. She was so happy in the enjoyment of country life, that any time was to be regretted not employed in its novel pastimes. Soon she was heard in earnest conversation with the calf, that was comfortably sleeping under the peach-tree.

"Come, calvie, let us take a little walk. You must be tired sleeping all day. Nothing is so wholesome as a little exercise."

Untying the calf they started majestically on their promenade. She held the strap firmly with one hand, while with the other she affectionately patted its glossy back. The calf went slowly and contentedly for a few steps, then taking hope began to make effort to gain its liberty, tossing its head, whirling, circling around Maria, throwing up its

heels, and anon giving forth a bleat of dissatisfaction.

"Hold onto him," called Joe from his load of hay just entering the barn-yard.

"I can hold him. I'll conquer him," cried Maria.

"Tie him to a tree," called Joe.  
"I am going to. I'll get him there," answered Maria, with fluttering breath and strength fast giving out.

At last the calf gave a movement so unexpected that she came down on her knees, while it continued backing down the walk, humbly followed by Maria. In consideration of her calf, Mrs. McAllister sent Joe to her assistance; and short of wind, its tongue hanging out with the heat, it was secured to the fence.

"This is what we call a sweat bath at the Sanitarium," panted Maria. "Now let me get some water and give it a cold dash to cool it off, as we do at the Sanitarium."

The water was not permitted for the calf, but Joe advised her to use it herself and leave the calf alone in the future.

In gratitude for Joe's kindly assistance in thus securing the calf, Miss Latterday came out into the barn-yard at milking-time and offered to try her hand at milking. She was very voluble in her opinions how cows should be cared for. "Always salt. Plenty of salt and plenty of water. And then I have read that you should milk cows so," taking Joe's seat and holding on to the two right-side udders.

"You think I can't milk, but see!" With that she doubled up her fingers, and sent a little stream singing into the bucket. Mollie doubled up, too, and almost jumped out of the pen; with one whisk of her foot she sent the bucket rattling down the hill. Poor Maria fell over against the fence with a cry of horror.

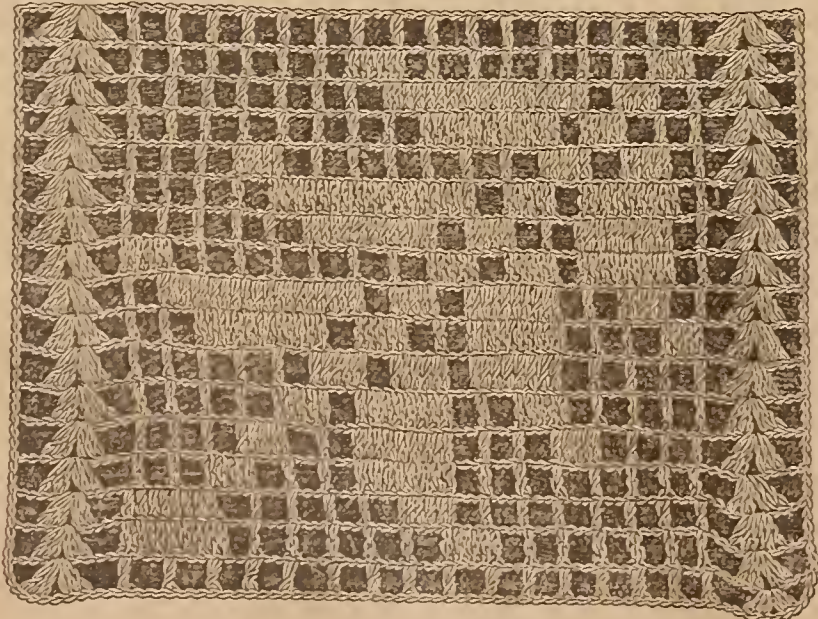
"Oh, she has hit me! She has broken my leg!"

"Not much," said Joe, unsympathetically. "I should think not by the looks of this bucket," recovering his bucket, and endeavoring to straighten out its curvatures.

"Look at your hands! How do you think you can milk with such spikes as those? You had better go into the potato-patch; they will be of more use there hoeing out weeds."

Sure enough; the beautifully-trimmed nails were not intended to claw at a cow. Thus rudely dismissed she slowly wandered back into the house, but not in the least discouraged in her efforts to be useful.

The longer she remained on the farm, the more she expatiated on country living. She wished she owned a farm. She was sure she could make money. She would raise cows and bees—they pay best, for they are

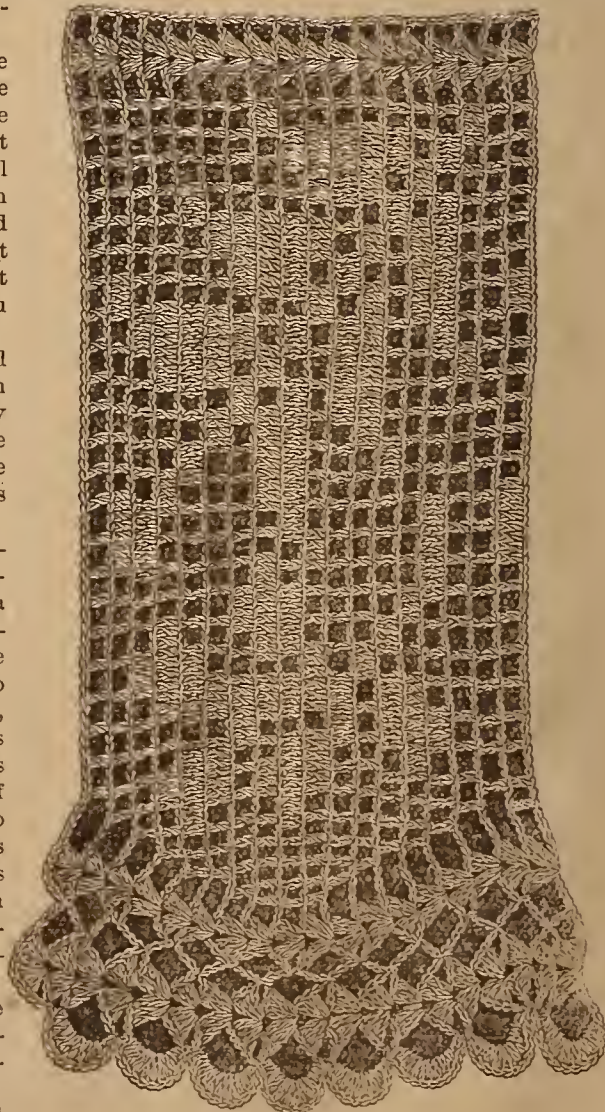


M. C. CROCHETED LEAF INSERTION.

something. It is always something, Joe. It is always hot and dusty; it is always July when they ask to come; yet poor Miss Latterday has so little enjoyment in life that if she wants to come I will go and bring her out."

Miss Latterday was alone in the world, and seeking by words in season and out of season, to fill her destiny by regenerating this world that had gone so far astray in its mission of usefulness and happiness.

sharp little nose, proclaiming each moment her delight. The lights on the meadows, the shade in the woods, the foam of the clouds and the songs of the birds, filled her heart with joy and her lips with ecstatic exclamations. Mrs. McAllister listened to a tirade on madder-lake, cobalt, sky blue and green, the colors that went to make the shades of this beautiful landscape. She forgot her household cares, her son Joe waiting for his dinner, her ruined stores



M. C. CROCHETED LEAF LACE.

self-supporting. It was gambling in wheat that broke up the Ohio farmer, with fancy machinery and hiring too many hands. She had read of how women could farm better than men, and made fortunes out West.

ADALINE REED.  
(To be continued.)



**M. C. CROCHETED LEAF INSERTION.**

The explanation of abbreviations is as follows: Ch, chain; st, stitch or stitches; sh, shell or shells; tr, treble or trebles; ho, hole or holes.

First row—Make a ch of 68 st. 1 sh in ninth st of ch (2 tr, ch 1, 2 tr), ch 2, miss 4 st, 1 tr in the next st (1 ho), 15 ho (ch 2, miss 2, 1 tr in next st), ch 2, miss 4, 1 shell in next st (17 ho in all, between the shells), ch 2, 1 tr in last st of foundation ch, ch 5; turn.

Second row—1 sh in sh (7 ho, 4 tr) twice, 1 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Third row—1 sh, 2 ho, 4 tr, 1 ho, 16 tr, 8 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Fourth row—1 sh, 9 ho, 10 tr, 1 ho, 4 tr, 3 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Fifth row—1 sh, 2 ho, 4 tr, 1 ho, 4 tr, 7 ho, 4 tr, 4 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Sixth row—1 sh, 5 ho, 16 tr, 1 ho, 4 tr, 1 ho, 7 tr, 2 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Seventh row—1 sh, 2 ho, 7 tr, 2 ho, 4 tr, 1 ho, 10 tr, 6 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Eighth row—1 sh, 1 ho, 4 tr, 7 ho, 4 tr, 1 ho, 4 tr, 1 ho, 7 tr, 2 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Ninth row—1 sh, 2 ho, 4 tr, 2 ho, 7 tr, 1 ho, 4 tr, 1 ho, 16 tr, 2 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Tenth row—1 sh, 3 ho, 10 tr, 1 ho, 4 tr, 2 ho, 7 tr, 3 ho, 4 tr, 1 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Eleventh row—1 sh, 5 ho, 7 tr (1 ho, 4 tr) twice, 6 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Twelfth row—1 sh, 5 ho, 4 tr, 1 ho, 7 tr, 2 ho, 4 tr, 5 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Thirteenth row—1 sh, 4 ho, 4 tr, 3 ho, 7 tr, 2 ho, 4 tr, 4 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Fourteenth row—1 sh, 3 ho, 4 tr, 3 ho, 7 tr, 8 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Fifteenth row—1 sh, 8 ho, 4 tr, 5 ho, 7 tr, 1 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Sixteenth row—1 sh, 1 ho, 7 tr, 6 ho, 4 tr, 7 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Seventeenth row—1 sh, 17 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Repeat from second row for the length required.

ELLA McCOWEN.

**M. C. CROCHETED LEAF LACE.**

The explanation of abbreviations is as follows: Ch, chain; st, stitch or stitches; sh, shell or shells; tr, treble or trebles; d c, double crochet; s c, single crochet; ho, hole or holes; \* or \*\*, repeat.

Make a chain of 100 stitches.

First row—1 sh in ninth st (2 tr, ch 1, 2 tr), ch 2, miss 4 st, 1 tr in the next st (1 ho), 22 ho (ch 2, miss 2, 1 tr in next st), ch 5, miss 5; 1 sh of 2 tr, ch 1, 2 tr in next st, ch 1, miss 3, 1 d c in next st, ch 4, miss 4, 1 sh of 3 tr, ch 1, 3 tr in next st, ch 1, miss 4, 1 d c in last st of foundation ch, ch 2 st; turn.

Second row—1 sh (3 tr, ch 1, 3 tr) in sh, ch 1, 1 d c under first st of 4 ch, ch 4, 1 sh (2 tr, ch 1, 2 tr) in sh, ch 5, 1 tr in fourth st of ch, \* ch 2, 1 tr on tr; repeat from \* until you have \*\* 14 ho, 4 tr, 7 ho, 4 tr, ch 2 (1 ho), 1 sh (2 tr, ch 1, 2 tr) in sh, ch 2, 1 tr in third st of 5 ch, ch 5; turn.

Third row—1 sh in sh, 2 ho, 4 tr, 1 ho, 16 tr, 5 ho, 10 tr, 4 ho, 4 tr, 2 ho, ch 2, miss 1 st, 1 tr in next st, ch 5, \* 1 sh in sh, ch 1, 1 d c under first st of 4 ch, ch 4, 1 sh in sh, ch 9, 1 s c in 2 ch, ch 1; turn.

Fourth row—1 d c, 8 tr, 1 d c, all in loop of 9 ch, ch 2; repeat the second row to \*\*; 3 ho, 10 tr, 2 ho, 4 tr, 9 ho, 10 tr, 1 ho, 4 tr, 3 ho, 1 sh in sh, ch 2, 1 tr in third st of 5 ch, ch 5; turn.

Fifth row—1 sh, 2 ho, 4 tr, 1 ho, 4 tr, 7 ho, 4 tr, 5 ho, 4 tr, 1 ho, 7 tr, 4 ho, ch 2, miss 1 st, 1 tr in next st, ch 4; repeat the third row from \*.

Sixth row—Repeat the same as fourth row (only ch 3 st instead of 5 ch, after sec-

Elghth row—Repeat the same as fourth row (only ch 4 st instead of 5 ch, after second row) to \*\*, 5 ho, 7 tr, 1 ho, 7 tr, 3 ho, 4 tr, 7 ho (4 tr, 1 ho) twice, 7 tr, 2 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Ninth row—1 sh, 2 ho, 4 tr, 2 ho, 7 tr, 1 ho, 4 tr, 1 ho, 16 tr, 2 ho, 7 tr, 1 ho, 4 tr, 1 ho, 10 tr, 3 ho, ch 3, 1 s c in first st of 4 ch, ch 3; repeat the third row from \*.

Tenth row—1 d c, 8 tr, 1 d c, all in loop of 9 ch, ch 2, 1 sh in sh, ch 1, 1 d c under first st of 4 ch, ch 4, 1 sh in sh, ch 3, miss 3 ch, \* 1 tr in first st of next 3 ch, miss 2 st, 1 tr on tr, 4 ho, 4 tr, 2 ho, 4 tr, 1 ho, 10 tr, 2 ho, 10 tr, 1 ho, 4 tr, 2 ho, 7 tr, 3 ho, 4 tr, 1 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Eleventh row—1 sh, 5 ho, 7 tr (1 ho, 4 tr) twice, 6 ho, 4 tr, 2 ho, 7 tr, 6 ho, ch 3; repeat the third row from \*.

Twelfth row—Repeat the same as tenth row to \*, 1 tr on tr, miss 2 ch, 1 tr on next tr, 3 ho, 7 tr, 1 ho, 4 tr, 8 ho, 4 tr, 1 ho, 7 tr, 2 ho, 4 tr, 5 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Thirteenth row—1 sh, 4 ho, 4 tr, 3 ho, 7 tr, 2 ho, 4 tr, 6 ho, 7 tr, 1 ho, 10 tr, 1 ho, ch 1, miss 2 ch, 1 tr on tr, ch 3; repeat the third row from \*.



LINEN DOILY.

Fourteenth row—Repeat the same as tenth row to \*, 1 tr on second tr, ch 1, 1 tr on next tr, 1 ho, 4 tr, 2 ho, 10 tr, 4 ho, 4 tr, 3 ho, 7 tr, 8 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Fifteenth row—1 sh, 8 ho, 4 tr, 5 ho, 7 tr, 3 ho, 4 tr, 4 ho, ch 1, miss 2 ch, 1 tr on tr, ch 3; repeat the third row from \*.

Sixteenth row—Repeat the same as tenth row to \*, 1 tr on second tr, ch 1, miss 2 ch, 1 tr on tr, 7 ho, 7 tr, 6 ho, 4 tr, 7 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Seventeenth row—1 sh, 23 ho, ch 5, 1 sh in sh, ch 1, 1 d c under first st of 4 ch, ch 4, 1 sh in sh, ch 1, 1 s c in 2 ch of previous row, ch 2; turn.

Repeat from second row for the length required.

ELLA McCOWEN.

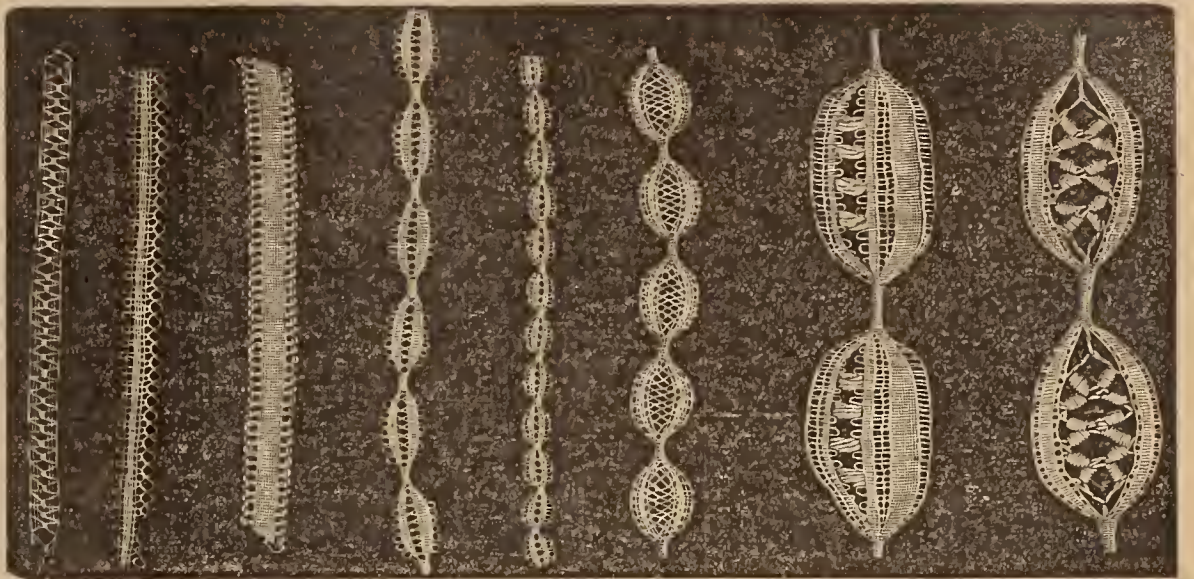
**EMPIRE DRESS.**

For a half-grown girl there is no dress so pretty as the Empire. The waist lining is fitted as any other dress, but the outside material falls in flowing lines. The one we illustrate is very pretty in any soft wool goods. The cross-bands of ribbon tie at the waist in the back, and can have either long or short ends, as preferred. The sleeves are very full; and if made

in wash material, make the sleeve entire to the shoulder of the coat-sleeve pattern, and put the puffs on it. Then sew the top puff into the armhole securely, but only baste in the main sleeve; then, when it is

to be laundered, this can be loosened and the top puff ironed like straight goods.

Flowing hair slightly curled is very becoming to most girls, and preserves their girlish look much better than doing the hair up in too severe style. Many girls look older at fifteen than they do after-



FANCY BRAIDS FOR LINEN DOILIES.

ward at twenty-five, just for not knowing how to arrange the hair.

Tan shoes and stockings are worn with everything, and in the dust are much more serviceable than black. Black, though, is to be preferred for dress occasions.

Embroidered white dresses will be worn

will keep it flat. For the border, wind the wool five times around the finger; crochet two chain, then catch it under the ring and fasten; then two more chain, and fasten into the main shawl. Very good-sized ones can be bought for one dollar, which is cheaper than trying to make it oneself.

They answer for throwing over the head when sitting out in the evenings.

CHRISTIE IRVING.

**PAINTED SLATES.**

In our rage for home decoration many useless and ugly things have been admitted to our favor, where they cannot retain a lasting regard. It is expedient to clear away the ornaments which we have outgrown at least once a year. If one has an immense garret, a collection of old-fashioned garments, articles of furniture and other antiquities may after awhile afford many a hearty laugh, and for the sake of laughing they may be worth saving.

When a little article is both pretty and useful we do not make fun of it; therefore, a certain combination of slates won my approval at a glance.

If the slates are large they will be too heavy to make as safe a pocket as if they be of smaller size. A big wall-pocket will get full, and sometime, with the weight of itself and its contents, down comes the whole with a crash that unnerves the housewife for a whole day.

If you buy new slates, get one five by eight inches in size for the back of the pocket, and have the front of the pocket formed by another measuring four by six inches. Take a strip of strong, thick canvas two inches wide, cover it with red plush and tack it to the edges of the two slates to form the bottom and sides of the pocket. Beautify the slate-frames with a coat of bronze or gilding. Daisies are painted on the slates, or you may use any design you prefer. Use oil paints, and dip your brush in turpentine quite often. This will prevent the oil from spreading on the slate and allow your brush to proceed rapidly. Brilliant red ribbons are used to enhance the effect. A rich cord of the same color is tacked around the edge of the outer slate. A sponge and slate-pencil are attached by means of very narrow ribbons, so that the front of the pocket may be used as a memorandum.

I said "if you buy slates," because it seems that this would be a pretty way to keep the slates which some dear children had carried to school when they were wee toddlers.

Artistic mothers have many ways of showing how precious are the mementoes of their darlings' babyhood. In a mother's bedroom I recently saw a photograph of her two children taken when they were quite young. She had fashioned the frame herself, and along the top ran this couplet: "My sweetest thoughts, my tenderest care, Go with thee, darlings, everywhere."

KATE KAUFFMAN.

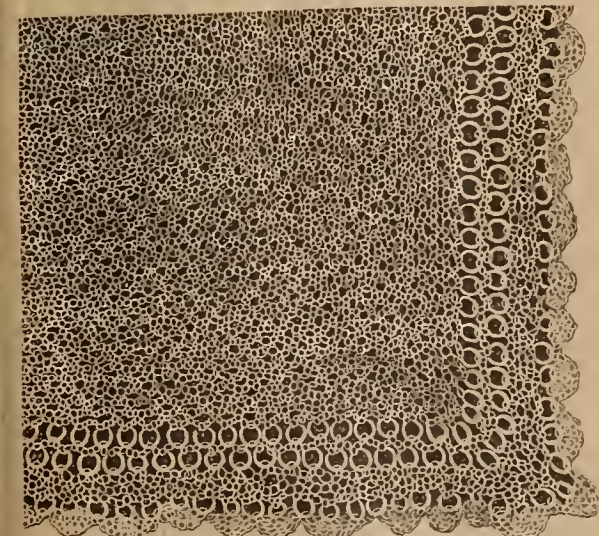
**SHOPPING.**

All kinds of family shopping done satisfactorily. Specialties in infants' clothes, art materials and linens. Inclose stamps for reply. Christie Irving, 120 Maple Ave., Springfield, Ohio.

BOILING new milk will take out most fruit stains. Dip the articles in several times. Another way is to dip in sour buttermilk and dry in the sun. Wash in cold water, and dry two or three times daily.

CLOTHES-PINS boiled a few minutes, and quickly dried, once or twice a month, become more durable.

FOR poison-oak, bathe in cream and guapowder twice a day till cured.



SHAWL CORNER.

ond sh) to \*\*, 8 ho, 4 tr, 7 ho, 16 tr, 1 ho, 4 tr, 1 ho, 7 tr, 2 ho, 1 sh, ch 2, 1 tr, ch 5; turn.

Seventh row—1 sh, 2 ho, 7 tr, 2 ho, 4 tr, 1 ho, 10 tr, 9 ho, 7 tr, 6 ho, ch 4; repeat the third row from \*.

SHAWL CORNER.—This is made of ice-wool, taken double; that is, you work two balls at once. Commence in the center, and form it into a square. The widening at the corners

Our Household.

VISIONS OF CHICAGO PIRACY.

Ef yer goin' to see the circus called the big Chicago fair, Ye'd better cut yer wisdom teeth an' sharpen 'em with care, An' keep yer wits about ye an' mind what yer about,

For they'll skin ye like the mischief ef ye don't watch out!

They're goin' to charge fer gazin' an' a extra lump fer thinkin', It'll cost a heap fer eatin' an' they'll sock it on fer drinkin', An' ef ye get a bed at night or ef ye go with-out,

They'll skin ye like the mischief ef ye don't watch out!

It's a cent apiece fer coughin', an' jes twice as much fer sneezin'; A nickel ef ye hold yer breath an' two of 'em fer breathin', A shilling fer a whisper an' a quarter fer a shout—

They'll skin ye like the mischief ef ye don't watch out!

They'll tax yer fer the privilege o' walkin' on the ground, No matter ef ye go ahead or ef ye turn around, An' jes because yer livin'—don't ye never have a doubt—

They'll skin ye like the mischief ef ye don't watch out!

—New York Evening Sun.

HOME TOPICS.

SUMMER SQUASH.—The common crookneck summer squash is nice cooked like egg-plant. Peel and cut them in slices about a quarter of an inch thick, lay them in salted water, with a plate on top to keep them under. Let the slices lie in the salt-water half an hour, then wipe each one dry and dip them first into beaten egg, then in bread crumbs, salt and pepper them and fry to a nice brown in lard or good drippings.

PAINTED WALLS.—From time to time articles are published setting forth the dangers to be found in wall-papers, and there is no doubt that where one layer of paper after another is put on walls, as is sometimes done, it is injurious to health. Our houses at best are illy ventilated, and porous walls must absorb much of the poisonous exhalations of the body, the odors from cooking, the steam from the hot suds of wash-day, etc., to say nothing of the tobacco smoke which permeates every nook and corner of many houses. It seems to me that painted walls are preferable to any other, as they are impervious to odors or moisture and can be washed when soiled, or painted over at small expense. While a painted wall may lack the rich decorative effect of one covered with modern paper, yet it can be made to harmonize with the idea of a quiet home, and pictures will do the decorating.

A rough-finished wall when painted is considered more artistic than one with a smooth surface. A soft, undecided blue, a neutral tint which is more gray than blue, makes a very pretty color for walls and ceilings. A north room, which lacks sunshine, can be made to look bright and almost sunshiny by painting it cream-color. Very pale pink is pretty for a bedroom. A border of paper may be used on a painted wall if one likes.

OLD PEOPLE.—There is nothing more pathetic in the world than old people who have given up their old home into younger hands and then are made to feel that their work is done, that they are not needed any longer. We know this is the case with some that we have seen. Instead of this, if we are so fortunate as to have the father and mother in our household, we should see to it that everything possible is done for their comfort and happiness. If they have led an active life, they will be happier to still continue to do some light work when they are able. Encourage them to take an interest in the life and work of the family by often consulting with and asking their advice.

I remember, when I was a girl, of visiting a cousin who was a widow and had her aged father living with her. Father's comfort and happiness seemed to be first in her mind. He had been a farmer, and missed the old life, but she interested him in her little garden of fruits and vegetables, asking his opinion and consulting him about everything pertaining to it. No matter who was there, she was always ready to talk with father about old times and old friends, or to listen interestedly to his stories, although she may have heard them many times. Meals were served at the hours to which he had been accustomed, and old-fashioned dishes prepared to please him. His comfort was looked after in every way, and yet he was led to believe that he was taking care of her, and his life was made much more contented and happy thereby.

I know that old people sometimes grow fretful and faultfinding—sometimes from ill health, when they should be cared for all the more tenderly—but I think it is sometimes because nothing is provided to occupy their attention, and they grow to feel that they have outlived their usefulness.

If we have no old people in our own household, is there not some whose children have all passed on before, and who have no one bound by the ties of kindred to look after them. In almost every neighborhood we can find some whose last years we can help to brighten. We are all hastening on toward the sunset of life, and there is no better help toward a sweet and gracious old age for ourselves than a loving, tender care for the comfort and happiness of others. MAIDA McL.

NECESSITIES OF WORLD'S FAIR TRAVELERS.

The first thought that confronts a woman in contemplating this visit is the wardrobe, what shall it be, how extensive, with many other similar questions. In deciding these perplexing questions, take the minimum amount of clothing required, instead of the maximum.

Emancipate yourselves at this Columbian celebration of the tyranny exerted by an excessive wardrobe. What has been done can be done. The past few years European tours have been made by women with no clothing except that contained in a valise. I recall one instance in particular of this being done. A gentleman of influence and high position had occasion to make a trip to Europe. As his business required him to travel hurriedly from one point to another, he could not assume the care and bother of a trunk. For this reason he objected to his wife's accompanying him. Woman-like, she was equal to the emergency. She donned a neat, tailor-made suit, and placed in her traveling-bag a black silk suit, having two waists, one being made high in the neck, the other low.

With this meager wardrobe my lady attended many distinguished gatherings, and appeared well dressed, too. Her black silk dress with low-necked waist served for stately dinners and evening wear; for all other dress occasions the black silk with high-necked waist was worn. This trip proved especially enjoyable to both husband and wife.

Would not women whose Mecca is Chicago be wise if they would follow this lady's



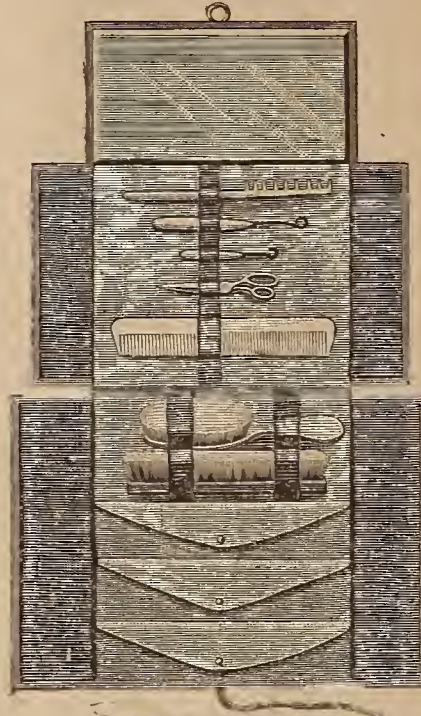
HAND-BAG.

example? All the clothes that are absolutely required for this trip are the following: Seamless stockings, with a comfortably-fitting shoe—one already broken in—two suits of union underwear of summer merino or balbriggan, a ruffled or lightweight, quilted skirt of black brilliantine or silk, and a good suit of fine serge in dark blue or gray. The skirt of this suit should be untrimmed, and finished at the waist with a girde instead of a band. There should be made to wear with this skirt a waist of soft silk and a blazer like the skirt goods. The waist should extend below the waist line about six inches. The lining of

the waist should be tight-fitting, and the outside made full.

The advantages of this suit are, that if the weather is warm, the waist can be belted and worn over the skirt, while if the weather is cool, the waist can be worn with the skirt portion of the waist under the dress skirt, with blouse effect, in connection with the blazer.

If one expects to stay some time, a black China silk should be taken for special occasions. Either a half-length or full-length wrap will be needed. Very desirable long wraps—Newmarket style—can be bought made of cravenette, a new, serge-like, dust-proof and waterproof material.



DRESSING-CASE.

The hat for traveling may be an alpine to match the suit worn. A walking-hat should be worn on the grounds.

A nicely-made wrapper of pretty, fine flannel, or colored cotton goods, will serve both for a night-dress and negligé gown.

With veil and gloves, the wardrobe is complete.

With this outfit a trunk is unnecessary. All that is required is a valise. The Gladstone traveling-bag is best, or a home-made hand-bag, with perhaps a shawl-strap. If a valise is used, it is well to tack a pocket to the lining of one side for stationery.

The hand-bag illustrated is neat-looking and commodious. It can be used to carry much or little, adjusting itself to its contents. It is made as follows: A sack measuring fourteen inches by fourteen inches is made of black broadcloth or serge and lined with sateen. The top is hemmed and a draw-string run in two inches from the top. The lower outside part of the hand-bag is made of a piece of tailor's canvas, covered with the material. A pocket is on one side for coin and the handkerchief, and one is on the other side for stationery. Leather handles are fastened to the top of this piece. This bottom piece laps over the lower part of the sack, and the bottom of the sack is plaited into it.

If a shawl-strap is used, it adds much to the neatness of the appearance of the package if a cover is made. This is easily made. Cover a piece of canvas twelve inches wide by eighteen inches long with black serge, or serge that matches the suit in color. Roll the articles to be carried together, and wrap this cover around them, after which attach the shawl-strap in the usual way.

A traveling-case is also needed. It is made of a double piece of gray or butcher's linen, with a piece of tailor's canvas between for stiffening. The canvas and inside linings are basted together, and strips of elastic and pockets with flaps are sewed to these. The pockets designed for soap, the sponge and medicines should have linings of rubber cloth basted in them. After the elastic and pockets are in place, baste the other piece of linen to the canvas, and bind all together with tape. One end of the dressing-case is finished with a ring and the other end with a piece of tape. The flaps on the sides are laid over the case, and it is rolled up and tied when not in use.

It is well in traveling to always take a few simple remedies in case of sickness. It is also well to carry a rubber hot-water bottle and a syringe. A rubber air-pillow is a convenience.

SOPHIA N. REDDIN JENKINS.

STOP THAT CONSTANT HACKING, by removing the irritation in the throat, and subduing any inflammation that may exist there, by using Dr. D. Jayne's Expectorant, a long established remedy for Throat and Lung troubles, of fifty years popularity.

CHILDREN'S GAMES.

We love to see children amused, and think the old-fashioned games very healthful pastime for them. Every mother knows the time-honored ones of "Blind Man's Buff," "Hunt the Slipper," "Hide and Go Seek," "Hide the Switch," "Pussie Wants a Corner," and others of a similar nature, of which perhaps the children have grown tired, and we think the suggestion of some new games will be acceptable at this season, when children's parties are in order.

"Hunt the Whistle" is a popular game with little English girls and boys, and may become so with their little American cousins. To play it, find out the children present who have never played the game. Those who understand it form a circle, each being seated. Those to whom the game is new are sent out of the room. At a given signal one of them returns and is invited to enter the ring, where she kneels and buries her head in somebody's lap and replies to the questions asked, which should be in relation to friendships, failings or dislikes. Who stole an apple? Who was late at school? When were you punished? or similar questions. Of course, all such charges are indignantly denied, and so time is given to attach a little ribbon with a whistle on it to the child's back; then he or she is bidden to rise and prove her innocence by discovering who blew the whistle. As the accused moves, one after another of the children catch the whistle and sound it. The frantic endeavor to discover the whistlers before they can hide the whistle or pass on, the astonishment when the sound is always behind the hunter creates roars of laughter, and no end of merriment to the little ones engaged in the play. As soon as the trick is discovered, the discoverer joins the ring of the initiated, and a fresh victim is admitted.

An auction at the close of a children's party is very pleasing to little guests. Give each the means of purchasing the goods offered—say two or three dozen beans, pins or buttons. Let them understand they can buy any parcel like to that value, or two or three smaller ones. Then have a number of trifles wrapped in pretty fancy papers and shapes—a penknife, a ball, put in little boxes; a doll in a long parcel, a game in a round parcel—all put up with a view to deceive the little purchaser as to what it really is. An older boy who is full of life and fun, should be selected as the auctioneer, and can greatly amuse the little people with jokes and laughable remarks in offering his wares for sale. When two or three guests want the same article prices go up, and the odd-looking parcels bring good prices, creating great merriment when opened and are found to be so different from what they seem. In a little while the children enter into the spirit of the fun, and enjoy the game immensely. The last articles sold should be fruits and sweets, when it should be seen to that all share equally in purchasing these articles.

Another game which has the merit of novelty is called "Tossing the Feather." To play it, form the party into groups, each group sitting as close as possible together in a round ring—about seven or eight children. Then a feather is tossed into the air, one feather for each little group. The aim of the game is to prevent the airy trifle from coming down again, and this is accomplished by blowing as hard as the players' strength will allow every time that the feathers appear to be coming too near. The one into whose lap or upon whose head the feather finally settles has to retire from the list and wait for the others to be thus turned out. As the rings of children decrease in number, they can be called from one ring to another, till a solitary victor is left alone. It is usually the merriest children who go out first, for they cannot laugh and blow, hence catch the falling feather. The game is very exciting and amusing.

These and other childish games furnish amusement to restless little ones, and when indulged in relieve the mother many times from the labor of entertaining or watching the children out of mischief.

ELIZA R. PARKER.

WALL PAPER The select colorings and designs of the season 100 samples for 8 cents A. L. DIAMANT & Co., 1634 Chestnut Street, Philadelphia. TOKOLOGY A COMPLETE LADIES' GUIDE In Health and Disease, By ALICE B. STOCKHAM, M. D. OVER 25 YEARS PRACTICE. Women write: "We consider TOKOLOGY a priceless gem." "Tokology is indeed a Bible for every woman." "Tokology is an unfathomable mine of hygienic wealth." "I owe my life to TOKOLOGY." "My husband says money could not buy our TOKOLOGY, if we could not get another." "Should my house take fire it would be the first book saved." Prepaid, \$2.75. Sample pages free. Best terms to agents. Alice B. Stockham & Co., 277 Madison St., Chicago.



**Our Sunday Afternoon.**

**ALL WILL BE WELL.**

All will be well. I heard this blest assurance Flung o'er the borders of the unseen spheres. It gave me faith and courage and endurance To walk serenely on and meet the years. Like the sweet voice of some consoling spirit, Down through the silence of the night it fell. My soul's fine ear was rightly tuned to hear it: "All will be well."

All will be well. Why should we ever doubt it? There was no blunder in creation's plan. When God's vast mind conceived and went about it,

He was not aided or controlled by man. The stars that move in such immortal beauty Through their appointed pathways seem to tell Our questioning souls, if we but do our duty, "All will be well."

All will be well. Let not our hearts be troubled By passing clouds or shadows that may fall, We must pass bravely on with faith redoubled; The glorious end will justify it all. I will believe that voice from heaven's portal Clear as the utterance of a silver bell— It spoke to me a truth that is immortal: "All will be well."  
—Ella Wheeler Wilcox, in *Advance*.

**UNSAFE FOUNDATIONS.**

A GOOD and a firm foundation is conceded by all to be indispensable when building any kind of a structure. In our large cities men expend large sums of money in digging deep and laying such a foundation as that any amount of weight will not cause it to sink or shake. They are erecting buildings of such a character that they expect them to last forever, not believing that the world will come to an end. They calculate that these lofty and artistic structures are absolutely fire-proof.

A distinguished young French scientist is expecting to build a conservatory on the summit of Mont Blanc, in Switzerland, for the purpose of obtaining better astronomical views; but it is impossible for him to clear the snow away in order to get a rock foundation. So by some experiments he has concluded that by compressing the snow to a certain density, he can safely erect his building upon it.

Although he cannot remove the snow, but calculates that it will sustain the weight of his building as long as it will be needed, yet when this world is wrapped in flames and the elements are melting with fervent heat, as Peter said it would be, snow foundations, steel foundations and every other kind of foundation, except that which is founded upon the Rock of Ages, will not only shake, but melt and consume away. What man calls fire-proof will not stand before the flames of the Almighty any longer than a snowball on a hearth. The shakings of God's earthquakes will make every foundation tremble, unless it be rooted and grounded in faith and love. Man cannot build against God. The only safe way is to believe God's word, conform to it and be ready when he comes.—*The Firebrand*.

**JESUS AND THE RESURRECTION.**

"The resurrection of the Lord Jesus is the central fact of Christianity. Christianity in its last analysis consists of two elements—a person and a fact. The person and the fact are joined in the condition of salvation: 'If thou confess with thy mouth the Lord Jesus, and believe in thy heart that God raised him from the dead, thou shalt be saved.' The resurrection is the basis of our acceptance: 'It is imputed to us for righteousness, if we believe on him who raised up Jesus our Lord from the dead.' It is the ground of our justification: 'He was delivered for our offenses, and was raised again for our justification.' It is the source and standard of all Christian living: 'If ye then be risen with Christ, seek those things that are above, where Christ sitteth at the right hand of God.' It is the highest Christian attainment: 'I willingly suffer the loss of all things that I may know him and the power of his resurrection.' It is the measure of God's power in the saints: 'That we may know what is the exceeding greatness of his power toward us who believe, according to the working of his mighty power which he wrought in Christ when he raised him from the dead.' Without it there is no Christianity and no salvation: 'If Christ is not raised, your faith is vain, ye are yet in your sins.' The resurrection is the beginning, the sustentation and the consummation of the Christian life. The ordinance of baptism commemorates the resurrection of Christ."—*Rev. H. G. Weston, in Baptist Teacher*.

**RELIGION AND BUSINESS.**

Happy is the man of business who, in this age of speculative and lawless greed, so regulates his financial pursuits by the golden rule as to feel justified in committing them to the care of God, fully persuaded that his providence will guide him to as much prosperity as shall best promote his spiritual and eternal well-being. Such a man, instead of torturing himself with foolish forebodings, will strive to obey the precept, "In nothing be anxious," believing that God will "guide his heart and his thoughts." Should that providence deem financial reverses profitable to his higher life, he will gracefully and cheerfully accept them. He will not, as John Newton suggests, like one going to take possession of a large estate to which he is heir, take to blubbering because his carriage has broken down, when he is within a short distance of his property, and makes it necessary for him to finish his journey on foot. But looking with steadfast faith on his heavenly inheritance, he will cultivate contentment with his changed earthly condition, saying with John Fletcher, "I want nothing but more grace."—*Christian Advocate*.

**TAKE WHAT YOU HAVE.**

A very wholesome lesson is given us in the example of the Israelites with regard to their free gifts for the tabernacle. Each one took such things as he had. Some had gold, others had silver, and still others had brass. One had stones for the ephod, another had oil for the lamps, another had spice; some had bracelets, some ear-rings, and some had fine linen. In fact, they all had something, and each took of the things he possessed, whether it were little or large, of much value or of but small worth. And it does not appear that he who had but little to give refused to offer it because it was not equal to what another had. The small gifts were as acceptable to the Lord, if they were the best the owners had, as were the greater gifts of those who possessed them. This is a beautiful, noble, inspiring example. The application to ourselves is pertinent and forcible. Take what you have, be it ever so small, to the prayer-meeting, the conference-room, the Sabbath-school, and the treasury of God's house. Make no apology for the littleness of the gift, if it be the best you have.

**LOWLY LIVES.**

There are great multitudes of lowly lives lived on the earth, which have no name among men, whose work no pen ever records, but which are well known and unspeakably dear to God. They make no noise in the world, but it needs no noise to make a life beautiful and noble. Many of God's most potent ministers are noiseless. How silently the sunbeams fall all day long upon the fields and gardens, and yet what joy, cheer and life they diffuse! How silently the flowers bloom, and yet what sweet fragrance they emit! How silently the stars move on in their majestic marches around God's throne, and yet they are suns or worlds! So Christ has many earthly servants, who work so quietly that they are never known among men as workers, whom he writes down among his noblest ministers. They do no great things; but they are blessings, oftentimes, perhaps, unconsciously wherever they go.

**HE CARETH FOR YOU.**

Speaking on the subject of "rest," Mr. Moody said in one of his addresses in England recently, that Christians should not carry a burden of cares and troubles. Some people seem to take a morbid pleasure in raking up all the sorrows of the past; to these they add the burdens of the present; then they look ahead and anticipate a great many more trials than they will ever experience in the future; they tie them all together, swing them across their shoulder, and go reeling and staggering through the world with the accumulated load. If they should come to a warm religious meeting they lay their burdens down for the moment and say to themselves, "What a refreshing time we have had," but no sooner do they leave the pew than the old load of trouble is shouldered, and they are as downcast as before. Cast all your care upon the Lord, for he careth for you.

**A TOBACCO-STINKING BREATH**

is not nice to carry around with you. If you are tired and want the means of an immediate release, get a box of NO-TO-BAC, the harmless guaranteed tobacco-habit cure. Sold at drug stores. Book called, "Don't Tobacco Spit and Smoke your Life Away," tells all about it; mailed free. Write to-day. Address THE STERLING REMEDY CO., Box 763, Indiana Mineral Springs, Ind.

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All the dirt of ages it will undermine; When we learn to use it,



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the spots on the floor, the dirt on the wall, the finger marks on the doors, the stains on the windows, the grease on the dishes, the tarnish on the silver, are quickly removed. You can get "other kinds," but they all cost more money and require more effort.

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**WHAT IS FAITH?**

What is faith? It is a belief in things which we do not see. "It is very difficult to believe in what you cannot see," you say. Well, whether it be difficult or not, you do so every day of your life. You would like to grow some gay, lovely flowers in your garden. You purchase a packet of seeds. There are a number of little, dry, hard, dark atoms—not in the least like the bright blossoms you want. But you are told by the man who knows, that these are seeds of the flowers which you desire to grow; so you take them and put them into the ground. That is faith. Then, after a few weeks you see a little bit of green appear above the earth, and you are quite happy. You say, "I see my flower is coming up all right." But it is not a flower; it is only a little bit, as it were, of green grass, and has not a single one of the colors which you are looking for in your flower. And yet you feel quite certain that it is all right. That is faith again. And then at last, after more weeks of sunshine and shower, the full, glorious flower bursts forth in all the variety of its colors and the glory of its form. Then you need no more faith in this matter, for you see the flower itself.—*Rev. T. Teignmouth Shore, M. A.*

**SONGS IN THE NIGHT.**

It is said of a little bird that it will never learn to sing the song its master would have it sing while there is light in the cage. It learns a snatch of every song it hears, but will not learn a full separate melody of its own. But the master covers the cage and makes it dark all about the bird, and then it listens and learns the song that is taught it, until it becomes its own. Ever after that it sings that song in the light.

It is much so with us. We will not sing the song God would have us to sing till he puts us into the darkness of true conviction. Then the voice of the blessed Savior can teach us a new song, and ever we will sing it in the light he gives. The sweetest songs are sung by those who have come out of darkness, and God "who giveth songs in the night" will give us such joy and peace in believing, that our songs, begun in the darkness of sorrow, like the angel anthems over the plains of Bethlehem, shall roll on in perpetual fullness of the perfect day that is to come.—*The Christian*.

**SINGULAR.**

The skeptic who says he hasn't faith enough to believe in anything at all, will go peacefully in a car on a night express-train, reasonably sure that the engineer will bring him through all right.—*Somerville Journal*.

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CAUTION.—See that the name Beeman is on each wrapper. The Perfection of Chewing Gum and a Delicious Remedy for Indigestion. Each tablet contains one grain Beeman's pure pepsin. Send 5 cents for sample package. THE BEEMAN CHEMICAL CO., 39 Lake St., Cleveland, O. Originators of Pepsin Chewing Gum. Mention this paper when you write.

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**Farm Gleanings.**

**MAIZE FOR THE NATION'S EMBLEM.**

Upon a hundred thousand plains  
Its banner rustled in the breeze,  
O'er all the nation's wide domains,  
From coast to coast betwixt the seas.

It storms the hills and fills the vales,  
It marches like an army grand,  
The continent its presence hails,  
Its beauty brightens all the land.

Far back through history's shadowy page  
It shines, a power of boundless good,  
The people's prop from age to age,  
The one unfailing wealth of food.

God's gift to the New World's great need,  
That helps to build the nation's strength,  
Up through beginnings rude to lead  
A higher race of men at length.

How straight and tall and stately stand  
Its serried stalks upright and strong!  
How nobly are its outlines planned!  
What grace and charm to it belong!

What splendid curves in rustling leaves!  
What richness in its close-set gold!  
What largeness in its clustered sheaves,  
New every year, though ages old!

America from thy broad breast  
It sprang, beneficent and bright,  
Of all the gifts from heaven the best,  
For the world's succor and delight.

Then do it honor, give it praise!  
A noble emblem should be ours;  
Upon thy fair shield set thy maize,  
More glorious than a myriad flowers,

And let the states their garlands bring,  
Each its own lovely blossom-slug;  
But leading all, let maize be king,  
Holding its place by right divine.

—*Celia Thaxter, in New England Magazine.*

**IMPROVING THE FARM.**

Two young men, by the sudden death of their father, were left a 100-acre farm. One had learned the mason's trade, and the other desired to be a railroad engineer. They therefore determined to sell their new possession. But no buyer appeared. Several who looked at the place admired the buildings, conveniences and broad, smooth fields, but made no offer. At last an elderly man, after going over the place three different times, said to the owners: "Boys, the farm is fertile, it lies right, is on a good road and near enough to market and social privileges, and the buildings suit me, but—" and there he stopped. "Well, what is it?" exclaimed the elder. "Is the price too high? Haven't you anything to pay down? Can we not come to some understanding?" "Yes," he replied; "I have the purchase money in my pocket. I came this time intending to buy, and your price is reasonable, if— On my way here I passed an orchard bending with beautiful fruit, and men were picking and barreling. Oh, how fragrant it all was! At my time of life I could never hope for such luxury from my own plauting. I cannot buy." In vain the owners urged him to a different decision, even reducing the price of the place \$500 and including a pair of horses. The suggestion was a potent one, however, to the owners. They decided to set an orchard at once, and within a month had three acres planted to trees.

The following spring the area was doubled, only three varieties being chosen (Porter's pippins and Baldwins), and the young men went "to work for a year or two to make the place salable." The trees grew apace, and so did the youths. At the end of two years the farm was so different in appearance and so full of interest that they hardly thought of leaving it. The younger boy had learned about the habits and characteristics of borers, and going still further, had become interested in other insects. The other had visited the fruitful orchard of the neighbor mentioned and had mounted a hobby-horse. Five years from the setting of the first trees an offer of more money was made to them than their original selling price, but they declined it. Five years still later an offer of double their old price would be no temptation. They have learned to bless the old gentleman for not buying them out, and no other spot on earth is so dear to them. The trees have not yet yielded much in money, but the farm has been made to pay in other directions, and the owners are more than satisfied with what at first was termed their "bad luck." To-day they acknowledge what many an older man has proved, that fruit-trees have a potency not only to increase farm values, but one's interest and general welfare, even before the luscious fruit is borne.—*Hollister Sage, in N. Y. Tribune.*

**THE PIGEON AND POULTRY HOUSE.**

Many designs have been published of "combination" poultry and pigeon houses. The inference is often that the originators of these designs have not tried the plan they recommend—that of keeping poultry and pigeons in the same house, the pigeons in the upper story. Usually these designs are for poultry alone, and to please the pigeon fancier, an annex in the roof is added.

Poultry and pigeons should not be kept in the same house. The writer has tried it to his dissatisfaction and loss. If a flock of pigeons be kept for "looks" or for "company," the top of the hen-house may serve as a nesting-place, but if any attempt be made to cultivate for squabs or for fancy, they must be separated.

As far as heard from, all hens and cocks have lice. The cleanest house is not free from them, even if it be whitewashed every week, and lice like heat, rise—climb up as far as they can get if the temperature continues to agree with them. When a house is built to accommodate both hens and pigeons, one over the other, the floor between is not made as tight as it would be if exposed to the weather, and if it be made tight—tight as it can be with matched boards and glue, the matching will shrink. There will be shrinkage somewhere anyway it may be built, and upward will travel the lice host. There is nothing so inviting to an army of lice as squabs—the younger the better.

Usually, pigeons over poultry-houses are under the roof, an intolerable hot place for any creature, except pigeons and lice. Pigeons appear never to be too warm, and lice delight in a temperature of one hundred and over. The roof of the house, often, if not usually, is not high enough above the floor to allow a person to stand upright, unless in an A roof in the center, or if a lean-to roof, on one side.

Now, the man who keeps pigeons for profit or pleasure must be able to get into every part of it conveniently. The nests and the floor must be kept clean, and it is often necessary to catch pigeons in the loft. To do all this, bent double, or on hands and knees, especially when the temperature is one hundred or more, is enough to cure a man of the fancy.

If pigeons cannot have a house of their own, they should have a room where a person may stand upright in every part. Then the fancier may control his birds without breaking back and losing temper, and without swinging in the loft the terrifying catch-net on the end of a pole when it is desired to catch a pigeon. In another paper I propose to give a plan of a pigeon-house, and a plan of a pigeon-loft in a house not designed exclusively for pigeons.

GEORGE APPLETON.

**THE FARMER'S "NOONING."**

On many farms the farmer and his men rush in to dinner at twelve o'clock, eat dinner in fifteen or twenty minutes, often bolting their food in less time than that, and then rush back to the field again. Apparently, the farmer thinks that every minute saved in the middle of the day is gain, but it is nearer the truth to say that he shortens his life every time he takes dinner that way. That must be the result; no other is possible from the nature of things.

The man who lives to eat finds great enjoyment during the meal; but really, if he does not overload his stomach, the height of enjoyment comes at the close of the meal, when the appetite is satisfied and the body is in repose. There is then a sense of absolute contentment. Then comes the drowsy feeling, which if yielded to leads to delightful sleep, refreshing, if the digestive organs run against no snags in their attempt to work over for the maintenance of mind and body the contents of the stomach.

It is a law of nature, common to both men and animals, that between the eating and the resumption of labor, there shall be an interval of rest. Nature demands it, and will have its revenge sooner or later if it be denied. Many farmers are more merciful to their animals than to themselves. The farmer will say, "Let the horses rest awhile," but he does not rest till he gets to his bed, and even then, possibly, owing to indigestion, the result of bolting his food, may find only unrest.

Not long ago a man exclaimed at the dinner-table where we were sitting a few minutes after dinner, "I must go to work or I'll fall asleep." That is exactly what the farmer ought to do after dinner. What! Sleep in the middle of the day—the busiest time—in haying-time? Yes, sir, if you

want to live out your days, and do more work in the afternoon and do it easier, take a nap after dinner—a nap of twenty minutes or half an hour.

It has been said by eminent medical authority that the workman may prolong his life by the simple act of lying flat on his back in the middle of the day, between eating and the resumption of work. If a man lie this way for only five minutes, it is a better tonic than any of the so-called bitters. There are twenty-four cushions in the spinal column. The longer a man is on his feet, the more these cushions become depressed. During the war a man who was of the required height—just up to it—escaped the draft by remaining on his feet for some time—as long as he could—before he was examined. By so doing he had flattened out his vertebral cushions so that he fell under the required height.

In this lying flat, every muscle is relaxed and rests. To sit in a chair and nearly fall out of it from dozing and nodding is not rest. Give up, surrender every muscle for a few minutes, and you will see the wisdom of it.

Another feature of the farmer's nooning is important. Many a man has gone to dinner hungry, with a keen appetite, and had it dulled and the edge turned by what he saw and smelled in the dining-room. No man who has worked in the hot sun all day wants to eat in a hot kitchen, with the pots and kettles still simmering and the odors rampant.

The setting of anything goes a great way. A poor picture may appear to advantage in a good frame, and a good picture may be spoiled by the frame. Exactly so with a dinner. A rich and costly dinner may be served in such a way as to turn a man's appetite, and a scant, plain dinner may appeal to the appetite and whet it by its surroundings. A spick and span white tablecloth is not food, but it seems to make food taste better.

Crockery and glassware are so cheap now that it costs very little to set a table to invite appetite, as well as the table of the millionaire loaded with cut glass and silverware. In warm weather the more glass on the table the better, for it is cool and is cooling in appearance.

And flowers, even wild-flowers, give the table an aristocratic appearance. The object of a dinner (eating) is not only to fill the stomach. The farmer wants to rest while he eats, and get all the comfort and enjoyment he can from the dinner, eaten slowly, from the conversation and from the surroundings. Make more of the dinner, of all meals, and of the "nooning," and life will be longer, and will be more enjoyable.

GEORGE APPLETON.

**MILKING-TIME.**

A few suggestions in regard to summer management may not be out of place at this time.

It is a good thing to enforce the rule of perfect quiet; no loud talking or any distracting noise. Keep the stable perfectly clean. It will help greatly in this respect to let the cows remain outside ten or fifteen minutes after they come to the yard. Absolute regularity in the hours of milking. Consider the cows and all that pertains to them a part of the regular business of the day, to be done *inside* of the working hours. Always have a feed of bran in the manger at night. It will bring them from the pasture better than a dog, and is the cheapest way to get them to the stable regularly. In case of cold, uncomfortable rains, or bad weather of any kind, put the cows in the stable even in midsummer. It will pay. They always charge the owner for any discomfort and take their pay in milk. Each milker should milk the same cows every time. Make a rigid rule that the cows shall have all they can eat. If the pasture in midsummer will not furnish it, provide it some other way. Never delude yourself with the idea that you can make a cent by withholding food from the cow. This folly prevails very widely. Indeed, we may say a majority of the dairymen in the United States and Canada will not provide a liberal supply of food for their cows when the pinch comes in July and August. The profit from milk is low at that time, butter and cheese bringing low prices. That fact seems to blind them to the importance of keeping a cow up to a strong flow. The best a majority will do is to feed a little watery, immature sowed corn. It helps a little. But the cows everywhere are short of feed at that time. A real square cow farmer, one who understands cows, will see to it *always* that his cows have all the feed necessary to

make milk when they are giving milk. He must do this in order to get the best profit out of them the whole year round.—*Hoard's Dairyman.*

**SHORT FURROWS.**

Some men complain of hard times who sleep themselves into poverty.

Don't complain of your wife's extravagance, with a cigar in your mouth.

Dehorning is cruel, when it is done with a club in the hands of an angry man.

Why don't those fellows who know the short roads to success ever try them?

The woman who tells others how, does not always keep her own house the tidiest.

Stand around with your hands in your pockets and see how quick you will get rich.

The commandment to rest one day in seven is just as binding on your horse as it is on you.

I wouldn't give much for that man who doesn't feel a thrill of joy every time he reaches the top of a hill.

To the industrious farmer no birds sing so sweetly as the robins, who strike their first notes about four o'clock in the morning.

It will pay you to practice the art of love-making upon your horses. The more they love you the better service they will give.—*American Agriculturist.*

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**Selections.**

**HOW GRANDMA DANCED.**

Grandma told me all about it;  
Told me so I couldn't doubt it,  
How she danced—my grandma danced—  
Long ago.

How she held her pretty head,  
How her dainty skirt she spread,  
How she turned her little toes;  
Smiling little human rose!  
Long ago.

Grandma's hair was bright and sunny,  
Dimpled cheek, too—ah, how funny!  
Really, quite a pretty girl,  
Long ago.

Bless her! why, she wears a cap,  
Grandma does, and takes a nap  
Every single day; and yet  
Grandma danced the minuet,  
Long ago.

Now she sits there rocking, rocking,  
Always knitting grandpa's stocking  
(Every girl was taught to knit  
Long ago);

Yet her figure is so neat,  
I can almost see her now  
Bending to her partner's bow,  
Long ago.

Grandma says our modern jumping,  
Hopping, rushing, whirling, bumping,  
Would have shocked the gentle folk,  
Long ago.

No—they moved with stately grace,  
Everything in proper place;  
Gliding slowly forward, then  
Slowly courtesying back again,  
Long ago.

Modern ways are quite alarming,  
Grandma says; but boys were charming—  
Girls and boys I mean, of course—  
Long ago.

Bravely modest, grandly shy—  
What if all of us should try  
Just to feel like those who met  
In their graceful minuet,  
Long ago?

With the minuet in fashion,  
Who could fly into a passion?  
All would wear the calm they wore  
Long ago.

In time to come, if I perchance  
Should tell my grandchild of our dance,  
I should really like to say:  
"We did, dear, in some such way,  
Long ago."

**SAVED BY SUNSHINE.**

I think the superb health of my family is to a great extent due to the habit we have of almost living in sunshine. Every bright day all of the shutters are open, and the entire house gets the benefit of sunlight. It drives away dampness, mold, microbes and blue-devils, and puts us all in good humor and health. I cannot imagine good sanitary conditions and darkness. Even my cellar is as light as I can possibly make it, and whatever fruit and delicacies need to be shut away from light I put in close cupboards or covered boxes. I have sheets of canvas that can be thrown over them before they are put away, and always take pains so to arrange my stores that nothing will be injured by an abundance of light. People who live in badly-lighted apartments have little color and less health. I for one do not intend to spend my days in an atmosphere of gloom.—*New York Ledger.*

**ALWAYS ROOM FOR DISCOVERY.**

We hear so much about the material progress of the age, our wonderful inventions and the great discoveries that are destined to be of untold benefit to man, that it is well sometimes to take a look through the big end of the field-glass and see how little really has been accomplished in comparison with what remains to be done. For in truth we have but scratched the surface of the globe to a very small extent. The north temperate zone alone has begun to be developed, and it is only a beginning—the wastes of Siberia still lying practically uncultivated—while the south temperate zone and the tropics are scarcely touched, with their untold wealth of animal and vegetable products, besides the undoubted mineral resources which they contain.

The new process of cheapening aluminum, one of the largest components of the earth's crust, brings into the field of industrial activities a substance which is destined to work a revolution in mechanics and the applied sciences. Who knows what other uses may be found for the commonest materials lying at our feet? The lesson of it all is that there is always room for discovery and that we are nowhere near the exhaustion point of the earth's resources.—*N. Y. Herald.*

It isn't so far out of the way when the little ones ask for "some more spanked cream," meaning whipped cream.

**SOME POINTS ABOUT LACE.**

It is well to be up on lace lore this season, for with the revival of the genteel, old-time decoration comes a demand for some idea of the characteristics of the different patterns for which one pays such fabulous prices.

In the first place, all real lace is handmade lace, and is easily detected from the machine-woven imitation, because the meshes in the genuine are apt to be irregular, while the other is uniform in weave.

The net of the lace is called by lace-makers the reseau, the pattern is the fleur, and it is in the shape of these meshes that lace distinctions appear. The square or diamond-shaped mesh is used in Valenciennes, the six-sided mesh in point d'Alencon, and Chantilly and point de Paris laces have an odd mesh of four-sided big holes, with triangular holes between.

Now, the chief difference between the pillow and needle laces, which are made in but two ways, one with the pins and bobbins, the other with the needle, is in the way the fleur or pattern is worked on the net. Needle lace has a distinctiveness of outline in the fleur, because the pattern is outlined by running a thread in and out of the meshes of the reseau. If the outline is to be very much in relief, as in point d'Alencon, the most beautiful of all needle laces, the outline is corded in with horse-hair, and then the pattern made by filling in the outlines with a sort of buttonhole stitch, making a rich and heavy effect like embroidery. The reseau in this lace is complicated, too, by twisting the threads of the meshes together here and there to make bigger holes, and thus giving a variety to the mesh. This lace is made piece by piece, the pieces joined together by invisible seams. Pillow laces have a flat, smooth pattern and are smooth and soft in outline.

La grippe was so named by Louis XV in 1743, when, during the months of February and March, nasal and bronchial catarrh were epidemic in France. The treatment consisted in drinking copiously of cold water and in cupping.

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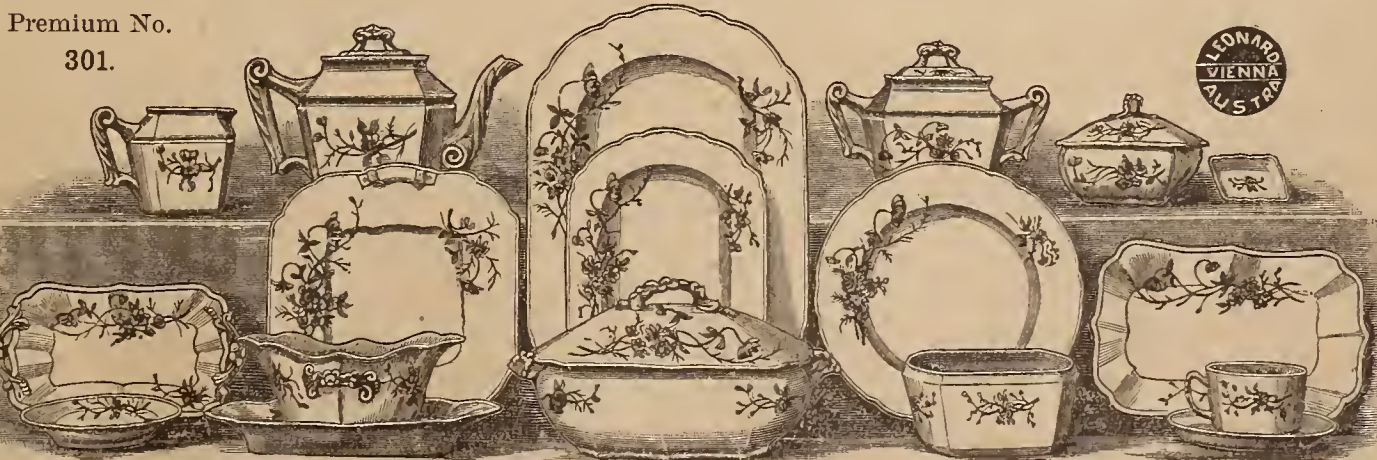
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BEFORE GOING TO SLEEP.

Dear Father! all this lovely day
My hand has lain so warm in thine
That all along the fair, flowered way,
My eyes have seen thy footprints shine.

Follows upon thy day sweet night;
When I creep closer to thy heart,
Reminded of that hour whose flight
Shall make and keep me thine—apart!

Hold me through all the dim, soft hours—
Hold me, my Father! close and fast;
As sweetly safe as folded flowers,
And wake me with thy smile at last!

—Howard Glyndon.

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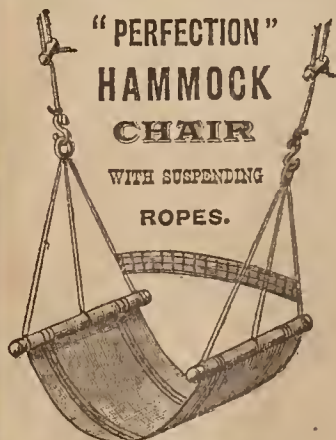
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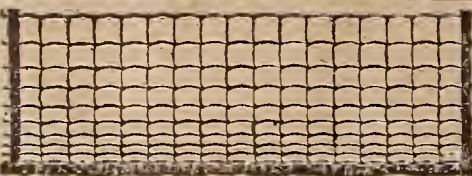
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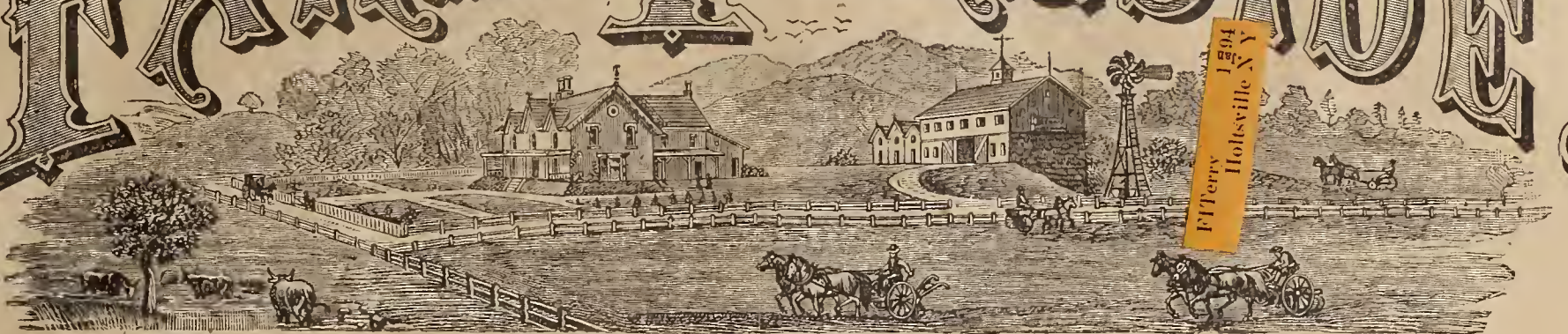
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# FARM & FIRESIDE



EASTERN EDITION.

Perry  
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VOL. XVI. NO. 20.

JULY 15, 1893.

TERMS { 50 CENTS A YEAR.  
24 NUMBERS.

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## Current Comment.

IN Haymarket square, Chicago, stands a statue of a policeman with uplifted hand. On the base are these words: "In the name of the people of Illinois I command peace." This monument was erected a few years ago in honor of the brave policemen who were killed by a dynamite bomb while quelling an anarchistic riot. The principals engaged in this riot were tried, convicted and condemned, some to death and others to imprisonment. Recently those serving out their sentences in state's prison were pardoned by the governor of Illinois.

If Governor Altgeld wished to test the force of public opinion, he has certainly made a notable success of it. Excepting the advocates of anarchy and the friends of anarchists, the people have most emphatically condemned the action of the governor in pardoning these criminals.

Anarchy and Altgeld—both have dishonored the fair name of Illinois—will remain associated together until the latter is forgotten.

The Haymarket tragedy brought peace. Since the conviction of the rioters, anarchy has scarcely dared to lift its head in this country. The governor's pardon may rouse the spirit of this now silent enemy of society and good government and encourage it to deeds of evil, but his action has called back clearly to the public mind the events of the past, and the people are on their guard. There is not a single square inch of room in this country for anarchy.

Governor Altgeld's long special plea in behalf of the anarchists, in which he goes out of his way to strike at an upright judge, is denounced almost as severely as his pardoning of the criminals. Says the *New York Sun*:

"The windy, oratorical tone of Governor Altgeld's statement, or misstatement, in the case of the pardoned anarchists, Schwab, Fielden and Neebe, must strike every reader of that extraordinary document. It is not a calm and impartial review of the evidence, but the bitter plea of a lawyer for the defence bent upon bullying and overriding the judge and the prosecution. \* \* \* Apparently, in the eyes of the Hon. John P. Altgeld, the anarchists were suffering innocents, while Judge Gary and Mr. Bonfield were ravaging and malignant persecutors.

"We do not know whether or not the reports are true which represent Altgeld as a sort of Know-Nothing turned inside out; that is, a man who thinks that a foreign-born American is better than a native-born American. At any rate, there have been reports, for some time, that he was fishing

for the so-called labor vote, and hoped to be elected a senator in Congress by reason of it. Only a day or two before the pardon of the anarchists the *Inter-Ocean* published the report that it was his object to make himself sure of the Cook county labor vote. By the labor vote is meant, of course, not the vote of laboring men, but the vote controlled by the noisy and worthless agitators, almost invariably foreigners, of whom Chicago is full."

PRESIDENT CLEVELAND's proclamation convening the fifty-third Congress in extra session August 7th, reads as follows:

"Whereas, the distrust and apprehension concerning the financial situation which pervade all business circles have already caused great loss and damage to our people, and threaten to cripple our merchants, stop the wheels of manufacture, bring distress and privation to our farmers and withhold from our workmen the wage of labor; and

"Whereas, the present perilous condition is largely the result of a financial policy which the executive of the government finds embodied in unwise laws which must be executed until repealed by Congress;

"Now, therefore, I, Grover Cleveland, president of the United States, in performance of a constitutional duty, do by this proclamation declare that an extraordinary occasion requires the convening of both houses of the Congress of the United States, at the capitol, in the city of Washington, on the seventh day of August next, at 12 o'clock noon, to the end that the people may be relieved through legislation from present and impending danger and distress.

"All those entitled to act as members of the fifty-third Congress are required to take notice of this proclamation and attend at the time and place above stated."

The special purpose for which this extra session of Congress is called is the repeal of the silver law of July, 1890, or, at least, those provisions of the law which relate to the purchase of silver bullion. There being a widespread opinion that the law is responsible for all the present financial troubles, the meeting of Congress and the repeal of the law will do much to restore confidence and improve the condition of all kinds of business, for awhile at least.

The silver law of 1890 is responsible for some of the present troubles, but not all of them. The monthly issuance of treasury notes, practically redeemable in gold, in payment for silver bullion, is a tremendous strain on the credit of the government. The silver-purchase provisions of the so-called Sherman law ought to and will be repealed. They ought to have been repealed last winter. Congress failed to do its duty then. It will fail again if it substitutes for the silver law any financial scheme involving a depreciated currency. Even an unconditional repeal of the law will not prove a remedy for all the present business troubles. There are other questions affecting business of all kinds that must be settled before confidence can be fully and permanently restored.

If Congress should promptly and satisfactorily dispose of the silver question, it will not be half way through the work before it. It has the tariff question to deal with. Until the policy of the administration on the tariff is clearly defined and formulated into laws, there will remain an uncertainty seriously depressing all forms of business.

The resources of the country are unim-

paired, there is neither plague nor famine in the land, crop prospects are very promising, but uncertainty and want of confidence are almost universal. Confidence can be restored and uncertainty removed. Will Congress do it?  
That remains to be seen.

FARMERS' bulletin No. 12, recently issued by the department of agriculture, is entitled "Nostrums for Increasing the Yield of Butter." It can be obtained by applying to the secretary of agriculture, Washington, D. C. Let every farmer interested in dairying send for it. It gives a complete expose of the black pepsin and other frauds that have been so largely advertised in the past few months. In conclusion the bulletin says:

"The actual value of a box of the so-called black pepsin is only a few cents, and therefore the enormous profits which are made in its manufacture and sale at \$2.50 a box can well be imagined. It is not believed that any further exposition of this barefaced fraud is necessary. We have made an attempt to obtain samples of all the various compounds which are sold for producing the effects described. There are many of them, however, which we are not able to get. Farmers can rest assured that any substance which is presented to them for the purpose of increasing the yield of butter above that of the normal belongs to some such class of fraud as has been exposed in this bulletin.

"The proper way for increasing the yield of butter is to secure a breed of cows giving milk with a high content of butter fat, providing the animals proper nourishment and keeping them in a clean and healthy condition. The proper treatment of a herd of cows, together with neatness in the dairy, not only will give an increased yield of butter, but will also enable the producer to get an increased price.

"The best method of making a good and sweet butter in large quantities is careful selection of cows and careful feeding and care in the dairy. The proper attention to neatness and the sterilization of the vessels used about the dairy will secure the growth of a ferment which properly ripens the cream and excludes other ferments, which produce all kinds of injurious changes in the milk. All vessels used in the dairy should be subjected every day for some time to the temperature of boiling water, to absolutely exclude all putrescent bodies and fermentative processes from the dairy, save those which are necessary to the normal ripening of the cream. The farmer who attends to these details will have no occasion to invest his money in fraudulent nostrums for increasing the product of his dairy and the magnitude of his profits."

SECRETARY MORTON made a strong appeal to the farmers when he said: "The Granite Mountain Mining Company produced refined silver in the year 1887, or 1888, according to its report to the secretary of the treasury, to the amount of nearly 3,000,000 ounces, at a cost for refined silver of twelve cents an ounce. The whole output cost that year was \$36,800. Coined at 41 1/2 grains to the dollar, it would make over \$3,000,000 of legal tender for over 3,000,000 bushels of wheat, the labor cost of which is more than \$3,000,000. That is, by free coinage, under law, \$36,800 of mine labor is made and forced to an equality with \$3,000,000 of farm-labor cost. By law this free-coined silver will, when it represents only \$36,800 of mine labor in Montana, be made exchangeable for \$3,000,000 farm labor in Nebraska."

AFTER a political campaign and an election that attracted the attention of the world, the German government finds itself with a majority of the members of the Reichstag in favor of a bill to increase the size of the army. It is said that the German army, including reserves, now numbers five millions, and that the annual war tax is over \$560,000,000—a sum greater than the total annual expenditures of our own government. Great as they are, both the war tax and the size of the army are to be increased, not for war, but for peace; that is, to make the empire so formidable that no other power dare attack it. Other nations of Europe will strive to do the same. The military system that maintains the peace of Europe by making an armed camp of each country is a terrible burden on the people, and must in time break down from its own weight. Happy is our own land without it.

THE South has been making an important advance in agriculture. Although cotton is yet the great leading staple crop, the aggregate of other crops now largely exceeds it in value. In 1892 the value of the cotton crop was about \$315,000,000. In the same year the total value of corn, wheat, oats, tobacco, rice, fruits and vegetables was over \$350,000,000. Diversified crops have overtaken and passed the great staple. No longer is the southern farmer entirely dependent on the success or failure of the cotton crop. The overproduction of the cotton crop, with consequent low prices, has forced the southern farmer to diversify his crops. The plan having been adopted, it will not be abandoned. The new agriculture of the South means a great improvement in the condition of things and a more rapid development of the agricultural resources of the South.

THE annual report of the Ohio state food and dairy commissioner shows both the efficiency of the work done by Dr. McNeal and the need of his department. During the year ending in May, one hundred and thirty-six prosecutions were brought for violations of the pure-food laws. Eighty-three of the defendants pleaded guilty, fifteen were tried and convicted, fifteen were tried and acquitted; six cases were dismissed as defendants' cost and six at cost of the state. Eleven cases are now pending in courts, five of them on appeal to higher courts. It is no wonder that a determined fight has been made against the commissioner and against the laws which he has been enforcing. This work has been done in the true interests of the people, and they heartily approve of it.

WHAT our contributors say in this issue of FARM AND FIRESIDE about the World's Columbian Exposition, we are fully prepared by a delightful week's visit to endorse. To all who possibly can, we say, "Go and see." In no other way can you form an adequate conception of its magnitude and magnificence. It is beyond description. It will go beyond your expectations, for it is one of the few things in the world that goes ahead of the brag. Few and small, indeed, must be the souls that, after seeing it, will regret the time and money necessary. The regrets will come from those who do not go and see, although they can never realize how much they have missed. "Go and see," at the best opportunity you can make.

## FARM AND FIRESIDE.

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We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

## Our Farm.

### WORLD'S FAIR AND OTHER NOTES.

WILL IT PAY TO SEE THE FAIR?—I have spent about a week in Chicago, and more money, too, than I usually earn in that length of time.

But I do not regret it. The chances are that I shall go again in the fall to see more of the horticultural and agricultural products than on exhibition. I feel well repaid for my first trip, and I think it will pay any one to spend a week or two in Chicago, who will go there with his eyes open and ready to learn. The "white city" is a grand production indeed; the splendor of old Rome rebuilt in a few days. Unless you see for yourself, you can have no conception of the extent and magnificence of the grounds and buildings. It takes a day or two for even the more experienced traveler to find his bearings and get acquainted with the location of the numerous buildings and exhibits. First of all you want a general idea of what there is to be seen, and then you can settle down to the study of just the things that interest you, individually, more than others.

I believe that a week or ten days spent in examining the exhibits at Chicago is worth to any one more than a year's course at college. The fair is a wonderful educator, and an international aid in the promotion of civilization. Let everybody go who can, and take his family, too, if possible. School learning is all right, but as a means of acquiring knowledge and wisdom is rather slow, especially while the brain powers lack the training that comes with age. Through impressions of the eye and contact with the world you can often learn more in a day than by studying books for a week. By all means, profit if you can by the educational chances which the Chicago fair offers to everybody. The visit is worth all it may cost.

The next question is, when is the best time to go? To people of means, or all who do not particularly care whether the trip cost \$50 or \$100, I would say, go now, before the great rush. Now you have to pay full fare, but you can go on trains less crowded than they will be later on, and on the whole, you will find better accommodations and greater convenience in traveling. The railroads have thus far shown very little indication to be liberal. A world's fair does not come every year, and these "greedy monsters" will try to make hay while the sun shines. They are not in the business of railroading for fun, nor for the accommodation of the public, but for the dividends they can get out of it for their watered stock. It may pay them better, temporarily, to carry a million passengers at full rates of fare, than two millions at

half fare. But this lack of consideration and liberality must and will react against them in the end. Want of courtesy to the public at this time will certainly help to make the idea of government ownership of railroads popular. Railroads, if they are wise, should not defy the popular demand for and popular need of cheap fares to the fair.

There can be no doubt that later on the fares will be reduced, and for short-time excursions, occasionally, perhaps to a very low figure. All ye who have to make every penny count, postpone your trip until the time that the railroads will see fit to grant cheap excursion rates. During September and October, I think, will be a very good time for the farmer to visit the fair. At that time the products of the present season, in fruits and vegetables, and grains, etc., will be on exhibition. But you must go prepared to come into big crowds, take such accommodations as you may find, and undergo some inconveniences in the bargain.

How much will a trip cost, besides the railroad fare? That depends. One can spend a good deal of money. It is the easiest thing in the world, if you have money enough, to spend two or three dollars for a dinner at the restaurant, and a dollar or so a day for ice-cream soda, five or ten dollars for the various sights and side shows of the "Midway Plaisance," or a whole pocketful of money for trinkets, souvenirs, oriental jewelry, etc., in the Turkish, Egyptian, Japanese or Chinese bazaars.

On the other hand, you can get along with very little money. Prices in the city of Chicago are not materially different, even now, from those you find in other large cities. You can go to a five-dollar-a-day hotel, or you can find fairly good board and lodging for one dollar a day. You can get a lunch for one dollar, or for twenty cents, according to the places you select. Prices on the fair grounds are naturally a little higher. The first thing you want to do is to find and engage lodgings somewhere near the local railroads, elevated roads or street-cars which run between the city and Jackson park. This leaves you free to take your meals "on the European plan" wherever you happen to be. It will be advisable to take breakfast in one of the numerous restaurants, paying for the same twenty, twenty-five or fifty cents, as the case may be. You may buy a lunch and take it along with you, depending on the lunch-counters on the grounds to furnish you a cup of coffee or tea at ten cents, or chocolate at fifteen cents, or you may drink cold, filtered water, which the grounds furnish you free of charge. Stay on the grounds until evening, and then take a hearty supper in the city. If you prefer, you may get a cup of coffee and a sandwich at the fair grounds for twenty cents, or a dinner or supper, consisting of such things as you select from the bill of fare, for any amount from thirty-five or forty cents upwards.

The victuals served here are reasonably good, and will cost you about as much as you would have to pay in any good railroad restaurant. A most charming, really dazzling sight is the white city when bathed in the sea of thousands of electric lights, as it appears on two or three evenings per week. Add to this a display of Payne's fireworks—the air thick with floating fireballs and fiery serpents, as I saw it on the first night of the visit to the fair of H. R. H. Eulalia, the infanta of Spain; the effect is wonderful in the highest degree. You must try to see the grounds on such occasions. Eulalia, by the way, is a woman like many other women. She represents a king and a friendly nation. During her visit at the fair grounds she proved a really stronger attraction than the fair itself. Thousands of people ran their legs off, and stood waiting and stretching their necks, just to get a glimpse of "her royal highness" and her princely escort. I doubt in my mind whether this woman has received a very favorable opinion of the "American split of independence." Hand-kissing may possibly be permissible under some circumstances. Ordinarily, this as well as knee-bending and similar ways of expressing homage to "royalty" are contemptible in a sovereign citizen of the United States. It seems that Mrs. Eulalia has at last become disgusted with "society" as she found it in Chicago, and courteously declined further attention from that quarter. It serves them right. I do not believe that the good sense of the average intelligent, independent American farmer would allow him to thus cast his dignity before the feet of a foreign

prince or princess. After her Chicago trip she came to Niagara Falls, and remained several days. I have not heard that a single farmer in this vicinity made a trip to the falls, so close by, in order to get a glimpse at the now famous infanta.

The "Midway Plaisance" is highly interesting. Even if you should have no money to spare for the sideshows, many of which have a strong flavor of humbuggery, you will spend some time on this extensive annex. Here you can learn more about "what the other half of the world is doing" in a day, than by any other means in a month. Stroll through the bazaars. You are not compelled to buy a thing; but it is of interest to see the foreign wares, and the foreign people in their native costumes, and hear them converse in their native tongues. You find the Egyptian, the Turk, the Bedouin Arab, the South Sea Islander, the Esquimeaux, the Japanese, the Chinese, besides representatives of every civilized nation on the globe. You will see them "at home," and observe how they eat and sleep and act. In short, this part of the Midway Plaisance is one of the most educational features of the fair.

More about the exhibit in my next.

T. GREINER.

### STARTING AN APIARY.

In the midst of general depression of business and sharp competition which is making all profits small, there are many dwellers on farms and in small towns who are looking about for some means by which they may increase their incomes. Besides a man's regular business, he may often attend to other matters, which will prove both a source of profit and pleasure. Attending a garden or an orchard of small fruits is occupation of this kind, which brings pleasure, recreation and profit. Here, also, may be classed bee-keeping, an occupation which has given to many pleasure, to some considerable profit, and to all who have entered into it in an earnest spirit such an insight into the mysteries of insect life as they never before possessed.

Probably but few have any idea of the financial importance of bee-keeping. From reports of the department of agriculture, it is learned that every state and territory in the Union reports bees and more or less honey and wax. California is the banner state in bee-keeping, because of a favorable climate, while New York, Ohio and Tennessee follow next. The annual value of the honey and wax is almost equal to the rice and the hop and the buckwheat crops respectively, and exceeds our cane molasses and both maple syrup and maple sugar. It largely exceeds the aggregate value of all our vegetable fibers excepting cotton.

Any one who is prompt, careful, patient and apt, may keep bees with some hope of profit. If he is a lover of nature, so much the better; yet one can hardly care long for bees without developing a love of nature. It is only a few weeks in spring and summer that a small apiary needs much attention, and a few minutes each day will suffice for a number of colonies.

Bees may be kept on a farm, in a village, or even in a large city. But bees will do much better in some places than in others. As a rule, the best farming districts will be the poorest for bee-keeping. Regions which are largely uncultivated, in which there are hills and mountains, in a state of nature, will generally be the best regions. The reason for this is that in good farming districts all the wild plants which produce honey have been destroyed, while in hilly and mountainous districts these remain.

The beginner, in making preparations for bee-keeping, should first visit an apiary and talk with an experienced bee-keeper. If possible, see him work a day or more with his bees, when more will be learned than by reading twenty volumes without any practical knowledge of the subject. If it is proposed to enter the business for a livelihood, then the whole summer should be spent in the employ of a skilled bee-keeper.

The beginner will not need more than one or two colonies to start with. These will increase as fast as he can learn how to manage and to take care for them. The Italian bees are best for the beginner, because they are of a milder disposition than the common black or German bee. The bees should be in a modern hive with movable frames. The beginner does not want to have anything to do with any other hive. In the autumn bees should be secured for at least one third less than in the spring.

It would be well to have some one familiar with bees to select the colony for the beginner, for there are all degrees of value

in bees as in other articles. If you buy of a dealer, be sure he is a reliable man; but if the beginner must depend upon himself, then let him go to the apiary from which his bees are to be purchased, on a warm day when the bees are in full flight. The hives from which the most bees are flying are the most valuable, for they will contain the largest number of bees. A heavy hive rather than a light one should be selected, and one which cast a swarm the last summer rather than one which did not swarm.

After the bees are purchased they are to be removed home. In warm weather this is best done at night, for then all the bees are in the hive; though if the colony is smoked at intervals of half an hour, most of the bees will be secured, even in the daytime. A piece of wire gauze is tacked over the entrance, the hive is placed on a spring-wagon and carried to its new location. If the weather is at all warm, the whole top of the hive must be removed and the bees covered with gauze, else there is danger of the bees smothering. In the morning before the bees are liberated at their new home, they may be smoked, and a board placed so as to shade the entrance to the hive. This will cause them to mark the new location so that there will be no loss. On the wagon the hives should be placed with the frames running parallel with the length of the wagon; in this way they carry best.

The hives should be in a place warm in winter and not too hot in summer. On dry, never on damp soil; they should be away from foot passengers, cattle and sweaty horses, and where the morning sun will strike the hives very early, so that the bees may get early to work. In villages and towns they may be placed anywhere in the back lot, in the garret, in a shed, or even on the roof. They should be near the house, that issuing swarms may be readily seen, and that they may receive attention at odd minutes. Shade is not necessary, though in very warm weather it is grateful to the bees. If the location is a hot one, shade should be provided, and this is conveniently secured by planting a grape-vine near each hive and training it to a neat trellis, or a few boards may be laid on the hive. The hives should not be located where they will be subject to driving winds, as these chill the hives and cause the loss of many bees about to enter them.

In arranging the apiary the hives should be placed near the ground, with a board sloping from the alighting-board to the ground. This enables heavy-laden bees to enter the hives much better than if they were elevated. A half brick under each corner of the hive gives sufficient elevation. The hives should not be nearer each other than five or six feet, and an irregular order is better than regular rows.

The ground about the hives should be kept entirely free from weeds and high grass. It is nicest to have the ground covered with sawdust, spent tan-bark or plain sand. The hives should slant slightly to the front, to enable the bees to cleanse them easily, but should be level from side to side. Everything in the apiary should present a neat and attractive appearance. The hives should be painted; white or some very light color is the best, because it will be coolest.

To open a hive, puff a little smoke in at the entrance, wait five minutes, puff some more in, and at once open the hive and proceed to examine it. If the bees are unruly, give them more smoke and wait awhile; in time the smoke will subdue them. A little chloroform on a sponge placed in the smoker will answer in place of the smoke.

Remember never to strike at a bee. Do not be jerky in any of your movements. Don't breathe on them. Don't crush any of them. Don't squeeze any of them. Don't stand in their way when they are busy. This provokes them. If stung on the hand, suck the part until all the odor disappears.

Always have hives in readiness for swarms, one of which you may expect from every good colony. When the bees begin to build new combs at the top of the frames, you should place on the hives the boxes to receive the surplus honey. Cover these boxes well, so that the heat will not escape from the hive, else the bees will not enter the boxes. Don't be anxious to have the bees swarm. If we can only keep our hives crowded with bees we may expect some honey.

Keep a strict account of the bees, and do not buy appliances except as they enable you to do so from their surplus. This will cause you to go slow until you know your real needs. WILLIVER H. LEMAN.

THE INDIAN AS A FARMER.

Regarding the Indian as a farmer from the standpoint of vantage occupied by his thrifty white neighbor, he does not always shine with an undimmed luster, by any means; but taking him as a man who while still a savage and with all the instincts of a wild, free life, untrammelled by an agricultural acquaintance, he is really not so bad a farmer after all.

The government, doing all it can to encourage its copper-colored wards in their work, tending to make them self-supporting, has issued immense quantities of horses, oxen, plows and mowers, and in fact all farm implements, and strives in every way to get them to put in their crops. Of course, seed of all kinds is furnished in abundance.

To show the Indian's improvement in this respect, take the case of the writer's friend, One Feather. Four years ago One Feather drifted from Canada, where he had been an involuntary exile for some time, owing to the fact that he, together with many others of Sitting Bull's people, had fled there for refuge from the troops after the Custer fight, and had been afraid, for very good and sufficient reasons, to cross the line into this country until Gen. Miles' troops had all been withdrawn, and there was a safe road opened to them to return to their families, from whom many of them had been separated. So, when One Feather made his appearance with a wife and four little ones, ragged, starved and generally demoralized, with his face covered with paint, his hair down on his shoulders and an unspeakable expression of ferocity and wildness about him, he was about as unpromising a specimen as could very well have been found. He hung around the agency for days, and got one of the employees interested in him, and through his efforts was appointed a policeman and given a blue uniform and revolver, and as he already had a gun, his equipment was complete.

One Feather, as soon as his appointment on the force was an assured fact, went very coolly to the water-tank in the room where the agent and others were sitting, and proceeded to wash the paint off his face. This done, he had his hair cut, donned his uniform, and the process of reconstruction was begun.

The next thing was to pick out a site for his house. This he did, and soon he had cut logs, and as the agent had issued him horses and a wagon and all necessary household goods, he soon had a very comfortable cabin up, and was happily settled.

One Feather's pay as a policeman was five dollars a month. Not very much, one would think; but when we take into consideration all the other things that went with it, it was enough for his simple wants. He now had cattle issued to him, as he had put up corrals, stables and had plenty of hay. One thing the Dakota farmer can always count on, and that is good hay and plenty of it, so One Feather was doing famously. He was out with his plow at spare times, and soon had some twenty acres in oats and wheat. The increase from his stock he sold to the government, which was issued again to him as beef, so it depended on himself to keep well going, now he had started.

In addition to what he could raise by farming, the government issued him rations every two weeks, which consisted of flour, coffee, sugar, beef or bacon, beans, corn and baking-powder, so that he soon was able to sell many cattle back to the government at about thirty dollars a head, which had cost him nothing but a little care, so all he did was to carefully look out for what was given him, and he was far better off than the average white farmer in Dakota with his heavily-mortgaged farm and struggles to maintain a living against the hot winds that had a fashion of coming along some time in July and burning everything up, or a sharp freeze in August that would nip in the bud his later efforts. Against these disadvantages the white farmer had to struggle alone and unaided, and often the fruit of a whole year's work would be spoiled in a day by the hot, suffocating blasts that sweep over these wide prairies, and from which there is no protection. All this One Feather did not care two straws about. If the crop was a failure, he had more seed given him to start in anew, and as the government fed him anyhow, you can see what a very independent farmer he is.

All the little gullies near his house are filled with a most luxuriant growth of hay, and this One Feather gathers in with his fine new mowing-machine, and having

loaded it on his hay-rack and stacked it in his corral for use during the rigors of a Dakota winter, he feels that he has done well.

There is a great deal of hauling of government freight to be done on the reservation, and One Feather gets his share of that at about forty-five cents per hundred pounds, so that by a little exertion he could earn as much more ready money freighting as he could by raising stock, all of which, under a paternal government like ours, is much more like sport than work, and well paid at that.

One Feather dropped in to see me the other day, resplendent in a pair of brand new sergoant's chevrons and stripes. He had just been promoted from corporal, and looked the pride and satisfaction which he felt at this new evidence of the government's faith and trust in him. After the congratulations were over and he had helped himself to a cigarette, I asked about his crops. He said he had a splendid field of oats, and he expected to thresh about five hundred bushels. Then he went on to tell me about his little garden of beets, squashes, turnips and watermelons, and how his children enjoyed working in the garden. He had six good horses and some eight or ten head of cattle. He was going to sell two of the steers to the agent in the fall, and would get about eighty dollars for them.

Here was this man, little better than a tramp three short years ago, well along in everything and was going ahead as fast as any white man could.

While One Feather was talking he had placed his rifle in the corner, as the police carry their arms with them wherever they go, and picking it up, I saw it was a cavalry carbine, such as our troops are armed with. "Where did you get this," was my question.

One Feather laughed a little sheepishly, and said:

"Oh, I got that on the field of the Custer fight."

My interest was excited.

"Well, One Feather," said I, "did you have this in the Sitting Bull fight two years ago?"

"Yes," he responded, "I did, and killed three of the hostiles there at the same time that the old chief met his death."

Here was a history. It was with great curiosity that I examined the old, battered gun. What an experience it had had! Some luckless trooper of the 7th cavalry who had been with the fated Custer had left his bones and gun together on the field, and One Feather had got the gun, and now had that same weapon and was carrying it under the orders of the government, and had killed three of Sitting Bull's most trusted warriors with this historical gun, which had taken a most unique way of avenging its original soldier owner's death by turning against Sitting Bull, in the hands of one of his own people. CANCEGA.

MILK RATIONS.

One of the first things to be ascertained in regard to producing milk is the food that will produce the most milk at the least expense. This question I have tried to solve, not by scientific reasoning, but by actual experience. For the last fifty years I have been connected with the dairying business. As the milk in this part of New York state is either made into cheese or shipped to New York City, we have been anxious to learn what kind of food will produce the greatest quantity of milk, which will still be of suitable quality for the market.

As the result of many experiments, I have found that I can get the most milk from corn-meal and still have it of the quality required; but as some will not agree with me in regard to this, I will relate a little of my experience in this line and let readers draw their own conclusions.

After the flush of feed is over in June or the first of July, as the grass becomes dry the cows fall off in milk. In order to keep up the quantity of milk, so that they may do well in the fall, for which time we provide after-feed and sowed corn, it is necessary to feed them a little grain for a short time, until the feed on the farm has a chance to mature.

My feed for that time has been a little corn-meal—about one quart after the morning milking, before they are let out to pasture. This will keep up the milk. Last summer while thus feeding corn-meal I went to the feed store for more, but found that none could be procured. They wished me to try oil-meal for ten days, as they thought it would bring better results. I

took some, paying for it the same as the corn would have cost. I had received that day from twenty-two cows 631 pounds of milk. I fed the same quantity of the oil-meal and at the end of ten days had 463 pounds. They had shrunk in the ten days 168 pounds. I then secured some corn-meal and fed the same amount. The cows in ten days gained to 570 pounds, and continued to give about that quantity. I gained back 107 pounds of the decrease in milk.

Cotton-seed meal is on the market as a wonderful milk-producing food. I purchased some, but could not get the cows to eat it well. I then thought I would try it on a horse, so fed one the same amount that I had been feeding of corn-meal. He ate it well, but in a few days I perceived he was eating his bedding, acted as if he was hungry and seemed to grow poor. I stopped feeding it to him.

There was a farmers' institute here a few days after that. I asked why my horse had acted as he did, and was told that cotton-seed meal would produce that result every time, as it lacked something that the animal needed. Then the question arose in my mind as to whether it was profitable for me to buy such food for my animals. I had also to feed them something else to keep them alive, when on the same amount expended in corn-meal they thrive very nicely.

Last fall I wished to test wheat bran, and as my barn is heated with a hot-air furnace and the water is warmed, I let the cows go for twenty-six days with nothing but hay three times a day. After six days I commenced to weigh the milk. The first ten days they gave 2,538 pounds and the next ten days 2,459 pounds; there had been a loss of 79 pounds in ten days.

But as I wanted to milk until March I must stop this decrease, so I got 500 pounds of wheat bran, and giving 50 pounds per day the cows gave in the next ten days 2,202 pounds. During those ten days the milk had fallen off 257 pounds. I then got the same amount of corn-meal, but as that cost most per hundred I would, at the same expense, give them but 40 pounds per day. For the first four days they gave about the same amount of milk; then beginning to gain, they gave in ten days 2,275 pounds, an increase of 73 pounds. I then continued to feed the 40 pounds of corn-meal soaked for twenty-four hours in water. The first ten days they gave 2,157 pounds and the next ten days 2,014 pounds. Thus in thirty days from the time I had fed the bran they had shrunk but 188 pounds.

But I wished to be certain of my conclusion, so tested the bran farther by taking one half as much meal and putting with it enough bran to make it cost the same as the 40 pounds of meal had. This I fed for ten days, and the cows gave 1,718 pounds, a decrease of 296 pounds. Thinking I had satisfied myself as to the profit derived from feeding other things, I returned to corn-meal.

Some say there is no milk in corn-meal, as it produces too much fat. Now, it is a well-known fact among dairymen that a cow that drops her calf and is fat, will give more milk with less grain than one that is poor. If this fat will return to the blood and be converted into milk, why will not food that makes fat make milk?

With a view to helping the farmers, there is being introduced a so-called milk-producing food, made from corn after the sugar and starch are taken out. This may be good, but why is the corn any better for having a part of its substance taken away? If such is the case, nature must make a great mistake in producing corn. I have not written thinking to convince any one, but hope that the farmers who read this paper will investigate the matter and see if I am not correct in saying that I can produce the most milk at the least expense from corn-meal. N. BROWN.

A RICH FARMING COUNTRY.

The United States covers a large section of country, some of which has been under cultivation for so long a time that its native fertility has been largely reduced, whereby the requirements of crops are not as completely and fully satisfied. But there are other sections that continued in a wild and uncultivated state until a comparatively recent period, and are rich in those elements of fertility so necessary for the production of crops.

Such a section of country is found north of the Missouri river and west of the Mississippi, and is included in the Dakotas, a part of Minnesota, and extending beyond the boundaries of the United States into the British province of Manitoba. The

more we see of the surface and capabilities of our country, the more we become convinced that certain sections are adapted to special agricultural purposes. There are sections where the soil, climate and all other conditions expressly declare, so far as we can express it, an adaptation to the cultivation of corn; another to the cultivation of potatoes, and yet this evidence is often disregarded and mixed crops are grown, because of the force of habit.

The section of country alluded to above is one especially adapted, because of conditions, to the production of wheat. Through the Dakotas, Minnesota and Manitoba and portions of Assiniboine the country is level and comparatively smooth, with a soil that appears to possess a high degree of fertility; it is free from stones, and when once broken up is easily cultivated. It is a dark or black loam and of great depth, and that it really is fertile is proven by the immense crops that are harvested. This condition extends for hundreds of miles; it constitutes what is so well known as the Red river country, and has been brought under cultivation within the past few years.

Here seems to be a combination of conditions favorable to wheat production; a very fertile soil; one that is free from all obstacles to the use of machinery for the preparation of the ground, the sowing of the seed or the harvest of the grain; a country that is level, and so, susceptible to tillage by the best possible means, and also that will admit of harvesting, etc., by the most approved machinery.

Where a soil is all that can be desired, the profit in any case of cultivated crops comes upon its being carried on upon a magnificent scale, and here is an instance when wheat may be sown by the thousand acres as well as in ten-acre patches. But through this section as far as the eye could reach in every direction, it is wheat, wheat, wheat; one would suppose surface enough to produce more than the entire world could consume, but climatic conditions arise that prevent the best success.

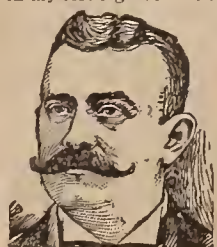
While it is a grand sight to view the extensive section and think of the great possibilities that exist under favorable conditions, it is unpleasant to contemplate the scene under adverse conditions, such as existed during our visit to the country at an unfavorable season of the year. The Red river country was not exempt from the severity of our past winter and its attendant cold and wet spring. And when we were passing through it about the last week in April, the surface was so covered with water that but little could be done toward getting in a crop, which is mostly of the spring variety. Large sections were plowed the preceding fall, but were so covered with water as to prevent any kind of work being done; other sections were even less fortunate, being unplowed and yet covered with water.

The wheat growers were feeling considerable uneasiness, for the reason that as a rule the crop is usually in by the first week in April. We learned, however, that excellent crops had been grown when the seeding was delayed until the first week in May, so while somewhat discouraged at the outlook, they still continued hopeful. It was said that with fair weather the moisture would dry out of the soil very rapidly. While we could not approve of the neglect of machinery, as we noticed through the country, the great number of reapers that were lying about were evidence of the immense scale upon which the wheat culture and harvest are carried on. The presence of immense grain elevators at all the railroad stations was another evidence of the quantities of wheat that are handled, and so must be transported. Verily, the possibilities of this country are immense.

WM. H. YEOMANS.

Hood's Sarsaparilla Cures

"My trouble began with inflammatory rheumatism in my left leg above the knee. As a result of poulticing a running sore formed.



Mr. Hauer.

and I was in terrible condition. In about six months my physician removed a piece of bone. I all the time suffering great pain. I bought half a dozen bottles of Hood's Sarsaparilla, and soon after I began taking it the sore stopped discharging and healed up. I am so thankful to

Hood's Sarsaparilla for my perfect cure." CHARLES W. HAUER, 23 W. Patrick Street, Frederick, Md.

HOOD'S PILLS Cure Sick Headache.

Our Farm.

GARDEN AND FIELD NOTES.

FIGHTING FOR EGG-PLANT.—In my estimation, the egg-plant stands at the head as an interesting crop. Their large leaves, strong growth and mammoth purple fruit give them quite a tropical aspect, and then the fruit makes a most palatable dish. But in order to get it we have to fight for it. Potato-bugs are extremely fond of the leaves, and if they are at all abundant, as they seem to be this season, even large plants will soon be eaten down to the bare stalk, notwithstanding all poisonous applications you may make. I have given the patch in charge of my little boy, six years old. He takes a tin can, puts in a tablespoonful of kerosene and a little water, and thus provided hunts the patch over once or twice a day, gathering up all the bugs he can find on the egg-plants and on the ground under them, and dropping them in his little can. After a week's fight in this manner the bugs seem to be giving up, or at least they have found food in the potato-patches near, and any egg-plants well covered with a mixture of tobacco dust, bone-meal and slug-shot (the same that I use for my melon and squash vines) seem to be safe.

EARLY CABBAGE AND CAULIFLOWER.—Early Jersey Wakefield still leads as an early cabbage, but I find that my plants started in the greenhouse in March, pricked out into cold-frame early in April and planted out in open ground the same month, or as soon as the soil was fit for working, are really ahead of the plants that were wintered over in cold-frame and set in open ground several days in advance of the others. In regard to the maggot, I think we may be well able to save our cabbages, etc., by surrounding the stem of each plant with a little piece of tarred paper; but if it were not for the high price of cauliflower seed, I think the easiest way would be to plant a few cauliflower-plants for bait, and then kill the maggots by treating the cauliflower-plants, or else by pulling the wilting plants up and destroying them, roots, maggots and all. This destroys many of the enemies and prevents the mischief they would make in future. I put a quantity of stone lime, some tobacco dust, a little nitrate of soda and of muriate of potash into a barrel and fill it with water. This liquid mixture is poured down upon the root of each plant, and it will kill every maggot that it touches, at the same time acting as a powerful stimulant. If the plant is not too far gone, this treatment will save it. After the stalk is once all eaten through, and nearly rotted off besides, no treatment will save it, but you can at least destroy the maggots.

VEGETABLES IN SEASON.—The great aim of Americans in gardening is to have vegetables in season and out of season. The big prices are generally paid for vegetables out of season. But, after all, each fruit and vegetable is best and tastes best right at its natural time of ripening. Who, for instance, cares much for asparagus after peas come in, or for strawberries in raspberry and blackberry time? Tomatoes give us the most enjoyment in July, August and September, perhaps October. After that they seem to lose that taste and flavor which made them so desirable at their proper season. I had a similar experience this spring with lettuce. We had it, greenhouse grown, during April and May. Usually I am a great lettuce eater, but this fine, glass-grown lettuce did not seem to touch the right spot. I ate only sparingly of it, and soon grew tired of it altogether. Then came the lettuce from open ground. It stands rather closely as yet in the rows. We cut out plants where crowding, remove the coarse outer leaves and just prepare the tender hearts for the table. This makes an enjoyable dish indeed, and I am taking to my lettuce again as a duck does to water. Every member of my family also comments on the superior quality of this lettuce over that which we had from the greenhouse.

EARLY PEAS.—Early peas are an easy crop to grow. At this writing (June 20th) we have plenty to use and to spare for sale, although the season is unusually late. But I do not know of a single one of my neighbors who has any fit to pick. Why is this? I cannot tell unless people do not generally plant these first early sorts, the Alaska, Rural New-Yorker, Dan O'Rourke, etc. Of course, if you plant Marrowfat peas for the table, and none other, you must be

prepared to go without peas in the early part of the season, when peas are a luxury and taste best, and also without the peas of real choice quality, such as the early, medium and later wrinkled sorts. You may be sure there is a vast difference between peas as to quality, even among wrinkled varieties. I want the best only.

EVAPORATED VEGETABLES.—I would like to hear from any of our friends who have tried their hand on the evaporation of vegetables. I am told that sweet potatoes can be made into a dried product that will give as palatable dishes as the fresh potato. If that is true, we have in the evaporating process the solution of the problem how to keep sweet potatoes in best condition the year around. The evaporation of sweet corn is an older process, and gives good results, although perhaps not as good as the canning process does. But canning corn is not a safe operation in the hands of the small producer, while everybody can dry his sweet corn. Then there is asparagus and peas and tomatoes. There can be no doubt that all these vegetables can be preserved in good order by means of the evaporator, large or small, and as things go, we must have these vegetables out of season, even if not quite as good as they may be when fresh from the field. The question now is how best to proceed, and possibly one or the other of the FARM AND FIRESIDE family can give us some of his observations and tell us how best to manage these products for and in evaporating. JOSEPH.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

WHAT MANURE SHALL I USE FOR MY FRUIT CROPS?

This is a question that every fruit grower has to answer each season, and the proper solution of this problem will depend upon the circumstances under which the grower may be placed.

In the older sections of the country it is generally best to depend upon the home supply of manure, supplemented by commercial manures. In the newer sections of the country, where any manure at all is needed, it can generally be had cheapest in the form of stable manure, and best results will follow its use.

The thought that apples need one kind of fertilizer, pears another and strawberries another, each its own special kind, and that it is practicable to give each its special elements and so improve its productiveness, is a source of much error, and leads to the purchase of many tons of expensive fertilizers each year which could be dispensed with. Practically all our fruits need about the same elements in the same proportion to develop them to their utmost, but it may be supplied to some in a different way than to others.

In apple orchards, even in the eastern states, it is seldom best to apply nitrogenous manures, since if the potash and phosphoric acid is supplied to the soil, the nitrogen may be added more economically by plowing in a clover crop, which has the power of taking nitrogen from the air, and consequently leaves a great deal in the ground from the decay of its roots and stems. The same may be said, to a limited extent, of strawberry beds, since by growing a crop of clover the land is brought into good condition for this crop; only here comes in the objection that there is liable to be many grubworms in clover sod, and they may injure the strawberry-plants, which are most safely planted on land that has not been in sod for two years. On raspberries and blackberries it is not practicable to plow in a clover crop; and here we find that stable manure is one of the best fertilizers, for the land needs humus as well as plant-food.

One large Wisconsin grower of these fruits mulches them every year with clover cut in the blossom, which is so rotten by the following spring that he cultivates it into the soil. In this way he secures a good mulch and also a good manure for his bushes and berries.

For pears, again stable manure is excellent, although it can be greatly supplemented by plowing in a clover crop. For peaches, stable manures are not so much in favor, as they are supposed to induce a late fall growth in this tree, and wood ashes is a favorite fertilizer here, but fertilizers which, like it, contain but very little nitrogen, but large amounts of phosphoric acid and potash, should be used if any are at all necessary.

Of course, a piece of land may be so run down that it will require large amounts of

stable manure to put it into good shape at once, and in such cases would be most practicable, in many instances, to use some commercial fertilizers and stable manure in connection with clover, to bring it up again.

In using fertilizers, it should be borne in mind that we have no means of telling exactly what the soils lack; that an analysis of the soil is often misleading; that while nitrogen enters largely into all plants, it especially stimulates the growth of stem and foliage; that potash and phosphoric acid rather produce early maturity of the growth, and nitrogen a late growth; that clover, peas, beans, vetches, alfalfa and such nearly allied (leguminous) crops are nitrogen collectors and improve the soil they grow on; and that other crops take up more nitrogen from the soil than they leave in it, and consequently are more exhaustive to it; that all elements that enter into plant growth must be in the soil to produce good crops, and if any one element is lacking, the amount of it determines the size of the crop that can be grown.

The material that can be most economically used for manure in one locality may be out of the question in another. One man may find it cheapest for him to use nitrogen in the form of glue waste; another in horn shavings or wool waste, tankage, sulphate of ammonia or in the use of Chili saltpeter. The same can be said of phosphoric acid and potash. Each grower must be governed by his own good judgment. In most of the western states the returns from the use of potash in the soil are doubtful, while in the eastern states a fertilizer would not be complete without it. It is necessary, then, in order to use manures most economically, to study the crop in its relation to the soil and to the sources of manure most available.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Spraying Fruits—Crossing Fruits.—R. E. L., Fayette county, Pa. For notes on spraying fruits, see article in FARM AND FIRESIDE of April 15th, by Professor Maynard. Any ordinary force-pump will do very well for spraying, but it is very important to have a good nozzle. I use a Nixon nozzle, and it gives me good satisfaction for most purposes for which it is recommended. For orchard work the pump should be mounted in a tub or barrel and the whole carried in a wagon. It is now too late to spray to kill codling-moth or to prevent scab on apples, so I will not answer your questions at this time.—The question about crossing grapes also comes too late, as



FIG. 1.



FIG. 2.

the work must be done when the blossoms are just ready to open; but as it is a matter of very general interest, I give some notes on the general subject of crossing. Figures numbered 1 and 2 show the parts of the flower of the grape. In Fig. 2 the stigma is indicated by A and the five anthers by B. For illustrative purposes, suppose it was desired to cross the Concord and the Worden, using the Concord as the mother plant. A cluster of flowers of the Concord would be selected, and each flower opened just before it would do so naturally, and the anthers all cut or pulled off, using a tiny pair of scissors or pincers for this purpose. A paper or cotton bag should now be put over the whole cluster, to keep out pollen which might be carried to it by insects. In about twelve hours the stigmas will be ready for the pollen; the relation between these was explained in FARM AND FIRESIDE of May 15th. The pollen from the Worden may be gathered as soon as the flowers are opened, collecting the anthers in a small bottle. The anthers contain the pollen, which they shed as a little yellow dust as soon as they get quite dry. When ready, the bag over the Concord cluster would be removed and the stigmas dusted with the pollen from the Worden; the bag replaced at once, but in twenty-four hours it should be taken off again and a bag of mosquito-netting put on in its place, to protect the fruit from insects, etc., until it ripens, when the seed is saved and planted. The resulting plants are crosses between the Concord and Worden. Quite often, instead of gathering the anthers as described, a cluster of flowers of the Worden, having plenty of loose pollen, is taken in the hand and the pollen from it transferred to the stigmas of the Concord. A little study of the blossoms will make this matter plain to any one interested in the subject. However, most of the varieties of the grapes now popular have been produced as chance seedlings, and few or none of them by hand-crossing, although this is the plan that promises the best results. As it is too late this season to study this in connection with grapes, you had better commence learning about the subject by studying the blossoms of the squash, cucumber and pumpkin, which are treated very much alike when they are crossed. In these plants you will find that instead of having the pollen and stigmas in each flower, there are two kinds of flowers on each plant; one, having stigmas, called a pistillate flower, is always at the end of a small squash, cucumber or pumpkin, and is the kind that produces the fruit. The other never produces fruit, but pollen only, which is rather sticky in these plants, and is often referred to as "false flowers." If we wanted to cross the Hubbard and Marblehead squashes, using the Marblehead as the mother plant, we would select a flower of the Marblehead having a small squash as part of it, and tie a string around the part of the flower that opens so it could not open naturally. When the stigma in it is sticky, select a "false blossom," one having lots of pollen, from the Hubbard squash, and with a small hair-brush dust the pollen from it over the stigma of the Marblehead blossom, and the seeds from the squash

thus formed will produce squash which will be a cross between the two kinds. You had also better get Gray's "How Plants Grow," and study up about the parts of the flowers. There is no work that I can refer you to on the crossing of fruits, but by the use of this little book, and careful observation of the flowers of plants themselves and occasional questions, you will soon come to have a considerable knowledge of the subject.

Fruit-trees in Sod and Cultivated Ground—Budding—Seedlings—Best Plums.—L. M. S., Harrison, Ohio, writes: "I have a place which I want to clear of timber next winter, and plant in peaches, pears, quinces, plums and grapes. It is the top of a high hill. There are about two acres of clay soil, protected on the north and west sides by timber. I live at the base of the hill, where there is clay soil also, in full view of the north. What varieties of fruit would be best adapted around the house in sod, and also in cultivated ground?—Can our native grapes be grafted in roots of wild grapes? The small black and blue grapes are very plentiful on the proposed orchard site.—Can stone-fruit be budded into the black willow?—What would be the best way to start plum seeds to growing the same year they are planted?—Name the best varieties of plums for this section."

REPLY:—I do not know of a single fruit that it would pay to grow in a sod, unless it was so heavily mulched as to kill out the sod around the trees. If, however, they are heavily mulched, most of the tree fruits may be planted in a sod quite successfully, although I do not like the plan where the soil can be cultivated.—Our native grapes of both species, the small kind (Vitis riparia) and the large kind (Vitis Labrusca), may be grafted with our cultivated kinds, but I don't very much if it will pay you to do this, as the wild vine would not come in rows so that you could cultivate with a horse; and if moved, they are not so good as two-year-old vines. You had probably better clear off all the timber, bushes and vines and thoroughly fit the land before setting out vines, and then set good two-year-old, thrifty vines of the common, productive kinds.—No; the stone-fruits will only grow on stone-fruits, and there are exceptions even to this. It is best for general use to put peach on peach and plum on plum.—The seeds of the pines should be saved as they are gathered, and not allowed to get dry before planting. When all are collected, thoroughly prepare rich land and sow them in it in drills three feet apart, putting about ten seeds to the foot, and then lightly mulch them to keep the soil from baking. If treated in this way they will almost invariably start the following spring. If allowed to dry, they may lie two years without starting. They never start the fall they are sowed. Sometimes they are piled up in layers of sand, to remain until spring, and then sowed, but I use the way first mentioned.—Bradshaw, Lombard, Wild Goose, Quackenboss and Geull.

Strawberry Culture—Remedy for Striped Bugs.—C. D., Hull, writes: "What should I do with my strawberry bed to get a third crop? How many paying crops of berries ought a bed to raise without being renewed?—What is a sure remedy for the little striped bugs on garden vines? Everybody has a sure remedy, but the bugs don't seem to find it out."

REPLY:—As a rule it is not a good plan to take more than two crops from a strawberry bed, and yet I do it occasionally when the bed is in good shape after the gathering of the second crop. The plan I adopt is as follows: As soon as may be the bed is closely mowed and all the weeds and strawberry leaves are burned. A plow is then run on each side of a matted row and all but about one foot in width of it is turned under. The furrows thus made are filled with fine, rotted manure and the cultivator set going. The plants remaining are then thinned out with a hoe, and special pains taken to cut out all weeds and old or weak plants. This leaves the old bed clean, with plenty of manure close by, in which the old plants can make new roots. The plants soon send up new leaves, which are much healthier than they would be were the old foliage allowed to remain, and if we have an ordinary season, an abundance of runners will be sent, and by winter the old bed will look nearly as vigorous as a new one. In this way a bed may often be made to produce good crops for three years.—The simplest remedy is to prevent their coming near the vines by covering the latter with mosquito-netting screens. But Paris green and water, about one half the strength it is used for potato-bugs, will kill them. I use on about two acres of squash and cucumbers clear soil or air-slaked lime, with which I keep the plants dusted all the time until they are well started, when they care for themselves.

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**Our Farm.**

**THE WORLD'S FAIR DAIRY TEST.**

**T**HE most thorough and rigid dairy test the world ever knew is now being made at the Columbian exposition. It has long been the desire of farmers that the different dairy breeds of cattle should be subjected to just such a test as we are now having, in order to learn the true merits of the different breeds of dairy cows.

It has caused much pain to the average farmer to know that he could not secure a herd of dairy cows of any breed that would average more than one to two pounds of honest, commercial butter, made from the common farm keep of dairy cows. To hear of breeder experts securing from three to five pounds a day right along, made the farmer very sick. If he undertook in some way to get one or more of these high-record cows and then brought them down to his regular farm feed, no doubt he would find better cows already in his herd, to which he had never paid proper respect or care, never suspecting their many good qualities were entitled to more favorable consideration.

It must be borne in mind many of these United States have been ransacked and scoured most thoroughly to select out only twenty-five phenomenal cows of each breed for this great test, cows that had won the premium ribbons many times, and that had great pedigrees and names. I think I never saw seventy-five as good cows together as these. All of them were in good flesh, smooth and handsome, large size for their different breeds, and nearly all of them in fresh milk when the test began. They have large udders, and look like perfect reservoirs for milk. They are fed as much grain feed every day as their superintendents dare feed. In fact, every old farmer will know as soon as he looks at them that they are crammed with feed and water.

And with all this feed, care and perfect work, not a single one of them averages two pounds of butter per day. The cows are all dairy queens, and look perfectly honest, and are docile and quiet, not a fraction near as nervous over the test as their owners are, because they don't pan out with a vapor record. It is too early to pass judgment on them, and it is not certain that the cows that give the most milk, make the most butter or cheese, will win the victory, because the conditions of the test require the greatest amount of product and the best quality; and also, any increase in pounds of flesh they may make during the test upon the least cost of feed.

They all feed as they like, and no two of them feed the same amount or same proportion of hay, fresh clover, grass or ground feed, and although the board of managers give them all alike the different kinds of feed at market prices, until the test closes and cost of feed is counted and the judges' decision on quality is given, it is not possible to tell the result. The cows were weighed at commencement, and will be weighed at close, because all these items are prominent factors in determining the profit of the breed and actual worth.

I see no chance for cavil over this test. The cows are milked two or three times a day in the presence of committeemen chosen for the purpose, and the milk is then put into cans under seal, and delivered at once to the dairy building, where it is cooled down. When ready for the separator, it is weighed by Prof. Babcock (the inventor of the Babcock milk-tester) and a record is made of the weight. He saves at the same time a sample of milk taken from the whole for analysis, and after creaming it the skim-milk is tested to see if any butter fat is wasted by the separator, and if so, a record is made of that. The butter is then churned, after the cream has been ripened, and each mess has a churn by itself, so all is done at the same time.

Dr. Babcock then takes a sample of the buttermilk from each, and it is tested to see if any butter fat is wasted by the churn, and if so, a record is made of that fact. When the butter has been worked dry and perfect, the same amount of salt per pound of butter in each, the doctor takes a sample for analysis, but weighs it with the other butter, so nothing need be lost of the full yields of butter, to help bring them up within gunshot of the fairy tales told about in their private tests. The butter machinery used was agreed to by all at commencement, and it does seem to me that nothing could be fairer.

There is one chance for cavil that I can

see, and only one. If one of these breeders possesses greater skill in compounding his food used than the others, so as to win, it is barely possible such a contingency might happen; but probably the test will not be so close as to make it fatal on that account, and the war of breeds still continues.

The ensilage furnished by the board is a miserable failure. I never saw such a large body of rotten feed, that is totally unfit for such use, before. Everything in this department has been done wrong. The silos, to commence with, are two great, mammoth concerns, round ones, and have feeding surface exposed to the air large enough to feed three hundred head of cattle twice a day and keep the ensilage in fair condition. I suspect some one who knew but very little about silos or the requirements of ensilage bossed this whole business. At all events, it is a disgraceful failure, and will do the silo cause more injury than its devotees can wipe out for years to come by voice or pen.

From June 10th to 13th I can take my oath that both of these silos were open at the same time and the ensilage all uncovered in both pits, and great big holes dug into it to find, if possible, some of it fit for cattle feed, thus exposing needlessly surface enough for five or six hundred head of cattle. Of course, it would ruin the whole business in a very short time when only seventy-five cows were to be fed.

The silos should not have been made larger than from fifteen to eighteen feet square, and from twenty-four to thirty feet deep, and several of them in one building. Then only one of them should have been opened at a time, and each feed taken carefully from the top each time, not loosening up the main body of it. The ensilage would then have come out nice, sweet, warm feed for the cows, and would have made some better showing than can now be done.

I am very sorry that this great, unnecessary failure should have occurred, and am greatly surprised to see such a miserable failure left on open exhibition every day. They cannot burn them up or haul this stupendous pile of manure away without exciting serious remark; but they could be closed from view, and thus hide one of the greatest mistakes.

The exhibition of butter and cheese at the dairy building hardly meets the expectations of the public. It is impracticable to attempt to keep butter out in plain view for an exhibition. It gets off in flavor so very soon that it must be kept in refrigerator rooms, especially so until after it has been judged. Many of the states have a dairy exhibit of their own, but the people must take the judges' report, instead of seeing the butter.

A few visitors can be accommodated in the building where the cream-separator is in operation, and can see from a distance this work being done. I notice, however, but few stay any length of time, as there are so many greater attractions they can see much better.

This test is a great educator, and will lessen the gullibility of man. It will require a generation of unbooru farmers to believe similar tales of the breeders we have accepted so long. The other breeds of so-called dairy cattle, that did not have said enough to come to time and enter the test, show most conclusively that they could not face the knowledge of the people that the famous butter records of their pets, if not all bosh, were too full of casein, salt and water, and then weighed on an old, worn-out pair of steelyards.

Farmers can now congratulate themselves that their task of securing nearly a perfect herd of dairy cows is not so difficult as they have heretofore imagined; but they will be very apt to give them better care and feed, and make all the money possible in the business. This is the only exhibition of stock upon the grounds. Carpenters are busy building stock barns and sheds for the exhibition of all kinds of stock, which opens August 1st.

It is to be hoped that railroad fares will be lessened and excursion tickets good for thirty days, at least, be given for one cent a mile, or half fare, same as all roads now give to political conventions and "hoss races."

By going down town to European hotels—the old established houses—it is no great trouble to secure good rooms for from fifty cents to \$1 per day, and meals close by for twenty to twenty-five cents. You can pay twice or three times that amount in hotels close by the grounds, and get no better fare. The crowd is steadily increasing, and the weather is now warm enough

so that tent life in farmer camps is possible; and better for the health and morals of the people, because they stay at home more at nights.

HENRY TALCOTT.

**NOTES FROM THE WORLD'S FAIR.**

In company with Prof. Hunt and a delegation of over twenty students, representing the agricultural and horticultural departments of the state university, I recently spent a week at the Columbian exposition. To say that we were delighted with what we saw is a feeble expression of our satisfaction. The exposition is certainly a grand one, greater in variety and extent, more remarkable in the excellence of a large share of its exhibits, than the world has hitherto seen.

The main buildings which cover and protect the greater part of the exhibits, are better than any one thing they contain, and are marvels of architectural beauty and artistic skill. The design and rapid erection of those fairy wonders is surely a triumph of mechanical ingenuity, and does honor alike to art, industry and man. To see those grand buildings and their contents is an opportunity of a lifetime, and it seems doubtful if another exhibition so extensive, so comprehensive, so instructive, will ever be presented. At all events, those living to-day can hardly expect to see one.

At the time of our visit the exposition had been open for six weeks, but it was not then in complete order. In numerous departments the sound of saw and hammer or the smell of fresh paint saluted the visitor. The anthropological building was not open for inspection, and the experiment station exhibit was still in a state of confusion. By this time, however, the fixtures are all put up and every article duly arranged for exhibition.

Any attempt to describe the exposition as a whole in a brief article must be futile. There is such a wealth of materials, such a universe of inventions and manufactured products, that any effort to describe particular exhibits or point out the merits or defects of special articles, would be out of the question. A few general statements must suffice.

The exhibits are classified under twelve general departments, as follows: (1) Agriculture and forestry, (2) horticulture, (3) live stock, (4) fish and fishing interests, (5) mining and metallurgy, (6) machinery, (7) transportation, (8) manufactures, (9) electricity, (10) fine arts, (11) liberal arts and (12) archaeology. With one or two exceptions there are separate buildings for each one of these general classes, and many sub-divisions have buildings of their own.

Agricultural hall, although by no means the largest, is one of the most imposing buildings on the grounds. Its site is commanding and its architecture is most pleasing. In this building one can see the choicest agricultural products of every state in the Union, together with similar products from other nations. Great Britain, including all her colonies, France, Germany, Austria, Mexico, Denmark, Sweden, Japan, Paraguay, and perhaps several other countries, are well represented. These foreign exhibits, together with the farm products of every portion of the United States, present an interesting and instructive lesson of the agricultural progress of the world. A floor space equal to an area of six acres is packed with every description of agricultural machinery, illustrating not only the best now in use, but showing the progress that has been made from the earliest times.

The experiment station exhibit, which is located in the southwest corner of agricultural hall, will be found equally interesting and instructive. This exhibit is intended to give an idea of the range and scope of the work of a model experiment station, showing the application and relation of the sciences of botany, entomology, chemistry, etc., to the arts of agriculture and horticulture.

In the galleries among the many exhibits that come under the head of agriculture, we found an excellent display of dairy implements, a fine exhibit of wool, another representing everything pertaining to bee-keeping, besides a large number of exhibits representing the various manufactures that come direct from agricultural products.

The different states have vied with each other in representing their respective agricultural resources. The young but enterprising state of Washington shows a typical farm in miniature, in which are represented the farm buildings, fields of grain, plows, binders, threshers, etc., at work.

Iowa makes a fine display of her deep,

fertile soil and fine cereals, Kentucky proudly exhibits her tobacco, Louisiana her sugar-cane, so that one can here study the staple products of each state, and also obtain a good idea of the varied resources of each.

The variety and excellence of the products of the southern and far western states was a matter of no little surprise to those acquainted only with the agriculture of eastern and central United States. When we see the resources here displayed by the different states, one can better understand the remarkable material development of this country.

If the only end attained by this exposition is to exhibit to the world the progress and possibilities of American agriculture, if it sets forth in clearer light the unending variety and untold wealth of our natural resources, and shows how these resources are being skilfully and economically developed, it will not have been in vain. And yet, we should not be too self-complacent; the agricultural resources of other countries are by no means insignificant. The display of the colonial products of Great Britain and France is vast and comprehensive. Canada, as we would naturally expect, has an excellent exhibit. There are rich and diversified products from different parts of Asia, Africa, Australia and the islands of the sea. These contributions in the field of agriculture from foreign countries may look meager beside our own, but we must remember that the value of an exhibit is not always to be gaged by the space it fills or by the impression it makes on the wondering gaze of a thoughtless observer. These foreign products have been shipped thousands of miles; they represent a different soil and climate, and the countries contributing deserve consideration and kind treatment even where the exhibits seem paltry when compared with our own.

I shall have something to say of horticulture in my next.

WILLIAM R. LAZENBY.  
Ohio State University.

**EXTRACTS FROM CORRESPONDENCE.**

FROM ARKANSAS.—Benton county is situated on top of the Ozark mountains, and has a most delightful climate. We have no hot nights here in summer, and one can sleep covered up through August. There is the best of water here—cool, sparkling mountain brooks and rivulets, that gush forth from every hill, and go on a mad rush to the larger streams. We have the banner county of the world for apples. Benton county has taken first premium at every fair where her apples have been sent, east and west. We have good schools and plenty of churches. Land can be had here for \$10 to \$30 per acre, that will return from \$50 to \$100 per acre on strawberries, apples, etc. This is also a good stock country. We have a good grade of stock of all kinds. Our county-seat, Bentonville, has a population of 2,500, two banks, three papers, two roller-mills, fruit evaporators, etc. We have three railroads, four banks, eight papers and many other advantages. Our winters are very mild. J. B. P.  
Avoca, Ark.

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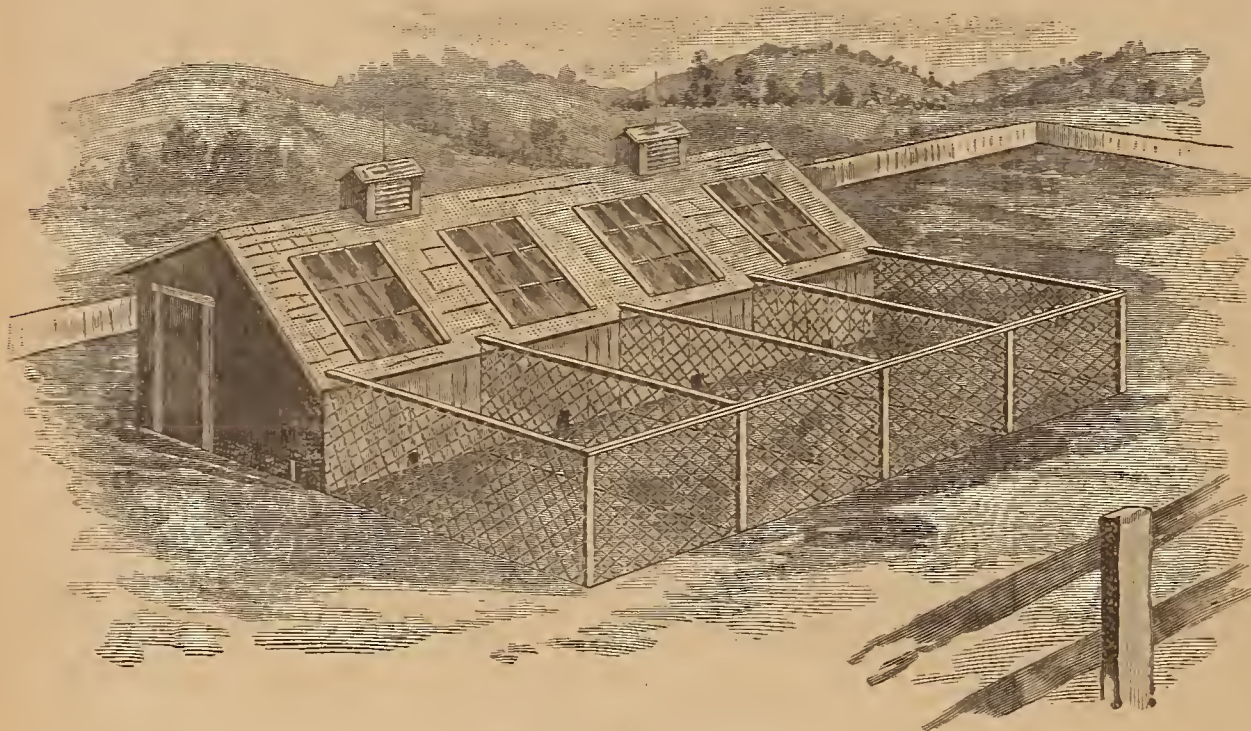
## Our Farm.

## THE POULTRY YARD.

Conducted by P. H. Jacobs, Hamonton, New Jersey.

## DOUBLE-GLASS ROOF HOUSE.

**T**HE poultry-house in this issue combines light, convenience and good ventilation. The drawing shows only four pens, but the house may be of any length desired. There is an alley on the north side, three feet wide. Each pen is 8 by 12 feet, divided from the alley by lath partitions. The house as here shown is 15 by 32 feet on the inside of the wall. It has a door at each end of the passageway. In summer these doors may be of wire, on frame. The partitions between the pens should be of boards, three feet high, and then of wire netting over the boards. The building may be of stone, brick or wood. The windows are of double glass to insure warmth in winter and to prevent radiation of heat. The perches may be placed in the middle of each pen, or next the partition, with dropping-board under the perches, and the nests under the boards, or the nests may be made of wire and hung against the wall. The cupolas

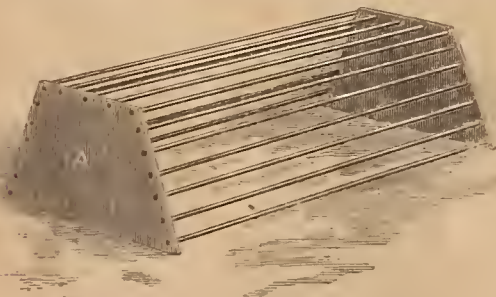


DOUBLE-GLASS ROOF HOUSE.

are for ventilation. The roof windows are raised and lowered by a cord and small pulley to each window from the alley. The house should be plastered so as to more easily prevent lice. Roosts, nests, etc., should be movable. The house can be made of sod in the prairie sections. The house will accommodate sixty hens, or fifteen in each pen. The design is by Mr. O. A. Lewis, Jetmore, Kansas. The arrangement of the yards and wire fences is shown in the illustration, a description being unnecessary.

## FEEDING-COOP FOR SMALL CHICKS.

A coop to prevent fowls from consuming the food given the chicks, is a design by Mr. R. W. J. Stewart, Bowls, Georgia, which he describes as follows: This spring, having need of new feeding-coops, and having no nails convenient, though I had plenty of "lumber sticks," I cut two pieces for gable ends (A), the boards being two feet wide at the bottom, tapering to one foot at the top. With a three-quarter-inch bit I bored holes for the sticks; the sticks being two and one half feet in length, and rounded where they entered the holes.



FEEDING-COOP FOR SMALL CHICKS.

They were driven into the gables and the coop was made. Bore the holes in a straight line one and one half inches from the edge of the boards. The coop is very light, and can be set over drinking-vessels, troughs, or moved to any place. It will prevent ducklings from getting into the trough, or may be used to protect flower beds from fowls. It is a cheap, easily made and handy arrangement.

## CHANGING FOR PRICES.

When eggs are sold off the farm it is simply a change of the forms of the food consumed. A bushel of wheat, which may not sell at a profitable price in market, may be converted into eggs that are in demand. It is, after all, but the selling of the wheat in another shape, the hens being the mediums, or agents, for manufacturing eggs from other substances. If the farmer can get a higher price for one article than he can for another, he gains the difference; but it will not pay him to keep stock that does not give good returns for the food consumed.

## ENSILAGE FOR POULTRY.

A large quantity of green food may be cut up fine and stored in barrels, hogsheads or boxes, for winter use. To do this properly the green food should be cut when the plants are near maturity; that is, when the seed heads are forming. In this condition the nutritious matter will be arrested in the stalks while on its way to fill out the seeds, and will contain less water than if cut at an earlier stage. Clover, alfalfa, grass of any kind, or even corn will answer.

Bear in mind that the point to observe is to exclude the air. To do this great pressure must be given, which is generally done by placing heavy stones on the cut food, the

head of the barrel being so arranged as to allow it to go into the barrel and press on the contents. If sufficient weight is given on the materials they will be pressed as closely together as chewing tobacco in a box.

As the materials must be cut up fine (not exceeding half an inch in length), they will be ready for use in winter, and will be appreciated by the hens. The work of preparing the ensilage is done now, and in winter all that is necessary is to feed it directly from the barrel. The green food so prepared will be succulent, and will provide an agreeable change at a time when only grain can be secured, and it will greatly promote laying. We give the above in reply to an inquiry.

## WHEN TO SELL.

At all seasons of the year but little demand exists for adult males. The quotations seldom exceed seven cents per pound for what are termed "old roosters," but this name is applied to all adult males without regard to age. It will cost more to keep a cockerel six months than to keep him three months, and yet the three-months-old bird will sell at twenty cents per pound, or three times as much as he will bring if kept three months longer. No doubt it appears foolish for persons to lose the opportunity of selling young birds at the best prices, but we can safely affirm that too many pursue just such an unprofitable method. A cockerel that weighs about three pounds will readily bring twenty cents per pound, as it is a "roasting chicken," but one month more may throw it in the class of adult males

simply because it has developed a comb and wattles, and has passed beyond the stage of chickenhood. The time to sell is before the chicks attain the weight of three pounds and when the yards are crowded. Whether prices are high or not it will not pay to keep too many together, especially during the warm season. As prices are high for roasting chicks the farmer should take advantage by selling low.

## GET READY FOR INCUBATION.

Now is the time to practice and learn with an incubator. You will have but little to lose, as eggs are cheap and the keeping at the proper temperature can be done with but little expense. It is not best to wait until you are ready to hatch chicks for market before procuring an incubator, for you cannot then afford to sustain losses, and time will be valuable. You should learn how mistakes are made, and how to avoid them, while you have an opportunity to do so with the least difficulty.

## REGULATING THE SUPPLY.

Before sending poultry to market it would be well to learn what the market demands. If there is a call for broilers the old hens are not wanted. We have seen loads of poultry sent to market, to be sold at a sacrifice, when the kinds desired by customers were retained at home. Even during the period when chicks bring the highest prices no attention is given the weights, yet it is well known that during the several seasons high prices are paid for chicks of certain weights, when those of lower or higher weights will barely sell. It is also a sacrifice to send fowls to market unless they are fat, yet the market is filled with poultry that is in no condition for sale. There is always a demand for the

best, but there is little demand for some kinds, especially if the season for those kinds has passed. Farmers can regulate the supply to, a certain extent by observing the market. The point is to find out the kind of poultry preferred according to the season. No kind of poultry will have the market to itself for a whole year, as custom and preference gives the farmer an opportunity to sell all at some time.

## TABLE SCRAPS.

The scraps from the table are quite an addition to the food, and greatly lessen the cost where but a small flock is kept, but they are of no

consequence whatever when there are large numbers of fowls, as the proportion to each fowl is too small to be of assistance. There are, however, quite a number of families who delight in the keeping of a few hens, and as the scraps are then of value, and the labor insignificant, the flock is sure to give a profit. In fact, where there is a large quantity of scraps, or other waste, we consider it wise to procure a lot of hens in order to consume such materials.

## POTATO-BEETLES AND POULTRY.

All kinds of poultry will eat the soft young of the potato-beetle, and some will even take the adult beetle, but unless the beetle is killed before it is swallowed it will remain alive in the crop, the result usually being the death of the bird. There are many insects which fowls will not touch, for that reason, as the hens have no teeth to masticate them, and must swallow them alive, unless they happen to strike the insect with the beak during the process of attempting to use them as food.

## THE BEST INCUBATOR.

Many readers write and ask us to inform them which is the best incubator. The fact is that incubators differ, each possessing some advantage of its own, and is the best in one respect, perhaps. For me to attempt to select the best would compel me to ignore many that would rival the selected one in many ways. We have given some attention to the matter, and we find that opinions differ, as some operators prefer certain makes, while others are partial to other kinds. Much is governed by the climate, the arrangements, and the attention to be given, as the best depends upon circumstances.

## TO START HENS TO LAYING.

If your hens cease laying, the first duty is to search for lice. If you find lice it is sufficient evidence that the hens were annoyed so severely as to debilitate them. Look in the poultry-house for mites, and on the heads and necks for the large lice. If you find no lice, it means that your hens want something that you do not give, and

that something is lean meat, fresh, and pounded bone. If the hens are confined in yards they will also need chopped grass. Feed meat and keep down the lice, and the hens will lay right on.

## CORRESPONDENCE.

**EXPERIENCE WITH LEGHORNS.**—The May 1st issue of FARM AND FIRESIDE is before me, and I wish to correct a mistake in the poultry department in regard to the Brown Leghorns not being sitters. In the first place I am a great lover of the hens, and am going to tell you of my experience with the Brown Leghorns. A year last March I sent to a breeder and got me a Brown Leghorn cockerel. He was a dandy; he cost me \$2.50. He was so small that we would not let him run with the flock of mixed Plymouth Rock; so I took three half Brown Leghorn hens and my rooster and shut them in an old corn-crib. I was very careful to set every egg from them, and I had the prettiest pullets you would wish to see, and all alike. My pullets commenced to lay in February and layed up into May, when they went to sitting. Now I have two with large broods of chickens. One is caring for eighteen and one for sixteen chicks, and I have three hens sitting. A cat or a rat could not easily get a chicken from them. I have always had from forty to one hundred of half Plymouth Rocks, and hardly ever had any eggs, but plenty of sitting hens. Now I intend to fatten all my heavy, egg-breaking hens with my turkeys this fall, and keep only Brown Leghorns, for my experience teaches me that they are good layers and sitters, and the best of mothers. *Mrs. H. E. V. Marathon, Iowa.*

**HATCHING CHICKS ARTIFICIALLY.**—I will endeavor to give the readers of FARM AND FIRESIDE a short talk on the chick question, and the operation of incubators. The first thing is to get a good breed—the one suited to your purpose. If for eggs, a non-sitting breed; if for market, a market breed. If you are raising chickens on a large scale, get a good incubator, as it is much cheaper to raise chicks by artificial incubation than to depend on the old hen. With an incubator you can hatch your chicks just when you want them, but with a hen you have to wait until she is ready. The main question now is in the operation of the incubator. There is a great difference of opinion on the moisture question. Some good hatches have been made without any moisture at all, and good results have also been attained with the use of moisture from the first start. Now I wish to ask the readers, does a hen ever moisten her eggs? I affirm that she does not, and that she hatches better in dry weather than in rainy or damp weather, which I think goes to show that the majority of us use too much moisture. Another great point with the incubator is in the kind of a place it is operated in. If it is in a dry, tight room, it will need more moisture and ventilation than if operated in a cellar. If it is in a cellar, but very little moisture, and if the cellar is damp, do not use any. An important matter is the heat. On the last three or four days of the time due to hatch is when most of the chicks die, which is caused by too much heat. Look at the old hen when she first hears a chick pip. She will not press on the eggs so closely, but will give them plenty of air, and a great many times she will get off the nest. My experience and opinion is that 95 degrees is warm enough after a few chicks are out, and good ventilation; but the heat should be 100 degrees the last four days. I would rather have them come out a little weak than die in the shell. *W. D. F. Alford, Iowa.*

[We believe that 95 or 100 degrees is too low. —Ed.]

## INQUIRIES ANSWERED.

**Probably Chicken-pox.**—Mrs. D. W. V., Florence, Oregon, writes: "The combs of my hens blister, and then scale off. They become lame. All have taken it within a week."

**REPLY.**—The symptoms are those of chicken-pox. Nothing can be done except to keep the birds in a dry place, though the combs may be anointed with sweet-oil.

**Cramps in Ducks.**—F. O. P., Thedford, Neb., writes: "I have a lot of puny ducks that began to draw up, walk a few steps, sit down, turn over, and die. They have free range and plenty of water."

**REPLY.**—The difficulty is cramps, due to the ducklings drinking too much very cold water, as well as being chilled by going on the water.

**Scaly Legs.**—Mrs. J. D. P., Aurora, Illinois, writes: "My Brown Leghorns have something similar to scale on their legs. They become lame, and some die."

**REPLY.**—The cause is scaly-leg, due to a minute parasite. The scales also afford a harboring-place on the legs for lice. Mix one part kerosene and three parts lard or lard-oil, and anoint the legs once or twice a week.

**Lameness.**—F. W., Beloit, Wis., writes: "About five weeks ago one of my hens became lame, and walked on the shanks of her legs. She is a good layer, has full appetite, but does not seem to have the use of her legs."

**REPLY.**—There is a probability of the lameness being caused by the hen being fat, and jumping from a high roost to lard ground. Remove her from the male, and keep her on straw at night.

**Do Not Lay.**—M. H., Howe, Idaho, writes: "I have about forty hens, but get very few eggs. They pick their own living, have grass and insects and some grain. They are in good condition. What shall I do to make them lay?"

**REPLY.**—The cause is probably due to lice. Look on the heads and necks for the large lice. Anoint heads with sweet-oil. Clean the poultry-house in order to destroy the small mites. Dust the hens with insect-powder and provide them with a dust-bath of coal ashes or dry dirt.

**Food for Chicks.**—G. H. S., Olympia, Wash., writes: "What is the best food for chicks about three months old, that are kept confined in a small pen? What is the cause of some of them having swollen eyes and sore feet?"

**REPLY.**—Feed anything that they will eat, but do not omit chopped grass, and allow ground bone. The sore feet may be the result of so many causes that we can only conjecture which is the one in this case. It may come from the use of wood ashes in the yards. Swollen eyes usually result from an overhead draft at night.

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right around to the side door, and my sister will gladly give you one."

As the stranger passed the piazza, he touched his hat to the squire, and remarked that it was a fine morning.

He was a well-looking, dignified man in spectacles, and with every appearance of a gentleman. Margaret was therefore greatly astonished to hear Maria talking in loud, excited tones, and on hastening to ascertain the cause, was met by her father hurrying down the steps, while Maria, greatly agitated, ran around the corner of the house, followed by the stranger, and crying in a beseeching voice:

"Oh, father, father, it's Richard. Do forgive him!"

But there was no need of her intercession. The joy and peace that shone in the old man's face as he was clasped in the outstretched arms of his son, told plainer than any words could have done that hatred had been conquered by love.

KATHERINE B. JOHNSON.  
THE END.

A PAIR OF CHAPPED LIPS.

"Weather like this chaps one's lips so! A box of lip-salve—the tinted sort," half whispers a girl at the counter of the drug-store, where I am buying a package of court-plaster.

A smile steals over my face—I feel it—and the clerk who waits on me, after he has taken the young lady's order and opened the door for her, with a gallant bow, says:

"That's one of the ways ladies take to color their lips. They always want the tinted—notice?"

I laughed politely at his witticism, but I am not thinking of lip-salve, but of the lips. A pair of chapped lips came very near altering the whole course of my life once. I'll tell you about it:

I was awfully in love with Marcia Morse, even before I knew her. I used to follow her about; buy gloves at a counter where she was buying some; ride miles out of my way, because she was taking a car in that direction; listened to the dullest sermons ever preached, because the church she attended was that which was unfortunate enough to have put the Rev. Mr. Longdrawl into the pulpit, and at last, when I had the happiness of obtaining an introduction, I exhibited an ardor that I do not notice in young people nowadays. I courted her, I won her, and I contrived to get her to set the day—all in six months. Though I was studying medicine, I had plenty of money in my own right, and was not obliged to wait to make my fortune before I took a wife, as most new-fledged doctors do.

Marcia was peculiarly situated. Her widowed mother had married a celebrated foreigner—I never knew what he was celebrated for, by the way—and was not very anxious that he should know that she had a daughter of seventeen. Therefore, she did not summon her to Italy, where she resided in some magnificence, but left her still at Miss Garland's school, where she was now little more than a boarder, "taking the extras."

The dear mama was good enough to write from the "palace," whence she dated her letters, that she was charmed with what she heard of Mr. Ferdinand Roth, and knew his family. She also sent her "darling daughter" some lovely pearls, and as Miss Garland was delighted to have the wedding take place in her parlors, all was happily arranged. The chances that everything would run smoothly were very great, and but for a pair of chapped lips I presume I should have no story whatever to write—nothing to look back upon which could make me sympathize with lovers in distress—if there are any nowadays. But to continue:

I was a privileged person at the "institute," and could call and ask for Miss Morse whenever I pleased, and I availed myself of the privilege very frequently.

One evening I ventured to ring the bell at the hour between daylight and darkness which preceded tea-time, and being shown into the parlor, was informed that Miss Morse was out, but would be in soon.

"Shall I light a lamp?" asked the maid.

But I replied that I preferred the twilight, and drew near the window to watch for Marcia's coming. As I did so a voice cried out: "Oh, Mr. Roth, the other chair, please! I'm in this one—Miss Patterson."

And when I had, with many apologies, taken the other chair, and was beginning to thank fortune that I had not made an awkwardly absurd mistake, Miss Patterson began to chatter.

"What frightful weather you do have North! Down in Texas, where I was raised, it is always lovely."

"I should say so," said I. "I suppose that is why girls who come from Texas are always so charming."

"Do you think so?" cried Miss Patterson, with a giggle. "I thought you North gentlemen just hated the South young ladies—don't you, really?"

I told her that we usually fell in love with them at first sight.

Sallie Patterson was a girl no man could help flirting with, and she slapped me with a magazine she had in her hand, and I caught it; then I said:

"What a lovely rose you have in your belt!" and she allowed me to smell it.

It was just boy's fun. I had never flirted with Marcia; I was too deeply in love with her. But I was not expected to sit like a don-

key and say nothing to a jolly little thing like Sallie.

"A hot-house flower," said she. "Now, in Texas there are roses like that blooming out of doors to-day. I declare, I don't care to go out. My hands are all chapped; naturally silk floss won't stick to them—that's the test of a real lady, you know—but here they get like a washer-woman's."

"Don't believe it," said I. "May I touch one of them?"

I caught it.

"Why, it's like alabaster!" said I.

"No; they are just as rough—and, oh, my lips!" said she. "You ought to see them."

Satan was certainly at my elbow.

"Can't it be the dark," said I. "I must apply the test of touch."

I caught her about the waist as I spoke, and kissed her on the softest, plumpiest lips you can imagine. I thought myself challenged to do it, and I still believe I was. But at this identical moment the iup who had led me into mischief deserted me, and Sallie Patterson and I suddenly stood in the center of a brilliant illumination.

There was a street-lamp of double-extra power before the door of Miss Garland's seminary, and the wretched lamp-lighter had just turned it on full head and touched it with his flambeau; and at this identical moment Marcia—my Marcia—who had come in at some side entrance, and being told of my presence, hastened to meet me, entered at the parlor door, followed by the august Miss Garland, who bore in her hands a favorite student's lamp. Sallie Patterson shrieked and fled. I groaned. Marcia dropped upon the floor a dozen little parcels wrapped in tissue-paper, and threw herself upon a sofa, where she hid her face in her hands; and poor Miss Garland, after standing for a moment in the middle of the room, like a statue of some female Diogenes in search of an honest man, carried the lamp to the center-table and put it down, saying in a bewildered fashion and with closed eyes, and head moving slowly from side to side: "Oh, dear! oh, dear! oh, dear!" Then she passed out of the room, shutting the door behind her and leaving us together.

"Oh, Marcia!" said I, going down upon my knees as soon as we were alone. "Oh, Marcia!"

"Don't speak to me!" said Marcia.

"But I want to explain," said I.

"I don't want any explanations," responded Marcia. "I never, never, never wish you to speak to me again; and if you don't go at once, I shall ring and ask the maid to show you to the door."

"Marcia!" I moaned.

"Kindly address me as Miss Morse," said Marcia, "and don't force me to call upon Miss Garland to protect me."

Nothing could move her. I was obliged to go away at last, and the next morning a note summoned me to an interview with Miss Garland.

She gave me my letters, my ring, and a message from Marcia to the effect that "Love could not survive esteem," and informed me that Miss Sallie Patterson's parents had been requested to recall her to her home in Texas. And I went away, intending to shoot myself. It is self-evident that I did not do so, but I was most unhappy.

I must have been very romantic, for I never harbored the idea that there were as good fish in the sea as ever yet were caught, but I felt myself robbed of love forever, and after sundry vain attempts to make my peace, I joined a party of friends who were about to make the tour of Europe, and was absent from America three years. In all that time I never forgot Marcia, or ceased to think myself the most wretched young man alive.

This, however, did not prevent me from "doing" Europe carefully, coming at last to Vesuvius, which we had left for a *bonne bouche*.

A large party made the ascent on the day we sought the spot. We took horses at Resina and rode as far as we could, leaving them at last at a lava-bed that looked like the moon as seen through a telescope.

There were our men, an English party of eight—four wives and four husbands, and an American party of twenty from one hotel. All the ladies wore veils, as well as some of the men. A crowd of guides and boys were mixed among us.

It was hard climbing up the cone, and when at last we reached the crater we were glad to sink down and rest awhile.

I found my place directly behind two ladies, who sat very near the equator, and it occurred to me then, as it has many a time since, that women are very apt to take great trouble and fatigue themselves very much in order to reach some celebrated spot, where they sit down at once and discuss some personal matter that might as well have been talked over in their own parlors. The lady nearest me was doing this.

"General Stamper is ages older than I am," she said, "but so distinguished and handsome! I was really proud of him on our wedding-day. And I'm to scud all our furniture down from New York when we get back, from the finest upholsterers. This is our wedding trip. I was so surprised to see you at the hotel."

"I am glad you are happy," said the other lady gently, and a little sadly.

"But aren't you?" cried the first. "Oh, dear! Who was that handsome man with you at the hotel?"

"My step-father," replied the second lady, "Count V—."



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"And didn't you ever make up with your admirer?" went on the questioner. "Why, don't say that. Did you think he was making love to me real for true? Now, you needn't try to get up. I will talk. He never, never had ten words to say to me before that! I don't care what you think of me; I'll tell the truth. I loved to flirt, and I just wanted to have fun. I led him on to try to kiss me. I didn't think he'd dare. Why, he never cared that for me! You've been dreadful to him, I say. Now, listen—"

The other woman was struggling to rise, while the speaker held her by the skirts, and at that moment slipped in the soft earth and fell forward toward the crater.

Her companion gave a shriek. I caught her just in time. Bewildered, terrified, she allowed me to lead her to a safe place, while her friend was seized upon by an old gentleman with white mustache, and dragged away.

The green veil was over the face that rested in a moment of faintness on my shoulder; but I had no doubt whose waist my arm encircled, and I whispered in her ear:

"Oh, Marcia! oh, my darling! I never for a moment loved any one but you—forgive me! I have been so very wretched. Forgive me, and let all be as it used!"

Did she? Oh, yes!

We were married there in Italy. The count and countess thought our reconciliation "charming," and our unhappy estrangement soon seemed to both of us like a bad dream; but when that girl said "chapped lips," it all came back to me in a rush. Bless you, it all happened years ago. That court-plaster I was buying was for our little Ferdy, who managed to cut his finger with his first jack-knife, while making a toy boat for Sallie to send her doll out sailing in.

My wife and Mrs. General Stamper are the best of friends. We named the girl for her—Mary Kyle Dallas, in *New York Bazar*.

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Our Household.

"IF."

If, sitting with this little, worn-out shoe  
And scarlet stocking lying on my knee,  
I knew the little feet had pattered through  
The pearl-set gates that lie 'twixt heaven  
and me,  
I could be reconciled and happy, too,  
And look with glad eyes toward the Jasper  
sea.

If, in the morning, when the song of birds  
Reminds me of a music far more sweet,  
I listen for his pretty, broken words  
And for the music of his dimpled feet,  
I could be almost happy, though I heard  
No answer, and but saw his vacant seat.

I could be glad if, when the day is done,  
And all its cares and heartaches laid away,  
I could look westward to the hidden sun,  
And, with a heart full of sweet yearning,  
say,

"To-night I'm nearer to my little one  
By just the travel of a single day."

L. L. C.

If I could know those little feet were shod  
In sandals, wrought of light in better lands,  
And that the footprints of a tender God  
Ran side by side with his, in golden sands,  
I could bow cheerfully and kiss the rod,  
Since Benny was in wiser, safer hands.

If he were dead, I would not sit to-day  
And stain with tears the wee sock on my  
knee.

I would not kiss the tiny shoe, and say,  
"Bring back again my little boy to me!"  
I would be patient, knowing 'twas God's way,  
And wait to meet him o'er death's silent sea.

But oh! to know the feet, once pure and white,  
The haunts of vice have boldly ventured in!  
The hands that should have battled for the  
right

Have been wrung crimson in the clasp of  
sin!

And should he knock at heaven's gate to-  
night,  
I fear my boy could hardly enter in.

DRESS.

**T**HIS all-absorbing subject never  
gives us a bit of rest. Until  
the season is upon us, it is hard  
to know what we must have,  
and those who leave their de-  
cisions till late find every  
modiste so crowded as to make it impossible  
to get anything done.

A white wool suit made now will be  
serviceable until late fall. The pretty  
shoulder effect, given in our illustration,  
shows a pretty style, using black velvet as  
trimmings.

The new jacket, with effective shoul-  
ders, is made in velvet, lined on the shoul-  
ders and revers with silk. This makes a  
very lovely accessory to a plain, gray suit;  
making the silk linings pale pink or cherry  
scarlet, or the numerous shades of heli-  
otrope.

For wash dresses the cross-over bodice is  
very much worn, as it is so easy to launder.  
It is made from a surplice front pattern,



WHITE WOOL SUIT.

only letting the ends come out larger in  
pointed ends to tie in the back.

The summer outing costume of lawn or  
grenadine, with a shoulder-cape in accor-  
dion-plaited white silk and a large hat,  
gives a very summery look to the fair  
wearer.

Under bodices can be made of soft mus-  
lins, similar to the sacque-chemise pattern,

thereby avoiding so many seams, and can  
be drawn into shape with ribbons.

With the full skirts comes the necessity  
for a skirt to hold out thin dresses that  
cannot be made with crinoline. Make a  
skirt of mohair and line the ruffle in front  
with crinoline to the knees, and to the  
waist in the back.

These are best kept entirely for walking-  
dresses. All street apparel, to be kept in  
nice order should be changed for house  
dresses in the house, as sitting about in a  
good dress spoils it very much. Alpaca is  
also very nice for these skirts. After wear-  
ing the soft silk skirts, everyone is loth to  
go back to starched white ones, or stiff ones  
of any kind; but if the full dresses last,  
something of that kind must be worn.

Worth predicts such an entire change  
from the present styles before Christmas  
as to make the present dresses seem quite  
out of style; so it will be best to make few  
dresses while everything is so fleeting.

FOR GOOD HOUSEKEEPERS.

There are few things in which a good  
housekeeper takes such real comfort and  
satisfaction as in a well-filled pantry. If, as  
she opens jar after jar in the winter, to add  
to a meal and make it more appetizing,  
each is found to be very good—neither can-  
died nor sour, jelly not too thin, but of the  
consistency that just "turns out" beauti-  
fully—we will forgive and sympathize  
with the honest pride that she feels in her  
ability to present well-prepared sweets to  
her family. Not always are preserves in  
such good condition, however.

As the season is now beginning when  
jelly-making, canning and preserving  
must have full attention, I venture to  
offer some personally-tried recipes, never  
found wanting.

We are in the berry season. Never have  
they been better or more plentiful, but fre-  
quently cheaper, than at this time. Com-  
paratively few persons care for strawberry  
preserves. Canned they are not entirely  
satisfactory, and preserved they are "too  
sweet." But to please all, I give a recipe  
for each. Be sure that no soft berry, with  
even a slight spot of decay, has escaped  
your notice. Only the best fruit should be  
used for canning or preserving.

This recipe for canning is about the same  
as Mrs. Rorer gives in her cook-book. I  
had tried it before, and none could be bet-  
ter. Each glass jar, rubber and lid must be  
examined. If all right, lay the jar down  
on the shelf of the range, or where it will  
get very hot. Directly over it, on the  
mantelshelf, put its rubber and lid. Measure  
the berries, after carefully picking and  
washing, and to each quart allow half a  
pound of granulated sugar. Use a por-  
celain-lined kettle. Put in the fruit first  
and sprinkle the sugar over it; let it stand  
an hour. If you want them clear and firm,  
add powdered alum, a  
quarter of a teaspoonful  
to each quart of fruit  
(I never use this, but  
many think it indis-  
pensable). Boil slowly  
over a moderate fire five  
minutes, skim clear.  
Have a hot, tin plate  
beside you on the side  
of the range; set the jar  
on this, fill two thirds  
with fruit and the re-  
maining third with  
juice. Wipe quickly  
the edge of the jar until  
dry, slip on elastic and  
lid without delay and  
screw very tight. The  
plate must be kept dry.  
Set the jars on the  
kitchen table to cool,  
and keep in a cold, dark  
closet. Next morning  
try the lids; you may  
be able to give them one  
more turn.

This recipe for pre-  
serving strawberries is  
given in "Common  
Sense in the House-  
hold," Marion Harland's  
most excellent book of  
recipes: Weigh one  
pound of granulated sugar to each pound  
of fruit. Put in your kettle over the fire  
until the sugar melts; boil twenty-five  
minutes fast. Take out the fruit with a  
skimmer and fill your cups or tumblers  
three quarters full. Boil the syrup five  
minutes longer, fill up the cups and seal  
while hot. Keep in a cool place that is dry,  
not damp.

Blackberries may be canned in the same  
manner, except that they require but one  
quarter of a pound of sugar to a pound or  
quart of the fruit.

Last winter I used my blackberries in  
making blackberry paste, or mush, as it is  
called. The recipe for this is: One quart  
of berries, add one teacupful of water and  
put on the fire to boil. Put in two table-  
spoonfuls of corn-starch, mixed very  
smooth and added slowly as soon as the  
berries boil. Some prefer it quite thin; if  
so, one tablespoonful of corn-starch will be



MOHAIR SKIRT.

sufficient. Sweeten to taste. Put in a glass  
dish as soon as it cools a little. Serve quite  
cold. Eaten with cream, no sweet can be a  
more acceptable addition to a supper-table.

Currant jelly is the good housekeeper's  
wealth in the culinary department. A  
friend suddenly appears to dinner. You  
thought to do without dessert to-day. You  
need not. In twenty minutes you may  
beat up an "old-fashioned floating island,"  
which all will enjoy. To each person allow  
one tablespoonful of jelly, one table-spoon-  
ful of powdered or granulated sugar (the  
former is better) and the white of an egg.  
Put all in a deep bowl and with an egg-  
beater whisk the mixture until it is so stiff  
that you may hold the bowl upside down  
without the mixture falling out. Half fill  
your porridge-saucers with milk, float on it  
three small islands of the pink dessert, that  
will be pronounced as good as it is pretty.

With roast lamb or mutton a turned-out  
tumbler of this bright red jelly is an  
appetizing addition to the meat. For a sick  
person, if the physician approves, two  
tablespoonfuls of the jelly in a glass of cold  
water is a refreshing drink. Your ingenu-  
ity will suggest many uses for currant  
jelly. It seems to fit in anywhere. It is so  
easily made, too, and by this recipe it is  
unfailing in result. We have tested it for  
years. No heating of sugar, no under or  
over boiling. Follow these simple direc-  
tions and you have beautifully clear, bright  
red jelly that turns out and stands up, and  
is not hard nor ropy in the least:

Good, ripe currants are necessary. Pick  
out all the leaves, but do not stem the  
currants. Wash them thoroughly and  
put in your preserve-kettle, which  
should be porcelain. Do this before  
breakfast. Stand it back on the range  
where the berries will get hot, but not  
boil, covering the kettle. By the time  
breakfast is over the currants will have  
swelled and many have burst. At once  
mash and strain through a flannel jelly-  
bag. Have cups and tumblers ready.  
To each pint of juice weigh one pound  
of powdered sugar, but do not add to  
the juice, for the latter must first be  
boiled just twenty minutes; then the  
sugar must be added with a wooden or  
silver spoon and stirred until all is dis-  
solved. Fill your glasses and set away  
to cool. The next morning cut white  
tissue-paper to fit the inside of the glass,  
dip the paper in brandy and spread over  
the jelly. Cut brown paper or letter-  
paper—old letters will do—and paste  
tightly over the glasses. Keep in a  
cool, dark closet.

To preserve cherries, use a pound  
of sugar to a pound of fruit. Lay in  
your kettle fruit, then sugar, and put  
in all the juice you have. Boil until  
the syrup begins to thicken; it is then  
ready to put up. We use self-sealing  
jars for our cherries. To can them, we  
take half a pound of sugar to a pound of  
fruit. The juice that flows out in the  
stoning is mixed and boiled with the  
sugar, and well skimmed; then add the  
cherries and boil five minutes, and serve  
while at this heat.

HOPE HOLIDAY.

SHOPPING.

All kinds of family shopping done satis-  
factorily. Specialties in infants' clothes,  
art materials and linens. Inclose stamps  
for reply. Christie Irving, 120 Maple Ave.,  
Springfield, Ohio.

MOTHERS' CLUBS.

Many women, and especially those on the  
farm, lead more or less isolated lives, and  
from force of habit and circumstances nat-  
urally narrow down to the confines of their  
own homes. This should not be, and one  
of the sources of development, both socially  
and mentally, is a mothers' club.

Shall we describe one?

On invitation of Mrs. Shields, a dozen  
ladies met one afternoon at her home.  
When all were assembled and greetings  
exchanged, she told them the invitation  
had been extended hoping they might be  
able to organize a mothers' club, and ask-  
ing permission to read an account of one  
recently found in a paper.

After reading of paper and a little discus-  
sion, it was unanimously decided to  
organize such a club subject to their own  
conditions, and a president, vice-president  
and secretary elected to hold office six  
months, and these, together with a com-  
mittee of two more, to be the executive  
committee.

They decided to hold meetings regularly  
every two weeks on Wednesday afternoon  
at the different homes. The first half hour  
to be devoted to the discussion of current  
events, to keep them in touch with the  
outside world. This was to be followed by  
an hour's discussion of some important  
subject—although the time could be ex-  
tended by a vote of those present. A topic  
was chosen and leader appointed by the  
executive committee at each meeting, for  
the following meeting. Also the leader for  
current events, so that each leader had two  
weeks to prepare herself in.

The leader was expected to have a short  
paper, though some choose an informal  
talk, it being easier, bringing out the main  
points of the subject, to be followed by a  
discussion in which all took part.

As each member took up the work en-  
thusiastically, really hoping to derive  
benefit herself and help the others, the  
meetings were from the first very interest-  
ing, and soon the young ladies asked per-  
mission to join, and were gladly accepted.

So popular did the club become that  
when winter came and the husbands and  
brothers had more leisure, they, too, asked  
to join.

The subjects taken up then became more  
general, but still were all along the line of  
home life or intimately connected with it.  
With the coming of the second summer  
the meetings were again given over to the  
ladies, who decided to discuss purely wom-  
anly, chiefly wifely and motherly, themes.  
These proved valuable to all, and especially  
to the younger members of the club.

When winter came the men were again  
welcomed, and the meetings proved even  
more interesting than formerly, and more  
than one young man and woman became



CROSS-OVER BODICE.

better fitted for fatherhood and motherhood  
because of these meetings, which for aught  
we know are still being continued.

Among the many questions discussed,  
as shown by the secretary records, were:  
"Home Remedies and Symptoms of Dis-  
ease of Childhood," "Ventilation and  
Sanitary Conditions of Our Homes," "Lit-  
erature for Children," "Care of Infants,"  
"Nursing and General Care of the Sick,"  
"Visiting Schools," "Parents' Relation and

Duty to the School and the Teacher," "Food," "Water," "Home Amusements," "Hereditv," "Prenatal Culture," "How to Reach Careless and Uninterested Mothers," "How to Counteract the Influence of Poor Home Training," "Mother's Duties towards Family and Society," "Father's Influence and Duty," "Father's Obligation in the Home," "Recreation for Children and the Whole Family," "Card Playing, Dancing, Roller Skating and Kindred Amusements."

A discussion on the question, "Are the fathers in this age of rush and work doing their full share and fulfilling their duties to family and home? Or are they not, unconsciously perhaps, but by habit and custom allowing responsibilities which properly belong to them to fall upon the shoulders of wife and mother?" continued for three successive meetings with unabated interest, and the facts arrayed and truths brought home, found lasting lodgment in the minds of every member, which was proved by the changed and happier relations in many homes.

CLARA SENSIBAUGH EVERTS.

WISDOM VERSUS WOMAN; OR, THE WISE WOMAN ON THE FARM.

PART II.

"You are so wise, Maria! You are such a wise woman! No one would suspect you of being so wise!" smiled Mrs. McAllister sarcastically. She could not endure to hear Joe's farming gainsaid. Joe never had made much money; but he made her a good living, and she had strong faith in that propitious season for his wheat that was to fructify and ripen into a glorious harvest, when his fortune would be made and her income no longer be regulated by the price of hogs and honey.

"Let us sell out," said Joe, many a budding springtime; but when the autumn breezes blew, he turned over his stubble land and put back into the ground all his year's grain, and—waited.

"If you are so smart," he tauntingly said to Maria, "and know so much about farming, why don't you come out in the hay-field and run the hay-rake, and show me how it ought to be done?"

Maria consented with alacrity; nothing



SUMMER OUTING DRESS.

would give her more pleasure. She flung into her hat and out into the field before Mrs. McAllister could find words to object.

Jerry, the long-eared donkey, patiently waiting in the shade, was slow but steady, though a little hard to start. Joe mounted Maria on the rake, then giving her the reins left her while he took the men into another part of the field.

"Drive up," he called, as he saw her vainly tugging at the reins.

"Hi, hi, there! Go on! What's the matter with you?" said Maria to her steed.

"What she thinks she's driving?" grinned Sandy, one of the men.

"Hi, hi, there! You're a nice-looking, long-eared beast! Can't you move anything but your ears?"

"Hit him with the reus," called Joe.

Maria leaned forward and gave him a vicious whack with the end of the reins on his fat haunches. Commotion followed in the harness. Maria seemed to be flying in the frantic circling sweep of the arms. The right wheel completely lost its orbit; and down came every iron finger with a crash on a pile of stones concealed in the weeds. The men halloed "whoa," and ran hurriedly to her assistance. Mrs. McAllister heard the cry, saw from her window the excitement, and terrified, ran to within speaking distance. Visions of Joe getting killed haunted her daily.

"Oh! is any one hurt?" she called tearfully.

"No," said Joe; "I wish they were."

"What is the matter?"

"I have broken my rake."

"Oh! is that all? I am glad it wasn't your leg."

"I wish it were Maria's leg! I wish somebody had kicked me when I was fool enough to put her on the rake! Wish I may be kicked if ever I do it again! I don't want any woman helping me."

Joe was too angry at himself to hear Maria's apology, and she meekly followed Mrs. McAllister back into the house.

"Do keep away from the men," chided Mrs. McAllister warmly. "You are like a hare shot through the head, when you try to be so very smart."

Was it this luckless speech that stirred Maria's gall? Mrs. McAllister was enjoying her first good afternoon sleep since Maria's appearance on the farm, when Joe's voice came sharply, impatiently at the window.

"Mother, mother, if you don't come and take this latter-day saint out of my barn-yard, I'll break her neck!"

"Oh, Joe, don't speak so!" exclaimed his mother in alarm.

"I'll break her neck, I say! I am that angry I'll break her neck!"

"What is she doing now?"

"Why, she is out here arguing with the men—blowing off on the eight hour system, and the devil knows what. I can't get the men to work; and I want you to take her out of my barn-yard."

Mrs. McAllister hurriedly pinned up her garments and followed Joe. Joe's men were an important appendage to the farm; no one should touch Joe's men. At her call Maria came, smiling.

"Don't you talk to the men," said Mrs. McAllister, as soon as she could speak.

"I am old enough to talk to the men, I should think, if I want to."

"Don't you talk to Joe's men. He won't have it, and I won't have Joe annoyed. It is a pity you can't be quiet."

Mrs. McAllister again trotted her into the house, and seated her in her rocker with an emphasis that was meant to keep her there the rest of her visit.

How restless Maria was! How tireless in her efforts to make herself useful! There was not a loose board on the garden fence that she had not noted and vainly tinkered. She sighed over the historic thistles, blooming unmolested in the pasture; she grieved over the fallow-ground in the corners, where blackberries should now be ripening in the sun. There was not a cranky gate hauling on one hinge, or a creaking door grating on two, that she had not belabored in fruitless efforts to reform. If Mrs. McAllister endeavored to sweep, there was Maria, where the dust flew thickest, so deeply interested in the recital of some experience that the stayed broom was no suggestion that her presence might be unwelcome. She chatted at her elbow as she followed her about the house, to the confusion of her memory, and the marring of cakes and sauces, giving many useful suggestions how this or that should be done, but causing Mrs. McAllister many useless steps to circumnavigate her and avoid an inevitable collision.

"Do you cool your milk so?" she said in surprise, as she saw the flowing milk-bucket standing in the water. "Why, at the creamery they let it cool slowly, and then, in air-tight cans, put it in ice-water."

"But if you haven't any ice?"

"Oh, I don't see how you live without ice! A nineteenth century farm ought to produce both ice and gas to keep up with the times."

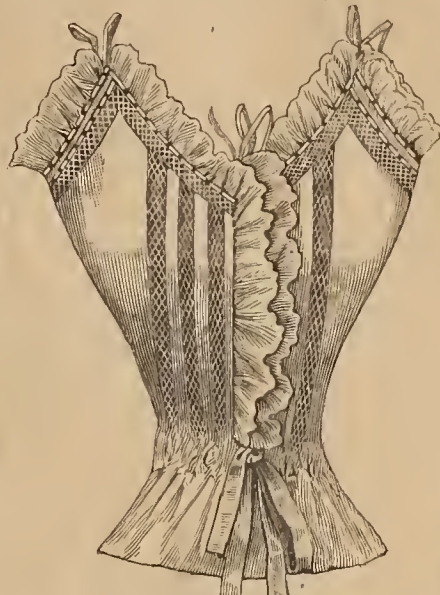
Yet how exultingly happy was Maria in all these varied pursuits. Happiness

danced in every crinkled curl; it fluttered in her petticoats, as she tripped from tree to tree, from field to field. One little farm grew too small for her light-hearted glee.

"I am going to take a ramble," she said, smiling radiantly upon Mrs. McAllister. "Don't say you can't sleep this afternoon."

She stood equipped at the door, at high noon, a big sun-hat on awry, a cotton umbrella, and a package of papers under her arm. She scoffed at being too warm when such a breeze was blowing; she smiled at being afraid of cows in the pasture-lot. Off she started, and a Sabbath stillness reigned over the house.

How healthful was everything! How



UNDER BODICE.

the corn glistened in the sun; how the grain waved in the wind; how cool and sparkling the running rill! Oh, it is glorious to be well, strong and active, with two dainty feet to skip over the fields, and two white hands with nothing to do! She afraid of cows! Oh, no! she had seen cows before, so over into the pasture she went, umbrella hoisted high and papers glistening white in the sun. The cows were swinging their tails in the shade of the big thorn-tree, far off in one corner of the field—so far that she did not see them till she had entered some distance into the pasture; but their sharp eyes discerning something strange, they came forward to meet it, growing seemingly in numbers as they advanced, at first slowly, and then with more hurried step. How beautiful they were, with their fat, sleek sides, their smooth, circling horns, shrinking spines and tails held at a fierce right angle. She watched them with bated breath as they charged upon her, throwing the dust in clouds; and then raising their voices in mad protest, circled wildly around her.

"It is surely my umbrella they do not like," says she, and down goes the umbrella. The sun is hot, but not as hot as the reeking oxen that crowd still closer, smelling at her papers and rolling their big, staring eyes till no refuge is left but to climb the thorn-tree. Choking with dust she sprang lightly into its branches, though her papers are dropped in the ascent, and tossed from horn to horn by the trampling herd beneath. A thorn-tree is not a desirable roosting-place for a siesta, but as she removes the objectionable thorns and screws herself into a bearable position between its tough limbs, she calls pleasantly down to the amazed cattle:

"Take a good look, bossies; I hope you will know me next time you see me; when you get tired of looking, go eat your grass. I am not in any hurry; I can wait."

Indeed, she waits. Hour after hour they stand in the shade, slashing their tails and pawing the dust, sometimes horning each other from the inner circle, and moving a foot space. Ah, what are her thoughts as she sits among the tree-frogs, with the whistling hawks circling wonderingly over her head? She gazes into space, and sighs anon for her freedom and the security of the city park, where wild beasts are properly caged and burly policemen keep guard. But the sun creeps slowly onward in its daily course. The six o'clock city whistle sends forth its sounding note. Lower goes the sun; it peeps under the shining leaves; it smiles in the upturned faces of the waiting herd.

"Hi, hi, there; go away from there!" calls Maria.

Her feeble voice is drowned in one bel-lowing cry from below.

"Hi, hi! Shew!" she calls again.

No movement except to toss their horns in derision. The men leave the neighboring fields, the sun is almost gone. Away in the distance a shining bucket catches its

last rays; a white shirt-front is seen on the hill; a deep voice is heard calling: "Sook-y!" Every head is up in an instant; every tail falls motionless.

"Sook-y!" comes again. There is a movement in the herd.

"Sook-y!" And onward they rush, in one wild, tumultuous gallop. The dust flies heavenward as Maria crawls earthward and slowly wanders toward home. Tattered and weary she sinks into her rocker, and finally sighs: "I have had an adventure."

This closed her week's visit. On the morrow she was wild to attend a woman's meeting, held in the city. Dust and heat would not deter, difficulties in no way allayed her zeal, and as the horse was in use in the hay-field, she started off on foot.

"Oh, Joe, I am mortified to death to have her walk!" sighed Mrs. McAllister at dinner-time.

"Is she gone? Did she walk? Why, it is hot enough to melt the grease out of her whalebones," cried Joe, with a smile.

"Yes," again sighed his mother, "I could not keep her."

"I am glad of it, mother," said Joe, making very long gestures with a very broad hand. "If I had a horse as conceited as she is, I would work it out of him, or he would die in the harness."

"Now, Joe, that's enough," said Mrs. McAllister with another sigh and her right hand upheld protectingly before her friend's retreating footsteps.

"I tell you, mother, if I had a cow as restless as she is, I—I would nail her up to the barn-door, if I had to go to Jerusalem for the nails."

"Now, Joe, I say that's enough."

"There are some things, mother, that won't thrive on a farm; and I guess too much learning is one of them. And I tell you, an idle woman, that thinks she knows everything, is just dangerous. Don't you bring Maria here any more. Let her stay in town, where she can have plenty of ice and gas, and where she can cultivate her finger-nails and keep up with the times. We don't need her out here."

"Joe; I say, Joe, that's enough."

ADALINE REED.

THE FARMER AND THE NEWSPAPER MAN.

Many men think that newspaper men are persistent dunners. By the way of comparison, let us suppose a farmer raises one thousand bushels of wheat a year, and sells this to one thousand persons in all parts of the country, a great portion of them saying, "I will hand you a dollar in a short time." The farmer does not want to be small, and says all right. Soon the one thousand bushels are gone, but he has nothing to show for it, and he then realizes that he has fooled away his whole crop, and its value is due to him in a thousand little dribbles, consequently he is seriously embarrassed in his business, because his debtors, each owing him one dollar, treat it as a small matter and think it would not help much. Continue this kind of business year in and year out as the publisher



NEW JACKET.

does, how long would he stand it? A moment's thought will convince any one that a publisher has cause for persistent dunning.—National Labor Tribune.

I Cure Dyspepsia, Constipation

and Chronic Nervous diseases. Dr. Shoop's Restorative, the great Nerve Tonic, by a newly discovered principle, also cures stomach, liver and kidney diseases, through the nerves that govern these organs. Book and samples free for 2 ct. stamp.

DR. SHOOP, Box B, Racine, Wis.

## Our Household.

### AS WE GROW OLD.

As we grow old our yesterdays  
Seem very dim and distant;  
We grope as those in darkened ways  
Through all that is existent;  
Yet far-off days shine bright and clear  
With suns that long have faded,  
And faces dead seem strangely near  
To those that life has shaded.

As we grow old our tears are few  
For friends most lately taken,  
But fall—as falls the summer dew  
From roses lightly shaken—  
When some chance word or idle strain,  
The cords of memory sweeping,  
Unlock the flood-gates of our pain  
For those who taught us weeping.

As we grow old our smiles are rare  
For those who greet us daily,  
Or, if some living faces wear  
The looks that beamed so gaily  
From eyes long closed—and we should smile  
In answer to their wooing,  
'Tis but the past that shines the while  
Our power to smile renewing.

As we grow old our dreams at night  
Are never of the morrow;  
They come with vanished pleasure bright,  
Or dark with olden sorrow;  
And when we wake the names we say  
Are not of any mortals,  
But of those in some long dead day,  
Passed through life's sunset portals.

### HOME TOPICS.

**W**ASHING.—The hardest work to be done in the house is the weekly washing of soiled clothing, and in many homes, much as it is to be regretted, there seems no way but for the mistress of the house to take this heavy task on her already overloaded shoulders.

To begin at the beginning, a clothes-hamper, with a cover, set in the wash-room or wood-shed, and in this should be put all the soiled clothing, towels etc., taken from the rooms every day. No soiled articles should be kept in the bedroom closets, as unwholesome odors will accrue and the air of the room be vitiated. All pieces that are damp must be dried before putting them in the hamper or there will be danger of mildew. I have seen a barrel with a cover recommended as a receptacle for soiled clothing, but a basket hamper is best, as it permits a circulation of air. If a barrel is used, let the small boy have a gimlet and amuse himself by boring it full of holes.

If one must do the washing in addition to the other housework, it is best to make Tuesday the wash-day. Monday the house can be put in order and arrangements made for easily-prepared meals. Then Monday night sort the clothes into two grades, the finer and cleaner in one and the coarser and dirtier in the other. Put these to soak in tepid water in separate tubs, soaping all dirty spots and streaks. In the morning put the ringer on the tub of fine clothes and ring them out, put them in the boiler in cold water in which you have put a tablespoonful of coal-oil or gasolene to each gallon of water, soaping the soiled places again. Let these boil about five minutes, and in the meantime wring out the clothes from the other tub.



CLOTHES-PIN APRON.

Take the first clothes from the boiler and put into clean, warm water and put the others to boil in the same way as the first.

The clothes will need but very little rubbing, many of them none, but after being wrung from the tub the second time, must be well rinsed and then passed, piece by piece, through a bluing-water. Hard water is better than soft for the bluing-water, and the clothes must not lie in this water or they will become streaked with

the blue. As fast as a piece is immersed wring it out.

To make starch, take the quantity needed for the washing, wet it with cold water, and then pour in boiling water, stirring constantly, until the starch thickens and looks clear, then set it on the stove and let it boil five minutes. Put in a half teaspoonful of coal-oil to a quart of starch, take out enough of the thick starch for shirts, collars and cuffs, and thin the remainder for dresses, skirts, aprons, etc. The starch should be used as hot as the hands can bear and well rubbed into collars, cuffs and shirt-bosoms. If this is done and when dry they are dampened, by dipping them into a thin, raw starch, and rolled tightly for an hour, they will iron nicely.

A convenient way to hang up collars and

Perhaps there is nothing in all human intercourse that indicates so sensitively as a letter, whether refinement is put on as a thin veneer on the outside, or whether it comes from the very being of the writer.

A lack of refinement and education are most noticeably indicated.

By using perfumed, colored or fancy paper and conspicuous monograms.

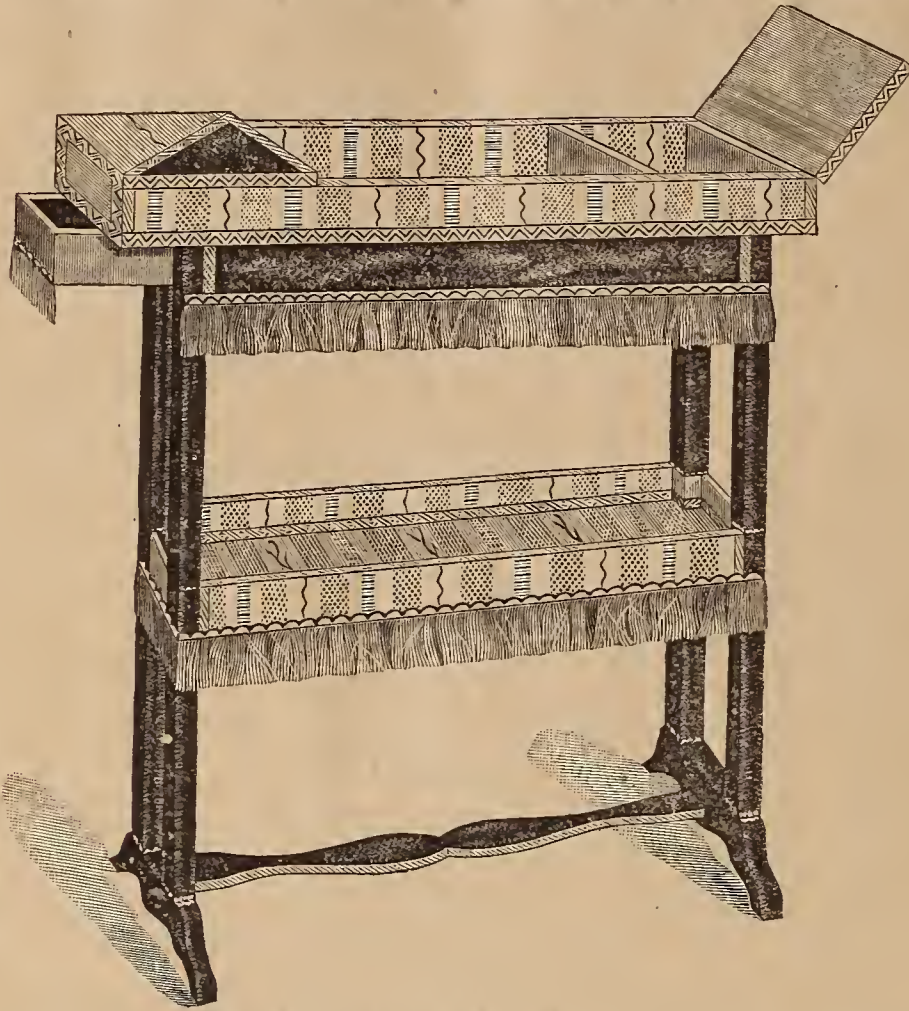
By using fancy colored inks.

By using soiled or crumpled paper, or half sheets, or paper that does not fit the envelope.

By writing down one page and up another, which gives your correspondent the impression that you squint with both eyes.

By writing a feeble, timid hand, with pale ink and a scratchy pen.

By using large capitals, pretentious



MARIE ANTOINETTE WORK-TABLE.

cuffs is to take a piece of stout muslin and double it so it will be about six inches wide and as long as required. Sew buttons on one long edge about an inch apart. The cuffs and collars can be buttoned to this as fast as they are starched, and then to hang them on the line, pin the other edge of the strip to the line.

Another wash-day convenience is a clothes-pin apron. I described this a few years ago, but will give it again. Take a yard and a quarter of denim or ticking. Cut a strip off the side for the belt and then double the piece, round off the lower corners, slope the sides and cut out a piece from each side of one half, as in the illustration. Bind these places, then lay this piece on the other and bind the two together, hollow it out a little at the top to make it fit the waist and put on the band with a button and buttonhole to fasten it. This makes an apron-shaped bag with an opening into it on either side, and is the handiest kind of a bag for clothes-pins.

I hope the time will soon come when the laundry-work will be taken out of the home, as the spinning, weaving, cheese-making and, to some extent, butter-making have been. When a laundry is established in every neighborhood, a heavy burden will be lifted from many a toil-worn woman.

MAIDA McL.

### BETRAYED IN WRITING LETTERS.

A cultured gentleman, speaking one day of a lady whose society manners appeared courteous enough, said: "But when I received a letter from her, addressing me as 'Esteemed Friend,' that was all I wanted to know of her education."

"How often," said a lady distinguished for her social position, "do people write their own death warrants in their letters!" And they never know it—there is the pity.

Howells, in one of his stories, gives a pathetic little incident of a young girl writing for the first time to her lover.

"Ford received Egeria's letters the next morning. He examined its outside, as people do that of letters coming to them in a strange handwriting, and he bestowed a derisive curiosity upon the person who could choose that outlandish shape for a missive."

flourishes, and spreading a small quantity of affection over the page with a great deal of ink.

By using abbreviations, such as &, etc, "dr" for dear, and "aff" for affectionately. "Resp" for respectfully is about as respectful as slamming a door in one's face, and "yours etc." is even worse.

By writing slovenly sentences and leaving off the subject, as, "Received your letter. Will answer soon." It would be courteous to say, "I have received your letter and will answer it soon."

By using slang words.

By folding the sheet awry. Untidiness in any form in a letter is intolerable.

By writing personal affairs on a postal-card.

By losing one's temper.

By writing in a florid, ornamental style, which is as much out of place in a letter as a sermon would be in a morning call.

By writing to a stranger for advice or information and neglecting to inclose a stamp for reply.

By sticking the stamp to the sheet instead of leaving it loose, or putting it neatly through a slit in the paper.

By directing the envelope upside down.

By placing the address very high or very low, or squeezing it in one corner.

By putting the stamp on cornerwise or upside down, or in any way except in the upper right-hand corner, with an even margin all around it."

FRANCES BENNETT CALLAWAY.

### LITTLE ACCESSORIES.

**EVENING BAG.**—This useful article can be made of plush, velvet or chambray, lined with silk. It is very convenient to carry a fan, gloves, slippers and a few toilet necessities, when going out for the evening. It should always contain a bottle of smelling-salts for emergencies.

**TOILET-BOX PINCUSHION.**—This can be very easily made either from a pasteboard box or one of the pretty willow baskets that contain tea. Any adornment can be put upon them—a band of ribbon with just enough cotton batting on it to receive pins, or the whole top can be padded to be used as a pincushion. The box is good as a receptacle for the numberless little things one needs about a toilet.

**NIGHT-DRESS SACHET.**—This receptacle for holding the night-dress is made of linen lined with quilted satin, and any preferable sachet-powder is used; when arranged it is put right in front of the pillows.

**MARIE ANTOINETTE WORK-TABLE.**—Any one the least handy with tools can fashion this quaint little table. It should stand two feet and a half from the floor, and be a foot and a half wide. The receptacles are lined with canvas embroidered in cross-stitch, though the adorning can be to suit the room it is to occupy. Shirred silk and fringe would trim it nicely, or a severely plain linen trimming which could be taken off and washed when soiled, is very desirable.

These pretty things about the house show up the housekeeper. A house without these little accessories is a very plain place.

L. L. C.

### SOMETHING SPICY.

Does the thrifty housekeeper, when she takes down her spice-boxes from the kitchen cupboard to grate a sprinkling of nutmeg into the apple pie, scatter a pinch of clove or allspice through the custard or pudding she is preparing; some ginger into the delicious soft gingerbread, or ground cinnamon over the "brown Betty," always know where these aromatic ingredients come from?

A knowledge of the little things which we make use of in our daily lives often widens the horizon of our thoughts and enlarges the scope of existence for our minds.

I believe it is George William Curtis, in his little book, "Prue and I," who tells how he used to go down to the wharves where the merchantmen were lying, and placing his hand on the tarred ropes, summon up the vision of foreign ports from which they came; be charmed with their beauties and inhale the scent of their spices. But the little nest of japanned boxes containing the spices themselves discounts the touch of the tarred ropes ten to one. I remember, when I was a little child, I went to church with a dear old lady who used to carry tied up in one corner of her immaculate linen pocket-handkerchief, quite a number of cloves. As children were expected in those days to attend both morning and afternoon services, my sisters and I often grew restless in the midst of the meeting. To allay this restlessness on our part, the knot in the handkerchief corner was untied by the old lady, and with an air of solemn secrecy a few cloves were handed to the one sitting next to her. These were passed on with the same air from hand to hand, until they reached the offender, who, it was expected, would receive them as a reproof for her misbehavior and a bribe not to do so any more. She then sat back and nibbled at them and behaved herself, if she had any conscience whatever. For many years cloves had for me an odor of sanctity, in addition to their own peculiar oriental fragrance.

The clove-tree is an evergreen which grows in the Moluccas, or Spice islands, lying in the East Indian archipelago, east of India and south of further India and China. The principal islands of this archipelago, which includes a great number, are the Moluccas, the Philippines, and Java, Sumatra and Borneo. The clove-tree is likewise a native of Java and China.

Its botanical name is *Caryophyllus aromaticus*. It grows to about the size of an ordinary cherry-tree, from fifteen to thirty feet in height, and begins to bear fruit between the ages of seven and ten years. It is possessed of considerable longevity, and sometimes lives to be from one hundred to one hundred and thirty years old, although seventy-five years is the average.



NOVELTY PINCUSHION.

It has a large elliptical leaf; that is, oblong with rounded ends. Its flowers, which have a purplish tint, grow on short stalks in those clusters the botanist calls corymbs.

It is very generally known that the clove is an unopened flower-bud. Did you ever notice the resemblance of this spice, with its long body and small, round head, to a little nail? From this resemblance is derived its name, either from the Latin *clavus*, or the French *clou*. Both of these

sources are given. Both words mean nail; also the Spanish *clavo* and Italian *chivo*. The point and body of the nail is formed by the long floral calyx. The head, if you will take pains to dissect it, you will find composed of closed dried petals.

The clove is first of a greenish color. As it grows it becomes pale yellow; when perfectly ripe it is a vivid red, like blood. It is only after it has been dried that it assumes the dark color, almost black, with which we are familiar.

A few trees have had the record of the almost miraculous yield of 1,100 pounds in one year. This, however, is quite phenomenal, the average production being 5 pounds, and 238 pounds to an acre of these trees being about what is usually expected. Every part of this tree is aromatic owing to the presence of a volatile oil, but the clove itself—the fruit—more essentially so.

The nutmeg, which has a wider geographical distribution than the clove, also grows in the Spice islands. It attains a greater height than its neighbor, often reaching to a stature of fifty feet, although sometimes not more than twenty or twenty-five feet. The two trees somewhat resemble each other, and the term of their tenure on life is about the same.

The botanical name of the nutmeg is *Myristica moschata*. From ten to twelve pounds of nutmegs and mace are produced by each tree yearly; but as the trees are planted further apart, the average yield of the acre is less. The nutmegs, while growing, remind one strongly of peaches.

The nutmeg we use as spice is the seed of the fruit which, in growing, resembles a peach. The substance known as mace is a covering called an aril, which adheres very closely to this seed. The outer fruit, which has a groove running down one side, bursts at the proper time and exposes the mace and inclosed nutmeg. When the mace is dry it can be readily removed. Its taste is similar to the seed it contains, only stronger and more pungent.

Medicinally the nutmeg is esteemed as a stimulant for the stomach, and is a preventive of flatulency. It should not, however, be experimented with by those ignorant of its properties, as in large doses it has narcotic peculiarities, and may even produce coma.

The cinamon-tree, which grows in the island of Ceylon, south of India, belongs to the family of laurels, or Daphnales, so called because *Daphne*, when too closely pursued by the amorous Apollo, was changed into a laurel.

The cinnamon-tree is the *Laurus cinnamomum*, and it is the thin inner bark of the tree which is used for spice. The cinnamon-tree, however, has a first cousin, the cassia, whose thicker, more woody and less delicate bark, the wicked "middleman," who stands between Ceylon and the housewife, often substitutes in its place. Because it is cheaper he takes it upon himself to "mix those babies up."

*Eugenia pimenta*, which is cultivated in the West Indies and Jamaica, is planted in rows called "pimento walks." We have all seen the allspice, or pimento berry, times without number. It is small and round, about the size of a pea, and almost black in color. It takes its name from the fancy originating in somebody's mind

an herbaceous perennial. It does not attain a great height; its leaves are long and pointed, and it presunts large spikes of beautiful blossoms. The creeping-stem, or root stock, grows beneath the surface of the soil.

Ginger, as a remedy for various and sundry of those ills which flesh is heir to, is too well known to need further exploitation from us.

MINNIE W. BAINES-MILLER.

ROSE PESTS.

MR. EDITOR:—Last year our rose-bushes were very much troubled with the rose-beetle, or bug, and also with the rose-worm. Please give a remedy.

EDWARD J. VANMARTER.

Mercer county, New Jersey.

ANSWER:—Make a strong suds of home-made soap and water, and to each gallon of the material add a tablespoonful of kerosene-oil, mixing it thoroughly. Apply to the infested plants by means of a good syringe or force-pump. Use this material twice a week, and during the intervals syringe daily with cold water. This treatment will rid the foliage of the "rose-worms," or "slugs," which are the larvæ of an insect, and also of leaf-hopper and aphid. The beetles which eat the flowers can only be eradicated by sprinkling the buds and flowers with Paris green or other poisonous materials, in the manner in which the farmer treats his potato-vines to kill the potato-beetle.

SUGGESTIONS FOR PICKLES AND PRESERVES.

To prevent preserves from sugaring, add a little tartaric acid when cooked.

Preserves need only tying up with several thicknesses of paper, over which put a cloth, but should be looked over occasionally, and if signs of fermentation appear, just heating them again will correct it. Stone jars of small capacity are best for these.

We would recommend all young house-keepers in buying their jars, etc., for canning fruits, to get nothing but glass or stone ware. Everything is better put up in these, as the acids in so many fruits acting upon tin are apt to make them very unwholesome if not positively injurious. Tomatoes, peaches and other canned fruits may then be wrapped with paper to keep the light from them.

In getting vinegar for pickles, always try to get cider vinegar, as the other kinds frequently eat up the pickles entirely or cause them to turn soft. Too strong vinegar should be partly diluted with water.

All pickles should be tightly sealed, to prevent air reaching the vinegar, as this kills it. It should always be poured on hot as it comes to the first scald—never allowing it to boil.

Never put up pickles in anything that has held any kind of grease, and never let them freeze.

If pickles are put up in brine, it should always be strong enough to bear an egg. Use coarse salt, in proportion of a heaping pint of salt to a gallon of water.

The nicest way to put up pickles is to put them in bottles and seal while hot.

To CLARIFY PICKLES.—The scum which rises on the top of pickles can be remedied by putting a slice or two of horse-radish in the jar, which soon sinks to the bottom,

taking all the scum with it, thus leaving the vinegar clear.

HOW TO KEEP PICKLES FROM GETTING SOFT.—To one barrel of pickles, when in brine, add one half bushel of grape leaves. This will keep them sound and firm.

TO SEAL UP CANS OR JARS.—Scald the fruit thoroughly, pour into the cans; have ready three

or four pieces of paper (a thin, tough tea-paper is best); cut about one inch larger around than the top of the can; wet the under side with the white of an egg, press on quickly and put two or three more pieces on top of this; wet the same as the first; tie a string around over these to be sure they are close.

TO FILL JARS WITH HOT FRUIT WITHOUT WARMING THEM.—Place the jar in a bowl of cold water and pour into it one cupful of the boiling fruit. This will heat the jar,

without breaking it, and it must be taken out of the water to finish filling it. Care must be taken not to fill the hot fruit higher than the water on the outside of the jar before removing it, or it will be sure to break. This will answer for filling jelly-glasses also.

LIST OF FRUIT IN PRESERVES.—

7½ lbs. of cherries, } 1 gallon of preserves.  
7½ lbs. of sugar, }  
14 lbs. of blackberries, } 5 quarts of jam.  
14 lbs. of sugar, }

Six quarts of steamed grapes make five and one half pints of juice, which, with five and one half pounds of sugar, make nine tumblers of jelly.

Two quarts of stemmed currants make two pints of juice, added to nearly two pounds of sugar, makethree tumblers of jelly.

PICCALILLI.—

2 dozen large cucumbers, chopped,  
2 quarts small onions, whole,  
1 peck green tomatoes, chopped,  
1 dozen green peppers, chopped,  
1 head cabbage, chopped.

Sprinkle one pint of salt over this, and let it stand over night, then squeeze out very dry. Put in a kettle

1 gallon of vinegar,  
1 pint of brown sugar,  
¼ pound box of Coleman's mustard,  
½ ounce of turmeric-powder,  
½ ounce of cinnamon,  
1 tablespoonful each of allspice, mace, celery seed and a little horse-radish.

Cook the mess slowly two hours, then add two hundred small pickles, just as it is to come off the stove. Add the mustard last, as this thickens it and it is apt to burn.

BOTTLED PICKLES.—Pour boiling water over them and let stand four hours; to every gallon of vinegar take

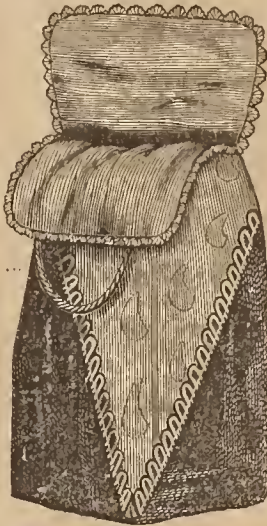
1 teacupful of sugar,  
1 teacupful of salt,  
1 teaspoonful of pulverized alum,  
1 ounce of cinnamon bark,  
¼ of an ounce of whole cloves.

Boil spice and vinegar and pour over the pickles; seal while hot.

CUCUMBER PICKLES.—One hundred green cucumbers about two inches long will fill four glass quart jars. Soak twenty-four hours in rather strong brine. Then pour off the brine and rinse in clear water. To this number of cucumbers use

3 quarts of pure cider vinegar,  
1 cupful of sugar,  
1 ounce of whole cloves,  
1 ounce of stick cinnamon,  
1 ounce of small, black peppers,  
A little horse-radish, sliced, and  
A few small red peppers.

Scald the cucumbers in the vinegar. As soon as the vinegar is scalding hot, dip them out, fill the cans, and then pour the vinegar over them till the can is full. Seal hot.



EVENING BAG.

SPICED CHERRIES.—

9 pounds of fruit,  
4 pounds of sugar,  
1 pint of cider vinegar,  
½ ounce of cinnamou bark,  
½ ounce of whole cloves.

Let the syrup come to a boil before putting in the fruit; cook the fruit until the skins break; then take out the fruit and boil the syrup down until thick; pour over fruit hot.

CURRANT JELLY.—Wash and strip the currants from the stems, and put them in a preserving-kettle; mash them as they get hot and let them boil half an hour; then turn them into a coarse hair sieve or jelly-bag, and let them drip. Wheu through dripping, without squeezing any, measure and pour into the kettle to cook. After it has boiled about ten minutes put in the heated sugar, allowing a pound of sugar to a pint of jelly, and the jelly will set as soon as the sugar is dissolved—about three quarters of an hour.

RHUBARB AND APPLE JELLY.—Cut up your rhubarb and wash it; put on the fire without any water at all. Take good, sour apples and pare and quarter, and cook in a very little water. Strain the juice from both, and put them on the stove to cook for fifteen minutes. Then add the heated sugar, three fourths as much sugar as juice. Boil hard for twenty minutes; turn into glasses and set in the sun, if possible, for half a day. Seal the next day.

PINEAPPLE PRESERVES.—Pare and slice the apples; then weigh them, and to every pound of fruit use a pound of sugar; put a layer of the slices in a jar and cover them with a layer of sugar; and thus proceed until the apples and sugar are used up; let them stand over night, then take the apples out of the syrup, cook the syrup till it thickens, replace the apples and boil fifteen minutes; take the apples out of the syrup and let them cool; then put them in the jars and pour the syrup over them. A few pieces of ginger root boiled in the syrup will improve it.

WATERMELON PRESERVES.—Select one with a thick rind; cut in any shape desired; lay them in strong salt-water for two or three days, then soak them in clear water for twenty-four hours, changing the water frequently; then put them in alum-water for an hour to harden them; to every pound of fruit use a pound of sugar; make a syrup of the sugar and a few small pieces of white ginger root and one lemon, sliced; take out the lemon and root after the syrup has been boiled, and add the watermelon; let it boil until transparent; carefully lift it and put it in the jars, pouring the syrup over it.

CANNING GREEN SWEET CORN.

I will give my recipe for canning green sweet corn. Perhaps some of my sisters would like to know it. Go into the garden and pick as much corn as you wish to can at one time; husk and silk it as for cooking, then cut it off the cob and weigh it, and to every nine pounds of corn add one ounce of tartaric acid dissolved in a little water. Put it over the fire and put enough water in to cover it and boil fifteen or twenty minutes, stirring it pretty thoroughly, so the acid will be well mixed. Can while hot and it will keep. Be sure that the acid as well as the corn is fresh. When you wish to use a can of corn, open it and put it in the frying-pan; salt and pepper to taste, and add a little soda to take away the sour taste of the acid. In every other way, except the soda, prepare it as though it was just freshly cut from the cob, and you will have a dish far superior to dried corn.

E. W. H.

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NIGHT-DRESS SACHET.

that it is an "all-around" spice, uniting in one the separate flavors or cinnamon, cloves and nutmeg.

Ginger (the leaving out of which always makes the pumpkin pie and the ginger-bread more palatable, and the addition of which, figuratively speaking, is an improvement to the human compound) is found in both the East and West Indies, and in Africa and China. It is produced from the rhizome, or creeping-stem, of the *Zingiber*, or *Zingiber officinale*. Ginger is

O SAY, can you see by the candle's dim light,  
What so badly I need for to-morrow's house-cleaning?  
I know if I have that, I'll get through by night!  
Yes it's 'that GOLD DUST POWDER'  
You well know my meaning!

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Our Sunday Afternoon.

WAIT FOR THE MORNING.

Wait for the morning—it will come indeed, As surely as the night has given need; The yearning eyes at last will strain their sight,

No more unanswered by the morning light; No longer will they vainly strive through tears To pierce the darkness of thy doubts and fears, But, hatched in halmy dews and rays of dawn, Will smile with rapture o'er the darkness gone.

Wait for the morning, O thou smitten child, Scorning, scourged, persecuted and reviled, Athirst and famishing, none pitying thee, Crowned with the twisted thorns of agony— No faintest gleam of sunlight through the dense

Infinity of gloom to lead thee thence— Wait thou for morning—it will come, indeed, As surely as the night hath given need.

—James Whitcomb Riley.

THE LANDING OF THE PILGRIMS.

THE corner-stone of the monument of New England's greatness is the landing of the pilgrim fathers. We could never see the reason of this. It would have been a great deal more heroic of them if they had not landed. After a long and unpleasant sea voyage people are generally anxious to get on shore. The shore was there for the pilgrim fathers. There was plenty of it, such as it was. If it didn't suit them, that was their fault, not the shore's. They went there of their own accord. They might just as well have sailed down to New Amsterdam and landed there, in a good harbor. Had they done so they could have grown up among a good, solid people, under liberal laws, and in an atmosphere of genial respectability. But that did not suit them. They wanted to make life generally unpleasant; they wanted to burn witches and stone Quakers. So they went off all by themselves, and of course, they had to take up with the meanest part of the country. No, we have heard too much about the heroism of the pilgrim fathers. They made altogether too much of the simple act of landing. Of course they landed. What would you think of a man who wouldn't get off a ferry-boat when it had got to the other side of the river?

Now if you want real heroism, go down to Castle Garden any steamer day and look at the hardy son of toil, who has been crowded out of the dense population of the effete monarchies of Europe, and has come here with a heart full of hope, and a wife with her arms full of twins and seven infants who can walk, and a mattress and an old grandmother, and a tin plate, and a jug of schnapps and a firm-set belief that he has only to pick up a cobblestone out of the street pavement to be able to batten at his own sweet will on an inexhaustible gold mine. There's where your heroism comes in. You don't see it? No Indians? No, that's so; but there is an able-bodied boarding-house keeper who wants to lure him into a palace of bliss and assay his gripsack. Now Mr B. Biglin gently insinuates himself into his confidence, and wants seventy-five cents to take his trunk three blocks up to Schmitzenheimer's Cosmopolitan hotel. Then there is the gentleman who will change the gold money of the effete monarchies for nice, bright brass bathing-checks and not-good-for-one-dollar advertising greenbacks. Likewise there is the friend from the new arrival's native village, whom the new arrival doesn't remember at all, but who is ecstatically glad to meet a man who speaks the dear old language, and who will take him up-stairs into a back room and show him a pretty game, where he will relieve him of all that is truly dear and precious in his exchequer. Besides these, he encounters the gentleman who will sell him a horse-car conductor's old trip-slip for a ticket to Omaha, and the miscellaneous assemblage of aristocrats who will sell him experience cheaply and in large quantities. Ah, don't talk about your pilgrim fathers of two hundred and fifty years ago! Go to the emigrant of to-day, thou hero-worshiper, consider his perils, and reverence him if he gets through in possession of his skin.—Puck.

THE ISLE OF WOE.

All the lepers found in the Hawaiian group are banished for life to the island of Molokai. From time to time a government mandate is issued requiring all lepers to report themselves to the health officer of their district. He inspects them and reports them to the sheriff, who has the leper removed to the Isle of Woe. The law is binding on rich and poor, native and

foreign, men and women, as the isolation of the few is the only hope of safety for the many. About eight hundred lepers are at present upon the island.

The village has its churches, schools, stores and government offices. The resident superintendent is Mr. Clayton Straun, a white man. After residing for a time at Honolulu he went to Philadelphia. While there the loathsome leprosy declared itself. He immediately returned to the Sandwich islands, that he might end his days on Molokai. Miss Cummings, in her description of this settlement of lepers, thus speaks of one who, though not a leper, has chosen it as his earthly abiding-place. She says:

"One there is who, in pitying love to these outcasts, has voluntarily taken his place for life in their midst. Father Damien, a young Roman Catholic priest, resolved some years ago to devote himself to this work, and following in the Master's steps, seek and strive to save these poor sheep in the wilderness."

It was truly a noble act; for apart from the daily horrors of his surroundings, there must be the ever-present knowledge that he may one day develop symptoms of the deathly doom.

Hitherto that devoted life has been mercifully preserved, and the good young father continues to be a center of brightness and sunshine in that sad colony.

The Protestant congregation is in charge of a native pastor, himself a leper (there are several such on the island), and the poor little children born to such a heritage of woe are taught by leper teachers in two schools.

Latterly, a company of volunteers has been formed, though it is hard to see what pleasure these poor creatures can derive in playing at being soldiers.

The greatest success is the leper band, for the whole community thoroughly enjoy their cheerful music. The choir, too, is excellent, and is led by a young girl with an exquisite voice—truly a nightingale in a dreary prison.

THE LORD'S PROMISES.

The Bible nowhere promises us exemption from trials. It does not assure us that we shall not go into the furnace, nor into the deep waters; but it does promise that the fire shall not consume us and the waters shall not overflow us. In the midst of the trial it shall still be well with us. By our side in the furnace there shall be one who is like the Son of God, and we shall come out without even the smell of fire on our garments. It is not said that Christians shall not have extraordinary trials. Christianity develops manhood; it vastly enlarges the sphere of life. It gives a broader surface across which the winds of adversity may sweep. It gives greater possibilities of enjoyment; and these make greater trials certain. A Christian man is higher and deeper and broader than other men. He is more fully developed in all his capacities both for joy and sorrow. Christ suffered unspeakably more than any other man who ever lived could suffer. He had in himself all the nobleness of man and all the gentleness of woman; he had vaster capacities of suffering than other men possess. Stoical indifference to pain is an evidence of a coarse and brutal nature. To feel, and yet to do and dare, is to be truly noble.

LOST EVERYTHING.

Often we hear it remarked that such a one "has lost everything." And what has he lost? Has he lost his voice, his eyes, his ears, his reason, his understanding, his judgment, his conscience, his will? Oh, none of these; but a man who has "lost everything" will be found on inquiry to have lost some land, which others owned before he was born, and which lies now where it lay before, and is just as good as ever. He will be found to have lost some money, which others had last year, and which was in his possession yesterday, which some one else has to-day, and which some other one will have to-morrow. He has also lost a house; but the house is standing, and people are living in it as comfortably as ever; though he may be in a smaller house, or he may be speedily laid in a narrow house which will afford him shelter when no other house is open for him.

The losses of which men speak do not, after all, seem to be so serious. A little soil, a little shining ore, a little comfort and a little show, pass out of our hands, are transferred to others, as they had previously been transferred to us; and we murmur and complain about our losses. We do not count upon what we have—health, strength,

courage, faith, intelligence, understanding, judgment, conscience, powers of body, faculties of mind. These are things which we may hold fast when we have lost the possessions on which we doted, but yet which form no part of our most valuable treasures.

What shall it profit a man if he gain the whole world and lose himself? And so long as a man has not lost himself, what do these other matters amount to? Let us see that we hold fast our true treasures; that we lay up in heaven that which neither moth nor rust can corrupt, or thieves break through and steal. Let us have the assurance that our possessions are beyond the reach of flood or flame, of moth or rust, of thief or robber—an inheritance incorruptible, undefiled, and that fadeth not away, reserved in heaven and ready to be revealed in the last time.—Christian.

THE SAINTS' INHERITANCE.

God says in Dan. 7:27: "And the kingdom and dominion, and the greatness of the kingdom under the whole heaven, shall be given to the saints of the people of the Most High, whose kingdom is an everlasting kingdom, and all dominions shall serve and obey him." What a picture of encouragement is this to every child of God. Especially so amid the wonderful effective possibilities and activities of Zion. Along the ages, Christians of all names have been assiduously engaged in building up a kingdom for the saints' inheritance. But in no age have the children of God been as active as now. In all lands the gospel trumpet is blown loud and long to add willing subjects to the divine kingdom. The young people's movement is certainly a great factor for accumulating the great possessions of the saints' inheritance when Jesus comes. Our Lord says "the saints shall inherit the earth." Every society, union, leader, president, editor, secretary, pastor, convention, gathering and worker of every sort shall have part in making up that glorious inheritance which our adorable Lord shall give to his children when Jesus makes the new heavens and the new earth.—Young People's Union.

A CHILD'S MEMORY OF ITS MOTHER.

Suppose that a woman, having the ability to do so, were asked to paint her own portrait, and write a complete description of herself, of her mental gifts, characteristics, manners and ways, that in after years her children might from them form an estimate of their mother. Is there any one of us all who would not endeavor to have her pictured face sweet, calm and thoughtful? Who would not make the most of every beauty and soften each defect? Would she not write of her gentleness, truthfulness, and amiability, enlarging, as far as conscience would allow, upon her virtues, and glossing over her faults? Would she omit the narration of scenes in which she had forgotten her dignity under the stress of temper, had been unjust or indifferent.

Now, have you ever thought that in the memories and hearts of our children we are day by day painting our portraits, writing our memoirs? Every mother who indulges in outbursts of temper, in which her face is transformed with anger, may with sorrow and mortification feel that she has placed these scenes on record, in the mind of her child, and surely such a realization would lead her to soften and beautify her harsh words and actions.

BEARING THE CROSS.

Simon Peter saith unto them, "I go a fishing." How natural for man out of sight of Jesus and hard pressed with temptation to give up hope and turn his attention to fishing, or some other secular business, instead of running with patience the race set before him.

Many Christians continue to want to walk by sight instead of by faith. When they are in heaviness on account of manifold temptations, straightway they think they have lost their religion and turn their attention to secular pursuits, when God has called them to work in his vineyard. When the cross becomes heavy, the temptation to get out from under it becomes strong and they feel like laying the cross down and running away from duty. They forget that a crown awaits him who faithfully bears his cross and endures to the end.

A NEW CURE FOR ASTHMA.

Medical science at last reports a positive cure for Asthma in the Kola plant, found on the Congo river, West Africa. So great is their faith in its wonderful curative powers, the Kola Importing Co., 1164 Broadway, New York, are sending out large trial cases of the Kola Compound free to all sufferers from asthma. Send your name and address on postal card, and they will send you a trial case by mail free.

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Said the Owl to himself, "If the moon I could get, whenever I'm dry my throat I could wet; The moon is a quarter—with a quarter I hear; you can purchase five gallons of Hires' Root Beer." A Delicious, Temperance, Thirst-quenching, Health-Giving Drink. Good for any time of year. A 25c. package makes 5 gallons. Be sure and get HIRE'S.

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**Farm Cleanings.**

**CORN.**

**T**o America the world is indebted for the corn-plant, the grandest forage crop known. Aside from its value as stock food, it has a specific value as food for hungry men and women, and as such takes high rank among the food crops of the United States. The fodder, or stover, of corn, properly harvested and cured, has a feeding value equal, if not superior, to timothy hay. In digestive materials, American trials show that 83.3 per cent of the dry matter of corn is digestible, or, including the stover and cobs, that 68 per cent is digestible, while timothy is but 57.1 per cent digestible, or nearly twelve pounds less than corn. Relying upon the above data it would require more than five and a half tons of timothy to be equal to the yield of digestible matter in a crop of corn yielding sixty bushels to the acre.

The corn-plant adapts itself to quite a wide range of latitude. Classed as a subtropical plant, we find it adapting itself in varieties which have been modified by long-continued planting and selection to the rigorous climate of Canada and northern New England, where it ripens to perfection nine out of ten seasons. In point of production of grain to a given area, corn seems to thrive best nearer the northern limits of its greatest attainments. In Maine, New Hampshire and Vermont, the average yield per acre is from thirty-three to thirty-five bushels, leading all the other great agricultural states embraced in other isothermal limits.

Corn is unequaled as a fattening food, and is indispensable in the dairy to the production of the best butter. It may be said to be the foundation food in profitable dairying. And what gives it additional value in this direction is, its relative cost of production is less than with any other food of the same value. As a renovating crop in the rotative course it holds first place, involving less hard labor in its cultivation, while the constitutional function of its broad leaves, like all of its class, turn to account the supplies of plant-food nature affords, and draws less upon the stores the farmer supplies.

It is in the rotation of crops wisely arranged and persistently carried out in the farmer's system, that corn is produced at minimum cost and its valuable characteristics as an ameliorator of the soil are best availed in the preparation of the soil for succeeding grain or root crops, or for a crop of clover or grass.

Objections have been raised against growing corn because of the amount of hard labor involved in its cultivation. Adhering to old methods the objections are measurably valid, but adopting later methods which improved machinery makes possible, these objections are removed.

There is no crop grown of equal value as stock-food that the substitution of machinery for hand labor in its cultivation is possible, and for this reason is due, largely, the fact that corn gives the maximum yield for the minimum amount of tillage cost.

As a soiling crop the corn-plant is unequaled, and a feature in its production which makes it valuable above other forage crops, is the great length of time it can be fed in the green state, for properly cultivated it may form the chief soiling crop from July till frost comes, and then the remainder forms a valuable addition to the forage supply of the farm by filling the silo, a use to which the corn-plant is better adapted than any other grown.

The coarse manure of the cellar and yard is duly appropriated by the corn, as it is a gross feeder. Some good chemical fertilizer applied in the hill or drill gives the plants a quick start and carries them along till the coarse manure has become properly decomposed to be appropriated by the corn roots.

The cheapest fertilizer for corn comes from the farmer's own premises, and the closer all the droppings of the stock are saved, the more valuable does it become. But there is economy in using chemical fertilizers, because the crude manure from the cellar is not appropriated by the plant early in its career.

Trials have shown that the yield of corn is greater in surface manuring—applying to the furrows before the harrow is put on. Ferment the manure in the soil rather than in the cellar, when used for corn.

It depends somewhat upon the use to be made of the crop as to the method of planting. The drill system will give more bulk

for the silo, while the check-row method gives larger ears and sounder corn relatively. If the crop is to be fed, the silo offers advantage to profitable disposal of the crop, which adds materially to the profits. Whichever method is adopted in planting, seed with a variety which is known to mature well before frosts.

Drilled in with rows three and a half feet apart, three kernels to the foot, the crop standing till the ears begin to glaze, will give fifteen to twenty tons of fodder per acre, and preserved in the silo and fed to cows in connection with a small amount of hay and a suitable nitrogenous ration of grain, will be equivalent to five or six tons of timothy or common mixed-grass hay.

The main expense for labor in cultivating the corn crop is in harvesting. Cutting by hand in the field is as yet the most practical way. A machine does not leave it in good condition to gather up. If to be dried for shelled corn, stack it in the field till cured. Depositing at once in the silo from the field, cut to half-inch lengths, seems to be the most economical method. It costs from five to eight cents for each bushel of shelled corn to husk it, and no gain is made to its nutritive properties; shelling and carrying to mill and grinding costs ten cents more, say fifteen cents in all—one fifth of its selling price, or twenty per cent of its value. There is a small loss in the silo, but if finely cut and solidly packed the loss is less.

L. F. ABBOTT.

**WEATHER WISDOM.**

The subject of weather wisdom or weather prognostics is not of recent date. The ancients carefully observed the sky and clouds and actions of birds and beasts.

In the earliest record of all nations we find references on weather phenomenon, and the only way of explanation was by supernatural agencies. But more light is being thrown on this science continually.

Our forefathers noticed the sky, clouds and the movements of animals and plants, so that certain kinds of weather followed certain appearances. These conclusions have been thrown in proverbs and sayings which in many cases are correct, they being explained by the more recent discoveries in weather science.

For many years the subject has been shrouded in mystery; at one time meteorologists believed that by a record of the mean temperature, barometer height, clouds, wind and rainfall, some dependence could be relied upon it. In fact, a great advance was made. Statistics of the rainfall was of great commercial importance; further than that, little was accomplished.

An example from Arbercromby illustrates the inefficiency of this system of statistics, as it was called. Napoleon requested Laplace to make calculations as to when winter set in in Russia. The latter found that on the average it set in during January. Napoleon made his plans accordingly, and his army was lost.

Not until the introduction of daily synoptic charts was there any great advance made which showed the atmospheric pressure, temperature, etc. These charts are constructed by taking the readings of the barometer at a great number of places. The readings are then marked down over their respective places and lines drawn through the places having the same pressure. By noticing several of these charts we find in most cases a low depression, called a cyclone, and a high depression, called an anti-cyclone. The cyclone is always circular in form and moves in an eastern or northeastern direction. The anti-cyclone often, though not always circular, is stationary. The lines drawn through the places of equal barometric height are called isobars, and the intensity of the wind is always dependent on the closeness of these isobars; the only apparent difference between the cyclone and anti-cyclone area is in the intensity or steepness of isobars.

Meteorologists during the last few years are making their studies and workings on the synoptic or isobaric charts.

A weather bureau has been established under the authority of the secretary of agriculture, and all pains are being taken to unveil the curtain that enshrouds weather science, and all endeavors are being made to reach better results for the good of our people. Voluntary observers are in nearly every county of the several states, and their reports are sent to central offices in the state. Daily charts are issued from the several central offices showing the pressures, cyclone and anti-cyclone areas, with a forecast of the weather.

At present a forecast cannot be made for a longer period than twenty-four to thirty-

six hours, and at the most not over a period of two days. But a forecast of but one day is a very great help to the people. The weather bureau is doing much for the people. Life and property are saved. With the many daily newspapers, which all give a forecast of the weather and the uses of cold wave signals and other signals, one is able to prepare for unusual extremes. By the workings of the weather bureau, all people are benefited. There is not a single class of people that does not receive much good from the bureau.

Certainly the farmer receives great benefit from the weather bureau. How many fields of wheat and other grain have been saved from destruction by the knowing of approach of wet weather and the owner obeying the warnings. Surely, the farmer, if any person, should hail its success and wish it God-speed toward its further perfection.

C. W. BURKETT.

**Recent Publications.**

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- Orrville Machine Co., Orrville, Ohio. Low-down threshers and clover-hullers.
- Ripe Fruit Carrier. George Franke, 112-114 S. Eutaw St., Baltimore, Md.
- Poultry Catalogue. Geo. H. Northrup, Raceville, Washington county, N. Y.
- Ertel Improved Victor Incubator and Brooder. George Ertel & Co., Quincy, Ill.
- Complete Guide for Caponizing. George P. Pilling & Son, Philadelphia, Pa.
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COLUMBIAN CONTEST.

CLOSED JULY 1ST.

"Why is the FARM AND FIRESIDE like the Columbian Exposition?" Answer—Because it is the greatest of its kind. No satisfactory answer was received to the above, therefore no prizes can be awarded.

Our Miscellany.

Stranger—"What sort of a climate have you in New York?" Native—"Well, we can hardly be said to have a climate yet. Up to the present we have been having samples under consideration."

Don't fool with Indigestion. Take BEECHAM'S PILLS. Arthur—"Mama, was grandma very cross when she was young?" "No, dear; why?" "Well, I thought maybe that was why God fixed her teeth so they could be taken out."

First world's fair visitor—"Then there are places where you can get twenty-five-cent lunches?" Second world's fair visitor—"Yes; you can get them all 'round here by paying a dollar."

Tailor (meeting friend on the street)—"I thought you said you'd mail me that \$5 bill that you owe me?" Creditor—"I did mean to, but when I went to the post-office to mail it I found that placard on the walls, 'Post no bills.'"

"Papa," said Walter, "I wish you'd buy me a whistle like Georgie's." "What kind is that, Walter?" "It's one with nothing to it but whistle. He makes an O of his mouth and blows the whistle through it."

Mrs. Kerstyle—"I gave you more material to make this dress than I ever used in a garment before, and the skirt is hardly full enough to fit a churn. How does that happen?" Dressmaker (shrugging her shoulders)—"Madame inhaled on having ze sleeves in ze height of ze fashong."

He was going to propose to her, and he preface his proposal with the following conundrum: "Why," he asked, "is your house more notable than the whole city of Chicago?" "Is it so?" "It is." "In what respect?" "Chicago contains only the world's fair, but this house contains the world's fairest."

SHE GOT THERE.

It was the hour of sunset in the United States of America. In front of a picturesque log cabin situated in the state of Tennessee two people sat on a log, one on either end. They were male and female, both young and tender. Neither had ever loved before. He owned a coon dog and a mule, and she could read, write and cipher. "Jen," he said, breaking a long silence. "Yes, Tom." "Any 'skeeters hit you yet?" "Heaps." The sun disappeared behind the Raccoon hills, and twilight fell. Insensibly the gal heaved a long, quivering, tremulous, trembling sigh. Insensibly the man hitched toward her on the log. "Jen, s'posin'?" he queried as he looked straight into the gathering darkness. "S'posin' what, Tom?" she answered as she thumped the life out of a mosquito which was trying to carry her off bodily. But he stuck there, while the darkness grew deeper, and the old man Shepard trotted by on his mule, and an owl in the swamp gave utterance to his lonely cry. Her heart was heating wildly, but a gal critter must wait for a man critter to ask her. Insensibly they hitched in unison toward the center of the log. "Jen, s'posin' yo'r pop was eat up by a b'ar?" "Yes." "And yer mam was ter get the breakhone fever and die?" "Yes." He got stuck agaln. He plucked up a chlp with his naked toes and worked it about in a nervous manner, while the owl whooped it up for the next five minutes for all there was in it. She could hear his heart flip-flopping, and he knew she was red back to her shoulder-blades. Insensibly they drew together. "And s'posin' yo'r hruther Jim should git snake-bit and expire?" he continued as he dropped his voice to a whisper. "Yes, Tom." "And the cabln should burn down?" "Yes." "W-what would yo' do then?" "Rekcon I'd go over to yo'r house." "What fur?" "To ax yo'r mam if—if—"

"No." "Then I'd go over to yo'r house to ax yo'r mam if—if she reckoned I was old nuff to git married!" His arm stole around that gal, and her head fell upon his shoulder. The owl hooted and the 'skeeters bit, but they heard nothing but the whispers of love—felt nothing but that sense of happiness which comes to calves that bite each other's ears for the first time.—N. Y. Sun.

THE SOUND OF A SUNBEAM.

One of the most wonderful discoveries in science that has been made within the last year or two is the fact that a beam of light produces sound. According to Milling a beam of sunlight is thrown through a lens on a glass vessel that contains lamp-black, colored silk or worsted, or other substances. A disk, having slits or openings cut in it, is made to revolve swiftly in this beam of light so as to cut it up, thus making alternate flashes of light and shadow. On putting the ear to the glass vessel strange sounds are heard so long as the flashing beam is falling on the vessel. Recently a more wonderful discovery has been made. A beam of sunlight is caused to pass through a prism so as to produce what is called the solar spectrum, or rainbow. The disk is turned and the colored light of the rainbow is made to break through it. Now place the ear to the vessel containing the silk, wool, or other material. As the colored lights of the spectrum fall upon it, sounds will be given by different parts of the spectrum, and there will be silence in other parts. For instance, if the vessel contains red worsted, and the green light flashes upon it, loud sounds will be given. Only feeble sounds will be heard if the red and blue parts of the rainbow fall upon the vessel, and other colors make no sound at all. Green silk gives sound best in red light. Every kind of material gives more or less sound in different colors, and utters no sound in others.

FAMILY SUFFRAGE.

The new suffrage law just enacted in Belgium contains a provision in which it is distinctly in advance of every other political community except Wyoming. It gives every married man two votes, one for himself and one for his family. This recognition of the rights and interests of the home is something entirely new, and in a country cursed as is Europe, with standing armies and military despotism, would, if generally adopted, greatly promote the interests of peace. The married man, says Bacon, "hath given hostages to fortune." He is made more cautious, conservative and thoughtful by his needs and responsibilities. He is more or less influenced by the opinions, wishes and judgment of his wife. In short, he is commonly spoken of in society as a "family man." And the welfare of the family is the main object for which government exists. Of course, it is clearly unjust to have the wife thus represented by another. She can only be fairly or adequately represented by herself. The Belgian system has a suspicious resemblance to the old odious provision of our national constitution, that slaves should count for two fifths in the general basis of representation. But we may fairly hope that in the case of Belgium, as in our own, the enactment may prove a half-way house to the full recognition of political rights, duties and responsibilities for women.—The Woman's Journal.

A WORD ABOUT BATH SPONGES.

A bath sponge is a satisfactory toilet article only when it is well cared for. If it is put away half cleaned and dripping wet it will soon become offensive, and then its restoration to cleanliness is very difficult. Every time a bath sponge is used it should be washed with soap and warm water, rinsed in cold water and then squeezed, not wrung, vigorously. In the summer it should be hung in the open air, and when possible in the sunshine. In winter it should be dried by artificial heat. A sponge should never be shut in a box, and the best place to keep it is on a hanging earthen tray or in an open basket of wire. A good bathing sponge had rather coarse pores, but is strong and soft in texture. The most expensive sponges, however, are tiny ones, which have the very finest holes and a silken texture. They are used for bathing little children and by surgeons.

OVERWORKING HORSES.

You overwork occasionally, do you not? Perhaps you do it habitually; but whether occasionally or constantly, you know that overwork debilitates and opens the way of the attacks of disease. Thousands of men die because of overwork, says an exchange. Well, what is true of men in this respect is true of the horse. We cannot overwork it without danger. The number of horses that are killed by hard work is very large. Outside of humane considerations altogether, it may be said that a man who kills his horse or injures it usually does a very foolish thing. The excuse for overworking our horses is that the work must be done. There is no "must" about it. If a man kills a hundred-dollar horse in doing a hundred dollars' worth of work, he has made nothing—not a red cent. If he kills such a horse in doing fifty dollars' worth of work, he is just fifty dollars out of pocket. If he would be a little more particular in estimating the results of such sacrifices, he would less often make them.

A GOOD DIGESTION.

"Where does digestion begin?" said a celebrated physician to me the other day; and he added: "Absolutely on the plate, where food is cut into proper morsels; after that between the teeth. And when we think of this, what a horrible notice that was on the lawyer's door: 'Gone to dinner—be back in five minutes.' If we don't take time to chew our food, we become dyspeptic; and if we become dyspeptic we are liable to become wicked. All life looks black to a miserable man, with a stomach in which his food lies like lead. Woe to his companions if they expect good-fellowship from him! Woe to his wife unless she has the womanly intuition that will make her humor him as though he were a cross baby! Man delights him not, nor woman either; nor is he best pleased with himself, though he jealously demands homage from others. A man with a good digestion is more likely to be true and loving and charitable and honorable than one who has ruined his temper and digestion together; and since one of the best assistants to digestion is a good use of the teeth, let us calmly sit down to our dinner as our English friends do, and as we enjoy our meal, rebuff any whispers of wasted time by remembering that if the body is not cared for the mind and soul go wrong; that to eat and sleep and drink and bathe well will not only make us healthier and handsomer, but as a consequence, smarter and better. A good digestion makes a good man, and though there may be demons who chew their food well, there never was an angel who did not masticate his.—New York Ledger.

METALLIC LATH.

The introduction of metallic laths has become so growing a feature in building operations as to lead to the mechanical perfection of the article and its production on the most extensive scale, with, however, the greatest degree of simplicity. It is formed from a slightly corrugated steel sheet, making in this two parallel cuts at regular distances apart the entire length, which is forced outward by pressure applied on one side, thus forming over the surface of the sheet a series of loops; the cutting and expanding are done instantaneously by specially designed machinery. The finished lath is very easily handled and rapidly placed; the mortar can be applied to either side as may be convenient, and the loops upon the sheets serve as a thorough key to the plaster, holding it strongly in place, and with the minimum amount of material. It is claimed for this substitute that it is fire and vermin proof; a workman can put on about three times as much of this lath in a day as of wood laths; that it forms a stronger wall than the wood, and one less liable to crack from settling of walls; that the plaster is much less liable to fall off from this lath than from wood, because it is so thoroughly keyed by loops; that a given amount of plaster will cover nearly twice as much surface on this lath as on the wood, because the surface of the steel lath to be covered is even and unyielding, and the openings uniform and sufficient to guarantee a stronger key, will not let waste mortar fall off from the back of the lath.—N. Y. Sun.

FOOD PRICES IN EUROPEAN CITIES.

A commercial return has just been issued in London, showing the average retail price per pound avoirdupois of various articles of domestic consumption, medium qualities, in some of the principal cities of Europe during the last year. The cities selected are Paris, Lille, Berlin, Frankfort-on-the-Main, Hamburg, Vienna, Buda-Pesth, Prague, Rome, Florence and Brussels. The prices of prime beef varied very much. In Prague it could be obtained for 14 cents a pound, in Vienna for 16 cents, in Rome and Buda-Pesth for 17 cents, while in Paris the price fluctuated between 24

cents and 32 cents, and in Lille as much as 35 cents had to be paid. Flour ranged from 2 cents in Buda-Pesth to 5 cents in Paris, Frankfort and Florence. It is curious to notice that while in Lille flour can be purchased for 4½ cents a pound and white household bread costs 3½ cents, in Berlin this was exactly reversed, bread costing 4½ cents and flour being 1 cent cheaper. Potatoes were under 2 cents a pound in all the cities except Hamburg. Rice ranged from 2½ cents (in Brussels) to 10 cents. Sugar, "good white lump, cracked or sawed," from 7½ to 5 cents (in Rome and Florence), and coffee (Brazil or plantation, roasted and ground, without chicory or other coffee substitute), from 32½ cents in Berlin to 60 cents fresh roasted in Paris. In Brussels coffee from the Dutch colonies can be obtained for 29½ cents a pound.

A HOME THRUST.

Those two boys never did like each other very well, and when they were seen talking together in the school-yard, a crowd gathered around in expectation of a lively time. "Hello," said boy No. 1, "got yer hair cut." "S'pose I have. Is it any of your business?" "Bet I can guess who cut it, in two guesses." "Go on. I don't want no tronble with you." "Yer father cut it." "Naw he didn't. Thought yer was smart an' got fooled, didn't yer?" "Well, I've got another guess yet. 'Twas yer mother that cut it." And then the group that had gathered about saw the excitement that they had come after.—Washington Star.

DIRECT ROUTE WEST.

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Advertisement for a watch. "A fine 14k gold plated watch to every reader of this paper. Cut this out and send it to us with your full name and address and we will send you one of these elegant, richly jeweled, gold finished watches by express for examination, and if you think it is equal in appearance to any \$25.00 gold watch, pay our sample price, \$15.00, and it is yours. We send with the watch our guarantee that you can return it at any time within one year if not satisfactory, and if you sell or cause the sale of it we will give you One Free. Write at once, as we shall send out samples for 60 days only. THE NATIONAL WATCH & IMPORTING CO., 334 Dearborn St., Chicago, Illinois. Mention this paper when you write."

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**Selections.**

**GROWING OLD.**

**I.**

What is it to grow old?  
Is it to lose the glory of the form,  
The luster of the eye?  
Is it for beauty to forego her wreath?  
Yes, but not this alone.

**II.**

Is it to feel our strength—  
Not our bloom only, but our strength—decay?  
Is it to feel each limb  
Grow stiffer, every function less exact,  
Each nerve more loosely strung?

**III.**

Yes, this, and more; but not,  
Ah! 'tis not what in youth we dreamed  
'twould be.  
'Tis not to have our life  
Mellowed and soften'd as with sunset glow,  
A golden day's decline.

**IV.**

'Tis not to see the world  
As from a height, with rapt prophetic eyes,  
And heart profoundly stirred;  
And weep and feel the fullness of the past,  
The years that are no more.

**V.**

It is to spend long days  
And not once feel that we were ever young;  
It is to add, immured  
In the hot prison of the present, month  
To month with weary pain.

**VI.**

It is to suffer this,  
And feel but half, and feebly, what we feel.  
Deep in our hidden heart  
Festers the dull remembrance of a change,  
But no emotion—none.

**VII.**

It is—last stage of all—  
When we are frozen up within, and quite  
The phantom of ourselves,  
To hear the world applaud the hollow ghost,  
Which flamed the living man.

—*Mathew Arnold.*

**SUMMER BEDROOM FURNISHING.**

**A**t this season of the year, the *Tribune* remarks, housekeepers are removing the heavier fixtures and draperies of the winter, and freshening up their rooms with light, airy hangings and other arrangements suitable for the summer season, and it makes the following suggestions with regard to the hot weather furnishing of bedrooms:

The daintiest bedrooms are now furnished with light woods, such as birch or maple, as well as with enameled furniture. Two pieces, a bedstead and dressing bureau, of hardwood may now be purchased at twenty-five dollars. At any lower price, the quality cannot be recommended. The rest of the furniture is finished out with odd pieces in bamboo, rattan, reedwork, or in some wood of the same kind as the furniture, but in a varying pattern. Very pretty window-seats or ottomans may be constructed at home of boxes covered with chintz, with hinge-covers, so that they may be used as receptacles for stockings or other clothing.

In spite of all the fashionable faucies in colored counterpanes and upholstered beds, the great majority of neat housekeepers still prefer the white bed with its dainty counterpane and pretty pillow-shams of linen or lawn. Skilful needlewomen sometimes embroider counterpanes in colored silks or wools on a background of creamy bolton sheeting. In this case the colors should have a touch of medieval quaintness about them, and the pattern should be in conventional design rather than in realistic flower pattern. One of the prettiest materials for draperies at the window is a cheese-cloth printed with flowerstripes in color, which should not cost over fifteen or twenty cents a yard. Figured Swiss muslins, scattered with dots, little crescents, fleur-de-lis or other small designs, with simple ruffles of plain muslin on the edge, make very pretty window-hangings, and are in special demand this season.

A tasteful bureau-cover may be made of the same muslin, with a border and perhaps an insertion of inexpensive lace to trim it. It should be laid over a linen of white or color, but in case color should be used, it should be some material which will not run when a spot of water is spilled on the muslin and stain it. There may be two mats made of the same muslin, and a tiny pincushion-cover.

The fancy for bedrooms in one color still continues. A number of red rooms have been furnished this season, though pale yellow or light blue is more suitable for the predominant color of a summer room.

**WAGES IN CHINA.**

In China, the artist in his business or profession obtains no higher rewards than the ordinary craftsman. There appears to be a dead level for all who work with hand or finger. A master workman in any of the trades in China gets three dollars per week, or one hundred and fifty-six dollars per annum. But the workmen only get half that remuneration; one dollar and fifty cents per week, or seventy-eight dollars per annum, is the average rate, and it is not every workman who can obtain that. Youngsters and women get fifty cents per week, or twenty-six dollars per annum. It will be observed that these are the wages paid in the higher walks of art and mechanics. There is only one class of operatives who are more handsomely rewarded. Gold and silversmiths do a little better. The silk reeler or spinner sometimes gets from one to two dollars per day, because the silk has to be reeled off the cocoons in a given time, and as a consequence, the work has to be prosecuted day and night.

The expenses of living are light, in the case of a master being about one hundred and twenty dollars a year, while a workman spends but sixty-five dollars. This includes clothing. The master generally lives at the workshop, where he has, perhaps, two rooms beside a place to cook in. The household furniture may be estimated at from twenty to thirty dollars. The ordinary workman, if married, will share a small house with a friend, and occupy one room and have access to the kitchen. He may live with his parents, in which case his earnings go to the common fund. Under such circumstances, ten to fifteen dollars will cover the value of the household furniture. If a Chinaman is a bachelor—as he often is, by the way—he will sleep at his employer's for a consideration, or stay with a friend; in either case his whole inventory consists of a box with his clothes and his bedding. The laborer, or farmhand, is even worse off. The farm laborer, during harvest-time, gets, beside his meals—worth about ten cents—from ten to fifteen cents a day, or from seventy cents to one dollar and five cents per week. He can be hired by the month for from one dollar and fifty cents to two dollars. If he gets permanent employment he is willing to accept twelve dollars per annum, with board and lodging. If he works for shorter terms, fifty cents a month will suffice for house rent, and two dollars per annum will keep his wardrobe in repair. But there is a grade below these free laborers, known as coolies, who are often glad to work for five cents a day.

**ARE THE OCEANS DRYING UP?**

Sir Isaac Newton surmises, although he could give no reason for the conclusion he had reached, that in the course of time the earth would become perfectly dry. Others, most notably De Verne, Hamilton (Prof. A. L.) and the younger Lysander, all believed that eventually the earth would become as dry as the proverbial chip. Even in this day and age the theory has many adherents. At a recent meeting of the French geological society M. Transchold, of Moscow, Russia, read a paper entitled "Non-invariability of the Level of the Ocean." It terminates with the following curious and interesting conclusions:

1. In proportion as certain parts of the earth's crust rise from the bottom of the sea above its level, the latter must be lowered.

2. The surfaces of nearly all the continents and islands have at one time formed portions of the ocean's floor. They have risen from the water partly because of the retreat of the waters.

3. As continents are formed, one part of the waters of the seas is transported to them in the form of lakes, rivers, eternal snows, glaciers and organized substances. Owing to these actions, the waters of the oceans have been constantly diminishing and their levels lowered correspondingly.

4. In proportion as the earth cools down, ice accumulates near the poles and on tops of mountains; water is taken more deeply into the surface of the terrestrial crust, the formation of hydrated minerals being manifested everywhere.

The result of these conclusions is that since all the water that ever existed may still exist in the form of perpetual ice, snow, hydrated minerals, etc., the waters of all oceans have been gradually disappearing, and that the lowering of the oceans is going on even at the present day, and faster, perhaps, than ever before.

**A ROYAL PORTIERE.**

Mrs. John W. Foster, wife of the late secretary of state, has just hung in her drawing-room a truly royal piece of drapery. Probably there isn't another like it in the world outside of China and the emperor's palace. It is about eight feet long by five feet wide, and was originally made for the wedding of the emperor of China, three years ago. The material is superb satin, thick as a plank, and of the royal yellow shade. The embroidery is the work of the most skilled needleworkers. The design begins at the lower left-hand corner, where the empress, in the shape of a most gorgeous peacock, is executing a *pas soul* on rosebushes bearing roses that would make a florist green with envy. There is a coy,

blushing expression on the face of the peacock, which is supposed to be particularly gratified because the young emperor, in the guise of a fierce-looking dragon, in the upper right hand, is swooping down on her to carry her off to reign with him in his palace. The embroidery is complicated and beautiful, and to the American eye shows not the slightest flaw. It is difficult to believe that the whole piece of work was solemnly condemned because some of the emperor's experts were able to detect an imperfection in it. This design belongs exclusively to his celestial highness, the young emperor of China, and the penalty would be something horrible if it were found hanging anywhere in China outside of the royal palace.—*Wives and Daughters.*

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Smiles.

TO JULIA.

Fair Julia! thou red rose of girls,
Attend my humble cry;
In pity hasten to my side,
Pray, dear, don't pass me by!

-Puck.

MRS. WASP AND MRS. BEE.

Said Mrs. Wasp to Mrs. Bee:
"Will you a favor do me?
There's something I can't understand;
Please, ma'am, explain it to me.

ODE TO THE HEN.

Of robin and bluebird and linnet spring poets
write page after page; their praises are
sounded each minute by prophet, soothsayer
and sage; but not since the stars sang to-
gether, not since the creation of men, has
any one drawn a goose feather in praise of a
patient old hen.

-Nebraska State Journal.

THE DEVIL.

Men don't believe in a devil now, as their
fathers used to do;
They've forced the door of the broadest creed
to let his majesty through.

A POTENT ELIXIR.

A physician practicing in the South, driving
over one of the country roads, came across an
old colored man whose mule had balked, and
whose efforts to make the animal stir had
proved useless.

"What's the matter, uncle?" asked the
doctor.
"Dis yer mule am balked, sah, an' nothin'
won't start him. I'll gib a dollah to make um
start so I might get um home."

gave a bray that woke the echoes for miles
around, and started down the road on a gallop
such as he had never shown before. The as-
tonished darkey started off after the mule as
fast as his legs would carry him. Ten minutes
later the physician caught up with the darkey,
who, all out of breath, was sitting on the road-
side. The mule was nowhere to be seen.

"Massa," said the old darkey, before the
physician could get a chance to speak, "how
much was that stuff worth that you stuck in
my mule?"

PREMATURE TOMMY.

A number of persons were invited to a social
gathering at the mansion of Mr. Shoddy
Upstart on Harlem avenue. Tommy, the
hopeful son of the family, was dressed up in
his best bib and tucker. Suddenly Mrs. Up-
start cried out excitedly:

OVERLOOKED.

Mrs. Strongmind (about to start to the expo-
sition grounds)—"Let me see, here are the
wraps, here's the lunch-basket, here's the
opera-glass, and here's the bundle of umbrellas.
I guess we've got everything, and yet—child-
ren, we haven't forgotten anything, have we?"

IN PLAIN PROSE.

A call for particulars is death to poetry, but
is not always to be regretted, nevertheless.
Young reporter—"The storm king hurled
his torn and tumbling torrents over the ruins
of the broken and dismembered edifice."

FAMILIAR FACES.

Jones (to Smith)—"Yes, indeed, we are giv-
ing the town a regular old boom. Didn't you
see my picture in the paper I sent you?"
Smith—"I saw a portrait, but didn't recog-
nize it as yours. It looked too thin for a
catarrh cure, and not bald enough for a shoe-
man, so I put you down as a disappointed
Georgia office-seeker."

A MISAPPLIED GIFT.

Kathleen—"Yez gev me this bottle o'—phat's
th' nem av it?—jockey-club this mar-rnin'."
Mrs. Rochelle—"I did. Don't you like it?"
Kathleen—"Oid do not, ma'am. Oit tuk about
four fingers av it wid sugar an' hot wather, an'
it's lift a taste in me mouth wud shpoil eggs!"

POOR PICKINGS.

Carrie News—"Have you noticed the change
that's come over Mr. Van Dudell lately?
Something has been preying on his mind for
the last two weeks."
May Cutting—"It surely must be starved by
this time, whatever it is."

CAPITAL.

May—"Do you spell 'lord' with a capital,
mama?"
Mama—"Well, I never saw one with any
capital yet, unless he married it."

ODDS AND ENDS.

When in a hurry profanity can be avoided
by moistening the Columbian postage-stamp
with a whitewash brush.—Free Press.
"Such this is Simpson's new house; he told me
that it was built on very high ground."
"Christopher Columbus, it is! He paid one
hundred dollars a foot for it."
Sign painter—"Now, Missus Johnsing, what
does you want on dis yer sign?" Missus
Johnsing (after a moment of deep thought)—
"I guess 'Goin' Out Scrubbln' Done in Here'
will do."

As William bent over her fair face he whis-
pered, "Darling, if I should ask you in French
if I might kiss you, what would you answer?"
She, summoning her scanty knowledge of
French, replied: "Billet doux?"
A Boston Sunday-school class had a new
teacher not long ago. "Where is our teacher?"
asked one of the boys. "She is gone to Ber-
muda," was the new-comer's reply. "And
where is that?" "Why, don't you know? It
is where the onions come from." "Whew,
what a breath she will have," retorted the
urchin, undismayed.

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Gleanings.

OF INTEREST TO WOMEN.

THE cape is decidedly the most popular wrap. Some of the now capes are pretty and stylish, but many of them are simply absurd. The latter class have enormous butterfly wings, scallops, and pointed platings, and double ruchings, ruffles and trimmed collars of various sorts, until there is absolutely more material about the shoulders than in all the rest of the garment.

A handsome imported cape, simple but exceedingly stylish, was made of tan-colored cloth, lined with changeable satin drench in blue and ecru, and trimmed with four alternate rows of gold braid about five eighths of an inch wide, and tan-colored braid, not over one fourth of an inch wide.

To make a cape of the sort just described, take a square of very light-weight cloth, lay it on the floor and fasten the exact middle of it firmly to the floor by means of a strong pin. Take a piece of cord that will reach from the edge of the cloth to the middle on a straight line, tie one end of it to the pin and the other end to a piece of chalk.

In trimming a circular cape with braid, always run a fine, strong silk thread through the upper edge of the braid and draw it in just enough to make it fit smoothly to the shape of the cape, before basting it on. The cape between the rows may be a quarter of an inch, or the width of the braid.

NEATNESS IS NECESSARY TO PRETTINESS.

Neatness is not only a good thing for a girl, but it is a very important thing. Girls all wish to look well, and it is expected of them to look pretty. The intricacies of their dress and the variety of colors worn make it imperative there be no appearance of neglect. The want of a hook or a button, the drop of the underskirt, or the soil of garment or skin are sufficient to mar any amount of native prettiness.

THE ONLY WOMAN LAWYER IN JAPAN.

Mme. Tel Sono enjoys the distinction of being the first and only woman lawyer in Japan. While engaged in her profession she had many opportunities of discovering the needs of her countrywomen, and with a view to founding a Christian training school for women in her native town, she spent some time in America studying the customs of the country, whose women, to her mind, were on an equality with men.

THE BEGGARS OF MEXICO.

Chief among the many puzzling questions with which my childish mind whiled away the weary half hour of a Sunday morning sermon, was the existence of beggars in Bible days. I pictured Palestine to myself as a land of temples, tombs and gardens, inhabited by beggars and Pharisees. Born and reared in the prosperous West, poverty such as the scriptural tales dimly suggested was to me a thing as vague as the hell of the same records, a fairy tale far more unreal than the sleeping-palace or the caves of Aladdin.

To the casual observer Mexican poverty is extremely picturesque. It is not an imitation of respectability such as the humblest American will attempt, but it is humanity in rags and nakedness, too often in sores, almost always in dirt. Begging is a trade, the occupation in the arid portion of all the poorer population. Beggars throng the railroad stations at the interior towns, and a motley array it is. They are of all sexes, the lame, the halt and the blind. Babies in arms holding out dirty little hands for a "centavo," old women, young women, healthy little boys, crippled grandfathers, all whining to the same tune in their mongrel Spanish, "For the love of God, Senorito, give me a cent."

Give them cents! I pondered them out upon them. Never had a copper seemed of so much value. I luxuriated in their delight. I bought out the porter, the news-dealer and the conductor to satisfy the want that never could be satisfied; for there is a friendly feeling among these unfortunates, and when they find one who will give, they spread the glad tidings among all their class, and indeed I suspected them of having discovered some peculiar way of telegraphing the information to the next station, so besieged was I for charity. Very picturesque were they,

seen from the car window in the soft gloom of the southern night, their dark eyes gleaming like stars under their quaint hat or still more primitive head-dress, their white teeth glittering as the musical Spanish rippled forth in compliments calculated to appeal to the generosity of the senorita, whose seemed to them a small-sized providence. In the cruel glare of the sun, defects became evident, and one saw the coarseness in the squalor and dirt, still never did they cease to be poetic. They harmonized so perfectly with the background of cloudless sky, antique buildings and tropical verdure. There was a beauty in their very ugliness which was a plea for their existence; and in remembering the pleasant journey of my life, I shall always have a very tender recollection of the beggars of Mexico.

I met some few stragglers at Saltillo, more at Catorco; at San Luis Potosi they were absent; but late that evening at a place, the name of which I have forgotten, they swarmed in families, and became as excited in receiving as I in giving. One girl of about ten years amused the people in the sleeper, who had come to the platform to see the fun, by crying in Spanish, her hand already full of coppers, "Child, child, give me a cent." Even when the train started they ran along by its side, talking rapidly in a jargon of mixed Indian and Spanish. Still, if one does not choose to give, these people will not prove annoying, as they seldom ask charity a second time where they have seen it once refused. Mexican politeness penetrates even to the scum.—Edith M. Day, in Lewis & Dryden's Railway and Marine Gazette.

AN INVALID-ROOM.

In building your new house, an isolated invalid-chamber should be provided, if possible; though sickness is a guest unbidden and unwelcome, provision must be made for his appearance sometimes. The sick-room should have an outside door, and be so situated that it can be cut off from direct

communication with other parts of the honso when there is danger of contagion. It should be remote from the living-rooms, that the noise of the household machinery may not disturb the ears of the sensitive invalid. A hardwood floor, hard-finished walls, and plain, simple furniture which can be easily disinfected, are among its necessary adjuncts; so also are abundance of fresh air and sunshine, two of nature's best disinfectants and curative agents.—Good Health.

THUNDER DOES NOT SOUR MILK.

Science has disproved the rural belief that thunder sours milk. It is now known that the souring results from a fungus-growth, and that this fungus is peculiarly fatal to nursing children. The old-time rural belief was that the concussion from thunder acted mechanically upon the milk, and first soured and then solidified it. The theory is a plausible one, easily derived from observing one set of facts without knowing about the existence of others more important to the situation. It happens that milk does sour during or just after thunder-storms, because the atmospheric conditions then prevailing are usually of a kind favorable to the rapid development of the fungus growth that sours milk.—New York Sun.

A KITCHEN "TROUSSEAU."

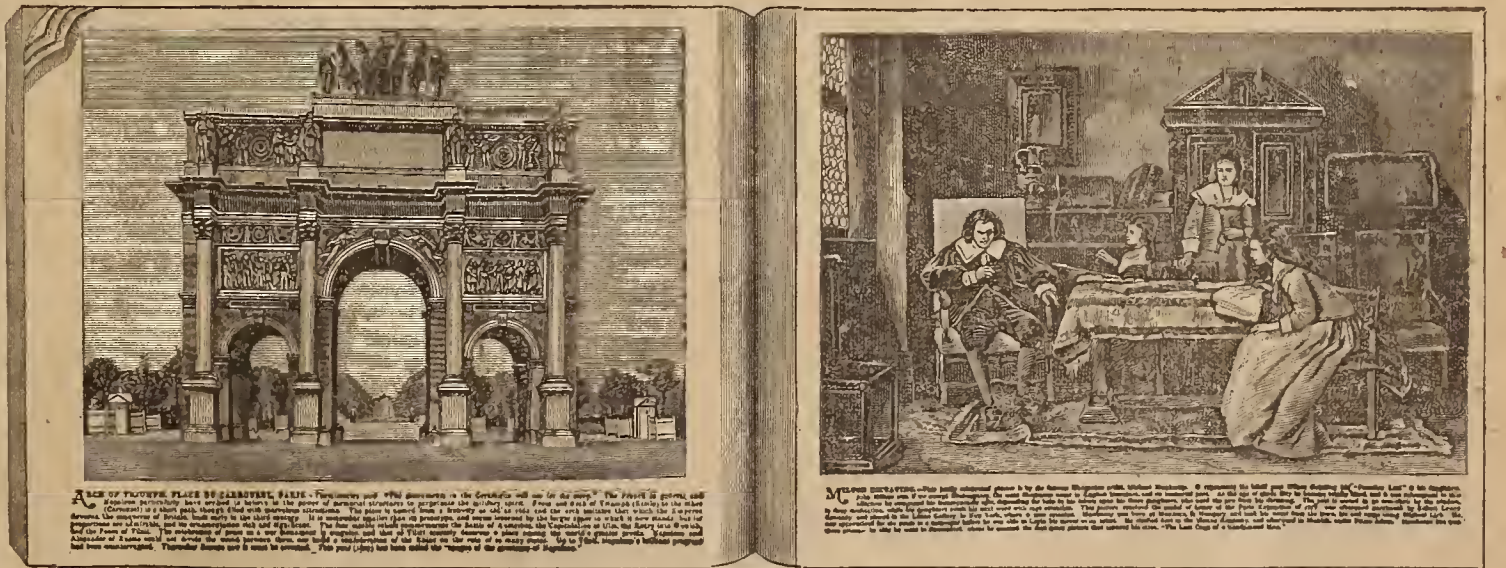
A kitchen "trousseau" is sold by some dealers. The pieces are packed in a trunk and left with the new housekeeper. One of sixty-eight pieces consists of a jelly-mold, tea-pot, coffee-biggan, popper-box, flour-dredge, two covered saucepans, preserve-kettle, wash-basin, colander, milk-pan in three sizes, pudding-pan, gridiron, spout-strainer, gravy-strainer, biscuit-pans, scoop, two-prong fork, paste-jagger, cake-turner, flat skimmer, ladle, two dippers, oblong pan, fry-pan, tea-tray, crumb-pan and brush, dust-pan, coal-shovel, tea-kettle, dish-pan, basting-spoons, teaspoons, table-spoons, forks, cake-cutters, pie-plates, six of each, and a flour-sieve. The list is complete, but it does not seem to have one unnecessary article.

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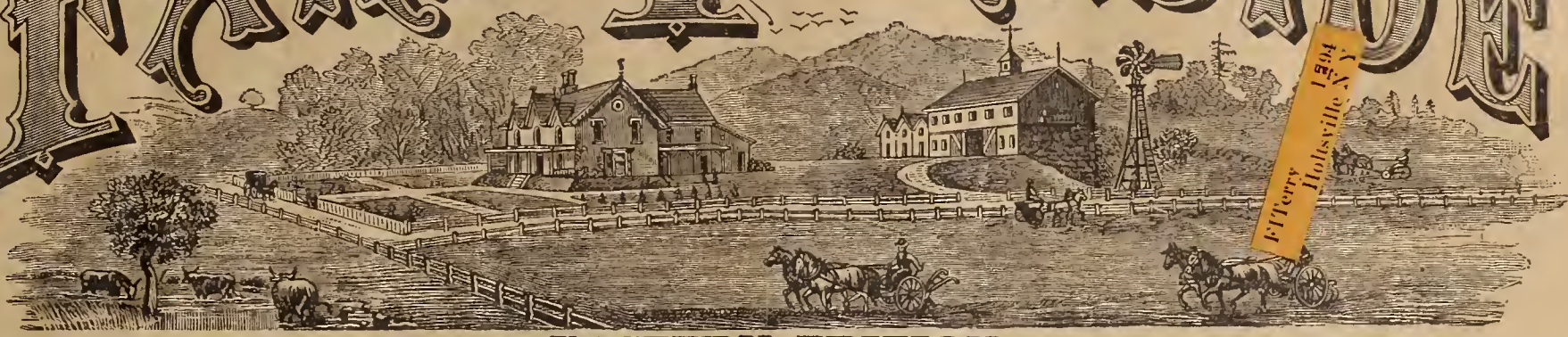
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# FARM & FIRESIDE



EASTERN EDITION.

VOL. XVI. NO. 21.

AUGUST 1, 1893.

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## Current Comment.

**T**HE deputy tax-collector of San Bernardino county, California, sent us the following letter on the subject of taxation:

I see you are catching onto some new scheme to equalize the burdens of taxation. I have not seen a text of the proposed amendment to the Ohio constitution, but if you adopt an amendment by which land-owners will be relieved from paying seven eighths of the taxes, as they now do, a great blessing will be conferred on the people of your great commonwealth.

Having resided in Iowa over thirty years, four years of which time I was county treasurer of Floyd county, I am familiar with the entire revenue system of that state. I am now, and always was, of the opinion that Iowa was very near to the Henry George system, the adoption of which would not be noticed by either the money-louner or the agriculturist, as the former escapes largely from his proportion, while the latter has from the first paid far in excess of his share of taxes.

In this fair land of sunshine and of flowers equity more nearly prevails. The money-louner, who have, as a rule, very poor memories when the assessor is taking a list of their possessions, are assisted by the assessors. The assessor is furnished with an abstract of all mortgages recorded during the fiscal year, and as he makes up the tax roll, he assesses John Smith with his land or lots at their assessed value, which, say, is \$5,000. The assessor then turns to John Smith and finds he owes \$4,500 on his property, secured by mortgage to J. Moneyloaner, Esq. The tax rate is levied on Mr. Smith's property for \$500, and Mr. J. Moneyloaner pays on his mortgage interest of \$4,500. I ask, is there anything wrong in this principle? If the mortgagor loses his property, then he has only paid on his interest in equity, and the mortgagee has paid on his equitable interest.

This system, if adopted, would certainly relieve the land-owner from paying on an interest he only owed contingently. If every man who owns property, either personal or real, throughout the United States, should render a true statement of it to the assessor, I will guarantee the land and lot owner would pay not to exceed half the sum he now pays. To illustrate, the German Savings and Loan Society, of San Francisco, paid into the tax-collector's office of San Bernardino county, for state and county taxes, \$17,600. It also paid into our municipal corporation \$5,400. Have you a concern that gives in assessable monies and credits, sufficient so they pay \$23,000 tax on property it owns jointly with the farmers and merchants? This is only one instance. I could name many more that pay from \$1,000 to \$12,000 taxes into our county treasury, that would not pay a cent if they had the same amount loaned out in the eastern states.

The conscientious money-loaner should by all means support such a measure, because he, like the land-owner, by reason of his forgetful neighbor, has to pay more than his proportion. I often think of what a taxpayer said to me a few days since when paying on his mortgages. It was, "Damn this mortgage law; a defective memory don't count against it."

Let me say that if Ohio has an amendment before her people that will correct the abuses so many years endured, let every fair-minded man cast his vote for its adoption, and then let every state in this grand old Union follow as quickly as possible.

The burden of double taxation rests on every holder of mortgaged property in Ohio. In the foregoing is clearly described the working of the California law by which this double taxation is avoided. It is one method by which this can be done.

In exact equity each should pay tax on property actually his own. The California mortgagee does not pay a double tax, but he may, indirectly through a higher rate of interest, be really paying all the tax on the property he holds. Possibly the law goes as far toward equity as a law can go under the circumstances. It is a great gain to borrowers to be relieved from unjust double taxation. Until some such amendment as proposed is adopted, Ohio mortgagees must struggle along under unjust tax laws. Ohio voters have an opportunity next fall for correcting a long-endured wrong.

**I**T is not a safe thing to predict future prices of any farm crop, or to advise producers to sell or hold. But at this time it appears almost certain that wheat cannot fall lower, and that it will advance in price. The *St. Louis Journal of Agriculture* says that the best authorities agree that the world's wheat crop this year will be short at least 100,000,000 bushels. The American crop for this year is estimated at about 383,000,000 bushels, which, with the surplus carried over from last year, will make less than 450,000,000 bushels. About 370,000,000 bushels will be required at home, leaving less than 80,000,000 bushels for export.

In view of this the *Journal* does not hesitate to say that the time has come when American farmers should not sell a bushel of wheat at present prices, especially since it is worth more to feed it to stock.

From the crop report of the department of agriculture *Bradstreet's* calculates that there will be available for export, from July 1, 1893, to June 30, 1894, only 100,000,000 bushels or less. And it says that the meaning of such a limited supply for export may be the better appreciated when it is recalled that we exported about 190,000,000 bushels last year and 225,000,000 the preceding year. But it also says that it may be asserted without fear of successful contravention that if the grain trade either here or abroad put any faith in the statement that the United States is to have only 100,000,000 bushels or less of wheat to export this year, wheat would sell for future delivery fifty cents per bushel higher than it does.

Taking into account the admitted underestimates of the wheat crops of 1891 and 1892, *Bradstreet's* claims that the total indicated domestic wheat crop year will not fall far short of 450,000,000 bushels, and that the probable total wheat available for export this cereal year is fully 150,000,000 bushels, or more than we have shipped abroad in a like period, with three exceptions.

To these two views of the wheat situation we believe it safe to add that present low prices are partly due to the unsettled financial condition of the country, that there is a marked disposition on the part of producers not to accept current prices, and that much better prices may reasonably be expected before the crop year ends.

**M**R. JENS NEILSEN, the inventor of the Alexandra cream-separator, has on exhibition at the world's fair a new milking-machine that promises to become one of the most valuable implements used in the dairy. It is shown to dairymen on its merits, as practical tests are given every day. The machine does not make use of milking-tubes or any suction apparatus, but is constructed on an entirely different principle. The operation of the machine is described by the inventor as follows:

"In this machine, all four teats are milked simultaneously by two pairs of elastic and feathering roller segments, having rocking, approaching and receding movements. The teats are squeezed from the upper ends, or roots, down to the bottom. When one pair of the rocking segments approach each other, squeezing the two teats on the right side of the udder, the other pair of segments, on the left side, recede from each other, and vice versa. The operator turns a handle, situated an arm's length from the right side of the cow, and connected with the main shaft by a flat link chain. The machine rests in a self-adjusting frame, suspended on the cow, and is not affected by any movements the cow may make during the milking. The machine is put in place in a few seconds and removed simply by a turn of the hand. The milk flows through a funnel into the milk-can, and the operator is thus able to see when the cow is milked clean; that is, when no more milk flows."

**T**HE department of agriculture, in the July crop report, states that it has received many requests—some direct, some through our consuls abroad, and some through foreign legations in Washington—for information in regard to this year's forage crops in the United States. These communications refer to the great shortage of hay and forage crops in Europe, especially in France, and give evidence that there will be a very large foreign demand at good prices for baled hay. It also states that hay is selling in England at from \$45 to \$50 a ton. In France there is such a scarcity of hay and forage crops that many cattle have had to be slaughtered, and it seems probable that there will soon be an increased foreign demand for American meats in addition to the present demand for American hay.

The American hay crop suitable for baling and export is not an unusually great one, but a large part of it can be made available for that purpose. Every year an immense amount of forage goes to waste in this country. Good, bright corn fodder is excellent food for cattle and horses. Let it be saved and substituted for the grades of hay suitable for export. New England farmers traveling westward express amazement at the enormous waste of our coarser but good forage crops. Let them be saved, and let the export hay bring back some of that gold we sent abroad a few months ago.

**I**T appears, after all, that Congress understood public opinion on the Sunday opening question better than the local directory of the world's fair. Congress, heeding the thousands of petitions presented to it, made the appropriation of two and a half million dollars to the Columbian exposition on condition that it should not be opened on Sunday. The local directory, assuming that the gate receipts would be largely increased by an enormous attendance of workmen with their families

on that day, opened the gates on Sunday. Their experiment demonstrated that the people are decidedly opposed to a Sunday exposition, and decidedly in favor of a day of rest from ordinary labor. The Sunday attendance, never nearly so large as anticipated by the directory, dwindled from week to week until there were only about three visitors to each laborer or attendant employed on the grounds.

Sunday opening turned out to be a financial failure. Almost unanimously the directory then decided to keep the gates of the fair closed on Sunday. This action has called forth the approval of the people. Public opinion is now unanimous in desire and determination to make the weekly attendance so large that the exposition may be as great a financial success as it is in every other respect. As to the exposition itself, it is indescribably great. Go and see it if you possibly can.

**O**NE year ago a thrifty Ohio farmer told us he was realizing a dollar a bushel for his rye by converting it into pork. There was no guesswork about his statement. The hogs were sold on contract, and every week the scales told how many pounds of pork were made from the rye fed.

It is reported that farmers in the Northwest are now feeding their wheat to their hogs, and expect to realize twice its market value as grain. They are fortunate in having the hogs to feed it to. Many of the farmers with fifty-cent wheat on hand are without the hogs this year and cannot follow the plan.

As to the value of wheat as stock food there is no doubt. Under favorable circumstances—that is, with thrifty hogs from clover or good pasture—a bushel of wheat will make twelve or fourteen pounds of pork. The best English authorities consider wheat one of the best and cheapest foods for fattening sheep. For feeding young, growing animals it is worth much more than corn. And when fed with care wheat is a most excellent food for work-horses. Farmers who have fifty-cent wheat which they cannot hold for better prices should not hesitate about feeding it to stock. There is no better grain grown for that purpose.

**T**HE process of aerating milk is being introduced to general use through a new line of dairy apparatus. There are several kinds of aerators on the market, but the principle on which they work is the same.

The milk, as soon as drawn from the cow, is made to flow in a thin, wide stream over a series of horizontal tubes, through which cold water is circulating. The sudden cooling of the fresh, warm milk to about forty-five degrees temperature so retards the development of the bacteria which causes the souring of milk, that it keeps perfectly sweet for one or two days longer than it does when handled by the usual methods.

From tests made it does not appear that the aerator will be of any use to the butter-makers, but it is of great value to the dairyman who sells fresh milk for household use, whether he retails it himself, or ships it to city dealers.

**A**n enterprising firm engaged in the building of improved portable greenhouses, also makes a business of furnishing them with special collections of suitable plants. To the patron giving an order, they can turn over a practical greenhouse furnished with a fine assortment of choice plants.

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When renewing your subscription, do not fail to say it is a renewal. If all of our subscribers will do this, a great deal of trouble will be avoided. Also, give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on label, to your letter of renewal. Always name your post-office.

### The Advertisers in this Paper.

We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

## Our Farm.

### POTATOES—HOW TO GROW AND HANDLE A CROP.

THE general interest that is manifested by farmers in the business of growing potatoes is easily explained by the fact that while the average value of an acre of corn in the United States during the decade ending with 1889 was \$9.47, and that of wheat was \$9.95, the average value of potatoes was \$38.34. Averages are always low, and just as nearly all good farmers obtain double the average receipts from an acre of corn, so do our successful growers often secure double and even treble the average receipts from an acre of potatoes. Such receipts are an inspiration in an era of small profits from the farm, and while we find men everywhere beginning to make a trial of this crop, it is a matter of some surprise that the national acreage remains so small.

Several things conspire to prevent excessive overproduction of potatoes. (1) Soil. Unlike wheat, corn and grass, potatoes will not thrive in three fourths of the tilled soil of the United States, and probably could not be brought to a state of profitable production in nine tenths of the area, even if all else were favorable. (2) Climate. Coolness and moisture are essentials. The potato comes into its fullest development only in northern latitudes. (3) Marketing facilities. The crop is bulky and weighty, and drawing in wagons any great distance is out of the question. However, the rapid extension of transportation lines is developing new territory fast. (4) A prevalent feeling among those who are nussed to the crop that the work of harvesting and marketing is too great to be undertaken. As I grow from 1,500 to 3,000 bushels a year, I hope to be able to show that this last hindrance to undertaking the growing of potatoes is not a valid one.

It is true that the soil, climate and marketing facilities should be good. A rich, sandy loam is the best, although good yields may be gotten off some soils that are deficient in sand. I have grown between two hundred and three hundred bushels per acre on land that had a far too great per cent of clay in it to make it a typical potato soil. In such cases much depends upon the treatment of the land and the mode of culture. As loose soils, when fertile, do not require any special tillage if they be moist enough for this crop, I will speak of the mode of handling more compact land, with which the majority have to deal.

A heavy clover sod is always supposed to give an ideal seed-bed for potatoes, and it is good; still, if the ground is heavily manured while in clover so that the store of fertility is sufficiently great, a compact

soil will be in better shape for potatoes if a crop of corn be taken off the clover sod and the potatoes grown the next year. The ground is rendered looser, the sod is more perfectly rotted, and the tubers will be smoother and finer. But this rotation I can recommend only when the soil is made very rich. Otherwise I would trust the first year after clover.

As to the depth of plowing there is no fixed rule. Much depends upon the soil. In compact, clayey loams I do not want the sod turned much deeper than I can pulverize. For this work the disk or ontaway harrow is the best implement of which I have any knowledge. Thorough pulverization is needed to insure an even stand and get a rapid growth when the plants are young.

I use large potatoes almost exclusively for seed, and two reasons are sufficient. (1) The large potato gives more substance in each cutting to feed the one, two or three eyes in it. (2) The small potatoes, while many are vigorous, and small only because they set late, contain all the runts in the crop. I have watched the digging closely, and often find a hill that contains only "seconds" in size—a lot of dwarfs or runts. These falling into the class of "seconds" increase the percentage of "run-out" stock at an alarming rate. Withal, I have gotten most satisfactory yields from "seconds," and it is often true that the vitality of the stock is very slightly impaired for years. My one serious objection to large potatoes for seed is that when cut and placed in the ground there is always danger of rot. Excessive rains followed by a hot sun may reduce the chances for a crop heavily. But everything considered, I prefer large potatoes for seed in all tiled-drained land.

It is a well ascertained fact that hand planting in marks made by a narrow and deep-running shovel is safer than machine planting in all compact soils. There is better drainage for the seed pieces and less injury to them. In dry and loose land the planter is a success. By either method the work is not costly. One man marking out, three dropping, and one covering with a two-horse cultivator can plant four acres a day easily; or one man with a planter can do the same work.

Careful, deep and close tillage should be given when the plants show above ground. If beating rains come this should be repeated before the plants are four inches high. Then the cultivation should be shallow. Any light-running implement with several teeth or shovels to break the crust after rains, making a mulch of two inches of earth, is all that is needed. Until the vines entirely fill the middles I break the crust after every rain, and keep the hills clean of weeds. Everything possible is done to retain moisture. Two men with cultivators can run through twenty acres within two days after the ground dries, and this is sufficiently soon. For this work when the plants nearly fill the row, one-horse cultivators of perfect construction are on the market at a small price.

The harvesting and marketing can be done cheaply only by those who understand the business. When handling potatoes the eye must be quick and the fingers nimble. Having grown tens of thousands of bushels I confess to a liking for this work that scares so many would-be growers. Where labor is plenty and the men are skilled, potatoes may be dug with hoes or forks, sorted or drawn a mile to the cars for five cents a bushel—this, provided the yield be good. Some of the cheap diggers on the market do fair work; then there are expensive diggers that do rapid and perfect work, throwing out four acres of potatoes a day. If the digging is not done until the vines are dead and the stems rotted off the tubers, and if the crop be smooth and large, a man should fill seventy-five bushel boxes a day with marketable tubers.

Too little care is often used in preparing potatoes for market. All stems and "second-growth" should be removed, and absolutely no litter be allowed to remain in them. Appearance is the chief factor in effecting a sale. All the "seconds" and feeding potatoes must be left out, as they ruin the sale of the others. It is folly to pay freight upon them when they cause a crop to sell for less than the marketable potatoes would bring alone. Rough, scabby or small potatoes are not wanted in city markets, and consumers cannot be made to buy lots containing them only by sacrificing much in price.

The shrinkage in weight of potatoes when stored is very heavy, and storing is

usually disappointing for this reason. The first heavy shrinkage comes within a few weeks after digging; the next when sprouting begins in the late winter, but there is continuous shrinkage between these times. I have carefully tested the matter, and find that potatoes stored late in the fall, and many weeks after digging, will lose several per cent in weight before any sprouting begins or any handling is necessary. For shrinkage from fall until the first of May I allow 20 per cent, expecting this to cover the few that rot. Unless one is accustomed to the care of potatoes in the winter it is always a good rule to sell early. Full weight and small charge for marketing help to make a low price profitable.

All mention of varieties, fertilizing and many minor points must be omitted at this time, but before another planting season comes I hope to be able to offer some suggestions in regard to these points.

DAVID.

### WHAT THE BULLETINS AND PAMPHLETS SUGGEST.

DOCTORING ANIMALS.—Bulletin No. 43 of the agricultural experiment station of Alabama (Auburn, Alabama), contains a treatise on "Eye Diseases of Domestic Animals," especially of the horse and mule. It is a subject of great importance to horse and mule owners. The treatise is written in language well calculated to be understood by the layman, and the text made still plainer, where thought desirable, by diagrams and illustrations. It cannot be my purpose to go into or quote the details of eye diseases, but I wish to call attention, in a general way, to the matter of "doctoring" animals as a sore spot in average farm life. Usually it is connected with an astonishing amount of prejudice and lack of common sense, and often of cruelty. With all the boasted progress and advancement in medical science, with all the skill that is brought to bear upon the discovery of the primary causes of human diseases and their treatment, we have to deplore the inefficiency of practical application. The whole field of human disease is too wide that any one person could become acquainted with every inch of ground, consequently the average practitioner has to feel his way, more or less, in the dark, trying one thing and then another, and often doing more harm than good. If this is the case even when the patient can talk, and tell of his aches and pains and thus aid the physician to a correct diagnosis of the disease, we must expect even greater ignorance concerning diseases and their treatment when the patient is a dumb animal.

Yes, doctoring animals is a difficult and often unprofitable thing. Some time ago some Dorset-Horned sheep were affected in a peculiar manner, breaking out in great sores over the body, especially on the back. They refused to eat, gradually ran down, and with one or two exceptions of recovery, finally died. I tried my best to find out what ailed them, but all to no avail. All the consolation I got from experienced sheepmen was, "Sheep are hard to doctor." When you have to go it blindly in such matters, trying this and that remedy, hit or miss, you are far more likely to miss it, and thereby do damage, than to hit it. The farmer is at another disadvantage. Good veterinary surgeons are scarce, and their services come high. Poor ones are more plentiful, but they charge a good deal for telling what they don't know, and for giving medicines that may do good and are more likely to do harm. Often the owner of a sick animal finds himself face to face with the alternative to let the animal alone and let nature do the doctoring, or employ a surgeon at a big expense and lose the animal in the bargain. Usually an intelligent person can do as well by consulting and studying good modern treatises on the diseases of domestic animals, and be guided by their instructions, than by calling on the ordinary so-called veterinary surgeon found in small country towns. When it comes to surgical operations, however, I am opposed to home treatment. Don't be too free with the knife on a dumb brute. When operations are needed, by all means employ a good specialist, unless the case is one like bloat in cattle, which requires prompt action. In ordinary diseases, however, the farmer has one chance too good to be neglected. Almost everyone of our leading agricultural papers now employ a surgeon of high standing for the benefit of its subscribers. You can make a statement of the case and send it to him. The inclosure of a small fee (usually \$1), insures a prompt

reply by mail. If you will wait, however, until the reply can be printed in one of the next issues of the paper the information will not cost you a cent except postage on the letter. It seems to me that this is a feature of agricultural papers that alone should induce every owner of farm stock to subscribe for one or more of them. At the same time, however, no stock owner should neglect to avail himself of the literature on the subject of animal diseases so freely distributed by experiment stations and the department at Washington.

A plan still better, however, than making preparations to "doctor" animals, is to give them healthy surroundings and wholesome food, and thus prevent disease attacks. The following is a quotation from the bulletin in question:

"The drainage, ventilation and light in most barns are sadly neglected, and generally very defective. The barn is usually resting on the ground, and the stalls are filled with clay, which becomes saturated with urine. The clay allows very little moisture to pass through it; the urine which falls upon it, and with which it becomes saturated, passes off mainly by evaporation. With little ventilation or drainage below it the clay rarely becomes dry and the atmosphere of the stall is saturated with unhealthy gases (ammonia, etc.) from the fermenting urine and decomposing organic matter of the feces. Such unhealthy conditions can be greatly improved by following the methods usually adopted in building houses in this climate. The floor of the barn should be from two to three feet above the ground. This may be accomplished by making the brick or stone pillars for underpinning the required height and using strong plank two inches thick for flooring. Lattice-work between the outside pillars will permit free circulation of air under the barn and prevent the use of the basement for a dog-house, pig-pen, or as a place for fowls. This will give good, cheap drainage below, with excellent under-ventilation. The ventilation of the box-stall (the best and healthiest kind of stall) should be so arranged that the hot and light air may escape through an opening or a series of openings in the upper part of the outer wall. Similar openings should be located in the outer wall, near the floor, to allow the heavy gases (carbonic-acid gas exhaled by the lungs, etc.) to escape. Besides these openings, lattice box-stall doors and lattice outer hall doors and windows should always be in use for summer ventilation. There may be objections to standing a horse on a plank floor, but these may be overcome by bedding or littering the box-stall, by occasionally soaking the feet in water, and when nearly dry, oiling them with an ointment made of one part of pine-tar to eight or ten parts of lard or cotton-seed oil. The light should enter from behind or from both sides of the animal, and be so arranged and of sufficient quantity to enable the horse to see distinctly in all parts of the stall."

Horse owners often surround their animals with all sorts of unwholesome conditions and then expect them to remain well. The matter of pure water and seasonable food deserves more attention than it generally receives. Under some circumstances corn may be useful, but it is not a summer food nor an article for constant use. It is extremely doubtful if corn for colts is ever advisable. Corn is too stimulating and contains too much heat-producing material. For drinking, all surface water from ponds, brooks, rivers and shallow wells should be avoided. Spring water, taken directly from the spring, filtered rain-water or other kinds of filtered water, or water from deep wells are best, and less liable to contain disease-producing germs.

To condense the whole in a few words I would say, put your horses in healthy surroundings, in pure air and good light, give them pure water and suitable food and you are doing your part in preventing disease. This applies with equal force to all other domestic animals, down to the smallest chicken.

COUNTRY ROADS.—Perhaps this question has almost been over-agitated. While it is true that our average roads are bad, and that an improvement in their condition is sadly needed, yet it is also undeniable that in a new country we have to go step by step, and that it is unreasonable to expect the establishment, in a year or two, of roads and road systems over all this extensive country that we find in countries ten times as densely populated, and after centuries of road-making. Neither will any considerable number of people join in the



unreasonable demands of some interested parties who propose that vast sums of money be borrowed and expended for public roads by the states or the national government. There is one thing, however, that could be done by state or local authorities; namely, instruct road commissioners and road overseers the best ways of laying out, making and maintaining roads. The study of a treatise such as "Country Roads," a copy of which the Rural Publishing Co., of New York City, has sent me for inspection (price 20 cents), will be a great aid to road-builders. At any rate it is refreshing, after all the stuff that has been written on the bad condition of our country roads, and the need of their improvement, and the various more or less absurd schemes for getting the means for such improvement, to find at least some ideas and instructions that are of use in the every-day practice of road-making.

T. GREINER.

## PLAIN TALKS ON TIMELY TOPICS.

## I.

The question of obtaining competent farm help is becoming a serious one with us in the East. Not skilled farm laborers, for these we do not expect to find at any price we can afford to pay, but common, every-day men of average intelligence. Ninety-nine of the hundred men obtained through the emigration bureau at New York are utterly worthless for the purpose. If they know anything at all of agriculture they are bound for the West to work with friends or to take farms of their own. We have hired men of brawn who claimed to know considerable about farm work, and found them of about as much use as an uncivilized Indian, and they invariably take refuge in their inability to understand English when brought to task for the deception.

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It had ever been a pet theory of mine that if I could get some of the native-born Americans whom I knew were scarcely able to keep body and soul together in New York, out to the farm, that I would be able to train them for my purpose and be doing a charitable act besides. I looked up a young Irish-American who had worked in my neighborhood some years previous, but who had drifted to the metropolis one fall after harvest. I found him engaged as a helper in a livery stable, and living with a wife, child and mother in two dark rooms, such as are seen only in New York tenement blocks. His wages were nine dollars a week, and his home surroundings gave every evidence of a hard struggle to make ends meet. To shorten my story, I took him into the country, giving him a small but comfortable house to live in, a patch of ground of about half an acre for a garden, furnished him with a certain quantity of vegetables and fruits per week, together with a stock of poultry from which he was to have all the increase and all eggs, and paid him good wages in addition. By dint of much coaxing and other methods I kept him two years; then he went back to the city, to the long hours of labor and to the filth of a set of tenement-house rooms, and my dream of philanthropy was ended.

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Those who are acquainted with the bright side of city life, that side which enables them to enjoy all its pleasures and its instruction and avoid its pitfalls and poverty, acknowledge the fascination of city life, but it is strange indeed that those who have to struggle so hard for a crust of bread in a great city can find time to see any fascination in their mode of living. Instances without number have come to my attention when single men and entire families have been given work and pleasant homes in some of our beautiful suburban towns, only to leave them in a short time and go back to the eternal treadmill from whence they came. I have often thought if some of our boys brought up on the farm could taste city life for awhile without becoming besmirched it would be a good plan to put in operation. The result would most assuredly be that most of them would be glad to return to the farm.

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But that question of obtaining the necessary help on our farms still remains unsolved. We have tried European emigrants, and in the majority of cases find them worthless. The attempt to allure the city man from his field of ill-requited labor and his home dark and dingy to the life-giving air and food of the country has also failed, and the problem is still before us. In view of these facts should we not make stronger efforts to hold our country-born-and-bred

boys? I know that a vast amount of "preaching" has been heard on this part of my subject, but isn't it worth an abundance of talk, and strong talk, too? There are ways and means of accomplishing the desired purpose, but they must be used subject to circumstances and conditions, and these are best known to each individual parent. There are many of the fascinations of city life which might be introduced into our country homes, in a modified form, perhaps, which would be attractive. Hundreds of little things might be done which could make an aggregate most powerful. The question is worthy all the thought and study we may give it, and the sooner it has our voluntary attention the better for all concerned. If you are inclined to attempt the reform, friend, remember that the "burden of the song" of complaint as let out by our dissatisfied young people is based on what they term "the drudgery of farm life." Study the phrase in all its bearings before you begin your work of reformation. If you take hold of the threads properly the task before you will not prove as difficult as you now anticipate. BARTON HALL.

## THE LAWN AND ITS CARE.

There is scarcely any other one thing that adds more to the attractiveness of a home than a neat, well-set, well-kept lawn. The homeliest cottage appears trim and cozy if surrounded by a velvety carpet of living green, while the most imposing mansion loses half its grandeur if hedged in on all sides by a sea of grass and weeds. The tall, unsightly growth not only detracts from the appearance of the place, but it is undesirable under any circumstances. No flowers or shrubbery, however pleasing to the eye, can appear to advantage with such surroundings.

Of late years there has been a marked improvement in the care of lawns, and one rarely sees a city or village home without its complement of closely-cut, green sward. In country districts, too, more attention is given to the lawns than was formerly thought necessary, though one will find many unsightly house-yards in a day's travel.

A mistake very frequently made is that of planting too much near the dwelling. Trees of all descriptions, shrubbery without limit and vines undesirable are planted in utter profusion, mingled and commingled, until a few years' growth makes a veritable thicket of the premises, and a lawn is out of the question. In planting a place, the future size and development of a tree or shrub must be taken into consideration, or too dense a growth is likely to be secured.

I think it is a good plan to have few large trees very near a dwelling. Sunshine and fresh air are essential to health, and too many large trees surrounding a house will produce too much shade, overmoisture, and are therefore not desirable. Two or three large trees to the southwest, not nearer than two or three rods, will break the force of winter winds and keep off the afternoon sun in summer. A grove of large trees to the south, west or north, if several rods from the building, is quite desirable, but an eastern or southeastern exposure is desirable under most circumstances.

If trees are to be planted, there is considerable room for choice. The elm is a favorite with many, because of its almost certain growth and its early growth of foliage in spring. The sugar maple has the advantage of a more symmetrical growth, its highly-colored foliage in autumn and possible future usefulness in the production of syrup and sugar, but its dense growth of top branches makes it an easy victim to wind-storms. The walnut makes a desirable shade and a crop of nuts, but is difficult to transplant, late to leaf out, early to cast its foliage in autumn, and dropping as it does the leaf stems also, makes much litter to be gathered up. The ash is symmetrical in form, but late to leaf. Among evergreens, the spruce is a favorite, being readily transplanted, of rapid growth and always beautiful. But do not hide your house behind a large number of evergreens of any kind. The balsam fir is also handsome, as is the Irish juniper and red cedar. But do not plant Austrian pine very near the house.

For flower beds, find a place, if possible, near the margins of the lawn, and thus provide for some unbroken sward, especially in front of the dwelling.

If the yard is carefully graded, properly evened, well drained and receives proper treatment, there will be little difficulty in securing a good set of grass, and this, if

cut weekly during the spring and early summer, will stool out and cover every inch of space. By cutting frequently, the grass may be left on the ground, where it soon withers and becomes a natural fertilizer for the future nourishment of the plants.

The holes or depressions may be filled in the spring with fine soil, and the grass will soon find its way to the surface again.

During protracted drouths a force-pump and hose are essential in the country, where the advantages of hydrants do not exist.

In autumn it is well to permit the grass to make more advanced growth, as it is thus better protected throughout the winter. While a coating of stable manure is sometimes desirable in securing a good set of grass, as a winter protection and fertilizer it is undesirable, because of its unsightly appearance. A growth of grass, in most instances, is ample protection, and the sowing of ashes or commercial fertilizers is preferable to secure growth.

Of course, a lawn-mower is a necessity, for no one can make a scythe accomplish the work in anything like a decent manner, and in this day of horse-mowers few can handle a scythe at all, while the boys and girls will delight in pushing a lawn-mower, and if well cared for, a good one will last many years with little or no expense. JOHN L. SHAWVER.

## ANNUAL MEETING OF AMERICAN NURSERYMEN.

Although there were prominent nurserymen from all parts of the country in Chicago at the date fixed for the eighteenth annual meeting of the American association, the attendance at the opening session showed that it was impracticable to carry out the elaborate program prepared by the secretary, Mr. Charles A. Green. The various attractions of the exposition were too great to be resisted by those whose time was limited, and after the opening day and a short session the following morning, it was deemed best to indefinitely postpone what remained of over a week's assignment of work.

Of the numerous papers advertised, only five were presented, and only one or two outside matters were brought forward for discussion. The one topic that was discussed at length was the importance of a uniform freight classification of nursery stock. The western nurserymen were especially interested in the question, because western shippers are obliged to release the railroads from liability of more than five dollars per hundred pounds. If these terms are not accepted by the shipper, the goods are put into a different classification at a higher rate. What the association desires to accomplish is to have a uniform classification with uniform rates throughout.

Perhaps one of the most interesting papers was on "Our Coniferous Forests," read by that veteran nurseryman, Robert Douglas, of Waukegan, Ill. He said that in 1837, in traveling from Quebec to Niagara Falls, forests were everywhere in sight. Farmers were girdling the trees and growing crops among the dead pines. During the spring of 1844 he traveled through the virgin forests of Michigan, northern Wisconsin and Minnesota, and could scarcely imagine that pine lumber would ever become scarce in this country. In 1849, in traveling to the Pacific coast, Mr. Douglas found more forest in the first four miles from the shore of Lake Michigan than he found all the rest of the way to the base of the Sierra Nevada mountains, and was then convinced that the time was not far distant when the country would regret the wholesale destruction of its noble pine forests. Twenty-five years ago many magnificent coniferous forests were to be found in Colorado and other far western states, but the ax and the fires are rapidly destroying them, and the more valuable species will never grow there again. Coniferous forests will stand where other more valuable species of the same family have been swept away. The same fires that destroy every vestige of trees and seeds of the valuable evergreens will open the persistent cones of the scrub pines, and they will take the place of what has been swept away. Evergreen trees with delicate foliage are not able to compete with the coarser kinds. They are scorched and killed if the sun reaches the seedlings the first year, and they damp off in too deep a shade. All the noble redwoods once known to exist do not to-day number over one hundred. Mr. Douglas closed his paper by stating that on the five hundredth anniversary of the discovery of this continent there will

be choice evergreens in America; but, like the buffalo, the elk and the antelope, they will be confined to public parks and private grounds.

The following officers were elected for the ensuing year: President, Col. W. H. Pearsall, Fort Scott, Kan.; vice-president, W. F. Heikes, Huntsville, Ala.; secretary, Geo. C. Seager, Rochester, N. Y.; treasurer, N. A. Whitney, Franklin Grove, Ill.

The next annual meeting will be held at Niagara Falls. W. R. L.

## HOME CULTURE.

A boy about sixteen years of age, on a large farm, was looking forward in the fall to a dreary winter. He was poor and obliged to work when he ought to be in school, and must do chores, milk, feed stock and cut wood through the long winter. The farmer he worked for was kind, but not educated and not interested in education, had no books, and only a daily paper bought once or twice a week when he went to market. Therefore the outlook was not inviting. Chores and wood-cutting from four in the morning until seven at night, sitting by the fire awhile and then to bed; that was to be the daily round.

But before winter came something happened that changed the prospect. When the fall work was done one of the hired men went away. In the room of the man was found a book. The farmer gave it to Frank, the boy referred to, for he could make nothing of it. The book was printed in a foreign language, but the one word in English, "Washington," showed that it might be a history or a story of Washington or the city of Washington. Frank became interested in the book before he knew what it was; he studied it—that is, spelled out the words, for the letters were English, or the same as English—every evening, and found at this stage life less monotonous. But the desire came, followed by the resolution, to find out what the book was, and if possible, learn to read it. But how?

One day the farmer sent Frank to market with a load of wood. As this was an all-day job, Frank started earlier than usual, that he might have time to find out about the book. He learned that the book was a history of George Washington in French.

Several weeks went by without bringing any help. One rainy day the farmer gave Frank a holiday if he would go to town and get a logging-chain mended. On this trip he learned more about the book and the French language, bought a second-hand French grammar and a dilapidated dictionary, for he had little money. To make a short story, Frank read the life of Washington in French before spring, with occasional help which he obtained from a teacher of French when he was sent to town.

There may not have been anything remarkable in this, and the reader may say that he might have been studying something more profitable—immediately profitable; but it was what came in the way at the time and it answered the purpose, made the winter pass quickly and turned the mind from self and labor. But this was ultimately profitable for the boy. It woke him up intellectually. He had not been to school much, but now he took up other studies and passed from one to another with great earnestness and speed, working all the time, studying evenings, until he became a teacher and a lecturer. He gives the credit of what he is or has done to the little French book that came into his hands.

There are many boys and girls on farms situated as this boy was. Let them take up some study and stick to it, if for no other purpose than to quicken the mind, for there is no doubt that a man with a quick, active, eager mind can carry on a farm better than a man of the opposite characteristics. It is hard sometimes to apply the mind to anything new. The mind sometimes is like the stationer's glue; at first it will not stick, but if pressed down and held a little, it takes a firm hold. GEORGE APPLETON.

## Life and Strength

Are given to weak and frail children in wonderful manner by Hood's Sarsaparilla. Mr. Edward Hilbert, Lawrence, Mass., says:

"Our daughter, Etta, had little strength when a baby, and did not improve as she grew older. When two and one half years old she had frequent fainting spells, caused by heart trouble. Nothing gave her any strength till we gave her Hood's Sarsaparilla. Her general health improved until she became healthy and rugged. We give her



Etta Hilbert.

Hood's Sarsaparilla. Her general health improved until she became healthy and rugged. We give her

## Hood's Sarsaparilla

occasionally now, when she complains of that tired feeling." N. B.—Be sure to get HOOD'S.

HOOD'S PILLS Cure Sick Headache. 25c.

## Our Farm.

### GARDEN AND FIELD NOTES.

**P**OTATO-BEETLE AND BLIGHTS.—A year ago I was in hopes that the natural enemies of the potato-bug had nearly succeeded in wiping out the bug nuisance. Surely, there were only few bugs on our potato-vines, and not enough to call for the use of Paris green. This year they have returned in old-time numbers—by the million—and probably we shall always have them with us. We will have to fight them long and vigorously. The dry mixtures—slug-shot, plaster and Paris green, etc.—are all right, if the Paris green is all right, but you must see that the vines are kept covered. If you make yourself guilty of a little neglect, or happen to get a poor lot of Paris green, you may all of a sudden find your vines covered with slugs and partially leafless. A close watch of the patch and prompt action in an emergency are always necessary.

When we thus happen to find a large number of undesirable visitors on our vines, we can to some extent stop the mischief at once by going over the patch with pan and paddle, gathering the bulk of the slugs, and killing them by pouring a little water and kerosene on them. But in order to do thorough work, we should not neglect the use of Paris green. It is easily and quickly applied in water with one of our modern knapsack sprayers. The question is how much poison to use. I have often advocated weak dilutions—say one pound of green to one hundred gallons or more of water. Even then some injury to the foliage was unavoidable, while the effect on the bugs and slugs was often not as prompt as we would wish. Now we have learned that the addition of a little lime to the water will prevent all damage to the leaves, while it does not interfere with the poisonous effect of the green on insects.

It would do no harm, either, and might do good in checking the regular rot-blight if we were to add also some bluestone (blue vitriol, or sulphate of copper) to the water; or in other words, if we would use the "diluted Bordeaux mixture" in place of clear water as a diluent for Paris green.

The rot-blight (*Phytophthora infestans*), however, is not a regular visitor, and I believe that preventive treatment is not usually required, while the curl-blight (which, being as yet unidentified, is unfortunately compelled to worry along without a scientific name) seems to be proof against any and all the fungicides thus far tried for it. This curl-blight has made me its annual visit for years, and taken its annual toll of about one half of the crops in spite of all I could do. For this reason I have concluded to quit using the Bordeaux mixture on potatoes, and now make my spraying liquid as follows: A barrel is filled with water. Into this I throw a quantity of lime, preferably freshly-burnt—say four or six pounds. When it has slaked, the water is stirred thoroughly, and the lime allowed to settle again. Now the clear liquid is dipped off into the sprayer, and about an even tablespoonful of Paris green (first made into a paste with a little water) stirred into each sprayerful of the liquid. Don't mix the Paris green with the lime-water in the barrel. The poison will settle with the lime to the bottom, and in order to keep or get it in suspension, you would have to stir the liquid, and thus mix the coarse parts of the lime all through. Better add Paris green to the clear liquid dipped off from the top.

Sometimes the pump part of the sprayer is not quite tight, letting the liquid trickle down the operator's shoulder or back. In working the sprayer I prefer to put on an old rubber coat for protection. It is not pleasant to have Paris green and lime-water soak through your clothes and clear to your skin. But with the filled knapsack on your back and nozzle in hand, you can go over the ground pretty fast, and do good and effective work. The bugs yield to this treatment quite quickly.

Don't forget to keep your egg-plants, if you have any, well covered with poison; otherwise the bugs and slugs will be sure to injure them seriously.

**ASHES AND LIME FOR INSECTS.**—D. F. Hockett, of Randolph county, N. C., suggests the use of dry wood ashes, or of freshly-slaked lime, for the potato-bug. I believe that strong, fresh wood ashes sifted over soft-bodied insects, such as slugs and caterpillars, while the plants are wet with

dew, will have a tendency to discourage these enemies. Ashes have often been tried with good results, but if not fresh and strong, they will fail. Lime is known to kill many insects, worms and slugs, when dusted or sprayed over them. The ordinary slug at once dissolves when touched by lime or salt.

Mr. Hockett also states that potatoes grown under a covering of hay, straw, oak leaves or litter of any kind, are never attacked by the potato-bug, while the cultivated vines were eaten up close by. The explanation is simple enough. The beetles emerge from their winter quarters just as soon as warm weather sets in. They are very hungry after their long fast, and at once hunt up pastures green. Wherever they find a plant already up, or just breaking through the ground, they alight and begin to feast. After awhile all the bugs have selected their pastures, and there they are apt to stay. The later patches (no matter whether from late plantings or late from being retarded in reaching the surface by a covering of litter) are apt to escape.

**FIGHTING THE CABBAGE-WORM.**—The green worm seldom bothers me much. Dusting with buhach or spraying (sprinkling) with buhach-water or with potash solution, splashing with hot soap-suds, etc., have always made short work with the caterpillars on my cabbages. Now Mr. A. S. Fuller gives us another apparently simple remedy, and one having a lasting effect. He advises to throw a little corn-meal—all the better if mixed with salt—into the heart of the plant. The meal decays and emits an odor which the worm is unable to endure. The remedy is easily tried.

## Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

### DISEASES OF RASPBERRIES.

There is a great difference in the liability to diseases of the different varieties of the raspberry. Some of the kinds producing the finest fruit are so weak in constitution as to render them valueless for cultivation, and only those kinds are profitable which are strong and vigorous in constitution and resist diseases without recourse to special treatment. High cultivation will be found the best preventive of disease, but there are three diseases that are occasionally very injurious even in the best cultivated plantations.

(1) **LEAF-CURL.**—This name is indicative of one of the early stages of the disease. The leaves curl up, and though they may remain green all through the season the plants make a poor, weak growth. The fruit is dull in color, small in size, and rather bitter in taste. Later the plants kill out, and any healthy sets with which they may be replaced soon succumb to the trouble. This disease spreads very slowly, and as a rule there are only a few infected spots in a plantation, which slowly increase in size from year to year. The spread of the disease may be prevented to a great extent by pulling and burning the diseased plants as fast as they appear. In setting out a new plantation use only land that has not been in raspberries for several years, and to take great care to have young, healthy sets. Do not accept plants from a weak plantation on any account.

(2) **RED ORANGE RUST** (*Caeoma luminum*).—This is most hurtful to the black-cap raspberries, though it frequently injures other kinds. It produces a weak appearance in the canes and foliage, and in the latter part of the summer the under side of the foliage becomes completely covered with a thick coating of brilliant orange-colored spores, which easily rub off. One soon comes to know the plants that are diseased even before the spores appear, and they should be pulled and burned at once. This is especially necessary with the black-cap varieties; but even with these, if the affected plants are destroyed, the disease may generally be kept in check until a new plantation can be well started, and sometimes assiduous attention to pulling and burning results in stamping out the disease.

(3) **ANTHRACNOSE, OR CANE RUST.**—Also known as the raspberry cane rust. It manifests itself by weakening the growth and causing the bark of the canes to become marked with many white or grayish, flattened or depressed spots, bordered by a ring of purple; some of these spots may be one third of an inch in diameter. This disease seldom does serious injury to any but cap varieties of the raspberry, and it is only occasionally noticed to any extent in some

sections, and then not as being very hurtful. In some of the eastern states it is so abundant as to almost prohibit the growing of cap varieties. The treatment for this disease consists in burning all the infected canes and in applying Bordeaux mixture to the new growth occasionally during the growing season, commencing early.

### QUINCE CULTURE.

In addition to the ordinary use of the quince for making jelly, preserves, etc., it has become popular in recent years as a canned fruit. For this purpose it is but little behind the Bartlett and White Doyenne pears, and is superior to the much talked of Kieffer. There are but few varieties of the quince. The best known is the Orange of Apple-shaped, which is an excellent fruit. The Pear-shaped is not so large, and differs in form, as indicated by the name. The Portugal is a fancy variety, the flesh of which becomes crimson when it is stewed; but

### ITS RATHER LIGHT YIELD

is against it. Rea's Mammoth, a variety which originated in southeastern New York thirty or forty years ago, and which has been reintroduced recently, is very large, but the most unproductive of all fruit-trees tested here, not excepting the Nivette and Emperor of Russia peaches. Champion, from Connecticut, is doing better than it did at first in the central west, but is hardly satisfactory yet; Fuller and Meech's Prolific, brought into notice in New Jersey within a few years, seem worthy of attention. Missouri Mammoth is but little known east of the Mississippi. The Missouri state horticultural society makes favorable mention of it in the report for 1891. The Angers, which originated in the French city of that name half a century or so ago, is used extensively as a stock for dwarf pears, for which its strong growth specially fits it; the fruit ripens later than the Orange, is smaller, not as round, and is hardly as good.

### THE PRINCIPLE OF VARIATION

Implanted in the constitution of fruits generally, and to which we are indebted for all the finest cultivated kinds, seems less pronounced in the quince than in the other large fruits. As a consequence but little has been done in the way of planting seeds to produce new varieties. An exception to this is found in the labors of Mr. Burbank, of California. Among other things he has succeeded in producing some choice quinces. Two of these, named respectively Van Deman and Santa Rosa, are said to be free from the usual downy covering, and so agreeable when ripe that they can be eaten out of the hand.

### A DEEP, RICH SOIL,

Moist, but by no means wet, is most suitable for the quince. The drawbacks to its cultivation, apart from thin soil, are the twig-blight, that affects some varieties of apples, and which injures the quince in some localities; and one of the apple-borers (*Saperda*) which sometimes attack the trunk. The first resembles the pear-blight, but rarely or never kills the tree. The remedy is cutting off and burning the diseased shoots as soon as observed. As to the second, an occasional examination of the stem of the tree will show whether or not the borer is present; and if so, cutting out with a knife or probing with a wire will arrest the work of the insect. There are large sections of country where these troubles are practically unknown.—*R. J. B., in Orange Judd Farmer.*

### COAL ASHES FOR FRUIT-TREES.

You wish to know what I thought of coal cinders and ashes as a mulch for fruit-trees. In short, I like it better every year. I would not grow an orchard in any other way. I believe when it is understood and put into practice it will be a grand success.

This item is given to draw out the opinions of others on the subject. My observation favors the belief that a mulching of coal ashes and cinders is a benefit to what we might call cold-blooded trees and bushes, such as the apple, pear, cherry, plum, currant and gooseberry, for the reason that it keeps the soil cool and moist above the roots. On the other hand, it would prove a positive injury to the grape, the peach and all shrubs and fruit that thrive best in a warm soil and warm air.—*Rural Life.*

### INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

**Slugs on Strawberry Leaves.**—A. L. Yardley, Pa. The slugs you refer to eat mostly from the under side of the leaves, so that the insecticide should be applied from that side. By using a short nozzle on the end of a stick, about six feet long, this may be easily accomplished. If Paris green is used in this way, at the rate of one pound to one hundred and fifty gallons of water, I think it will destroy them.

**Renovating Strawberry Beds.**—T. W., Birmingham, Ala. Your plan is a very good one for renewing the old strawberry bed. If your plants are some pistillate and some staminate you will have to use some care to be sure of saving some of each kind. Under my plan the plants are set in rows four feet apart and four matted rows about two feet wide. When done picking, mow off and burn all leaves and weeds, and run a plow on each side, so as to cut off all but about twelve inches of the matted row. I then cut out all weak and superfluous plants with a hoe; fill up the furrow with rotted stable manure, start my cultivators, and treat it as if it was a new bed.

**Burning off Strawberry Beds.**—H. B. K., Bryan, Ohio. Strawberry beds may be burned over as soon as they are done fruiting, if they are to be fruited another season. My plan is to mow off all the leaves and weeds, setting the knives very close, and then in a few days, as soon as the leaves are dry, to burn them off. After this I clean up the bed by plowing and cultivating. I find that by burning off the leaves I get rid of the leaf-rollers, and that the new foliage of the plants is much healthier than it would be were the old leaves allowed to remain. This treatment is a great success wherever tried. If the trash is very thick in spots, some care may be necessary in burning, but ordinarily no harm is done at all.

**Pear-trees Injured by Locusts.**—W. W. D., Austin Springs, Tenn., writes: "Last fall I purchased two hundred pear-trees, set in new ground. Last spring they grew finely, but unfortunately this is locust year with us. When the locust began to sting the trees I got cloth and wrapped the bodies of each tree, but I notice they have stung some through the cloth, and the tops are all killed, or nearly so. Now, what had I better do to the trees? Will they sprout out from the body if cut off? When is the best time to cut?"

**REPLY:**—Let your injured trees alone, and allow everything to grow that starts, and do not prune until next season. Of course, dead wood may be cut off. I cannot tell you how much they will be set back, but probably not more than one season. From now on watch out and keep off all lice, and other insects, so the trees will have as good a chance as possible to make up their loss.

**Budding Peaches.**—M. E. S., Assyria, Mich., writes: "We have a row of peach-trees started this spring. They are two to four inch apart. (1) How should they be treated before budding? (2) When should they be budded? (3) At what age and at what time should they be removed to the orchard?"

**REPLY:**—(1) If they are reasonably free from branches near the ground where they are to be budded, they need no care except good cultivation until budding-time. If they are full of small branches near the ground, enough of these should be cut off to make room for the bud. (2) If we have a reasonably good season, they should be budded about the middle of August. If the weather should become very dry, or the foliage of the trees injured by insects or other causes, they should be budded earlier. (3) If budded this year they should be large enough to remove to the orchard in the spring of 1895.

**How to Distinguish Varieties of the Blackberry—Blooming without Fruiting.**—P. N., Vanceburg, Ky., asks: "(1) How can you tell the Wilson or Early Harvest blackberry-plant from the wild plants? (2) What is the cause of the Wilson having a large bloom without forming the berry?"

**REPLY:**—(1) Among the wild blackberry-plants may be found those that resemble the Wilson, and also the Early Harvest, and it would be quite impossible for me to describe to you the general difference. Yet each of these varieties has very striking peculiarities that would be sufficient to distinguish, under most circumstances, from the wild plants, by one who was familiar with them. (2) It might result from a drying wind or frost, when it was in blossom, which injured the flowers; from setting more fruit than the plant and soil could carry, and in fact, from anything that weakened the plants.

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**FIELD NOTES OF A GARDENER.**

**T**O-DAY I have been testing a new implement for hand cultivation. It was sent me for trial two weeks ago, but I have been so very busy with the marketing of strawberries that I have had no time to more than look at it. It is called a "rotary cultivator," and in principle and action it is exactly similar to the two-horse disk harrow or clod-crusher. It consists of a frame about two feet long having a cast-iron wheel one foot in diameter in front, and two sets of disks near the rear. The disks are about six inches in diameter, and there are eight to each set, being placed about an inch apart on their axis. One is placed in front of the other, and they are adjustable so as to stand at an angle, and they can be shifted sideways so as to cover fourteen inches or only nine, or any width between, as is desired. It has two handles like any wheel-hoe, and its method of use is exactly similar to the lawn-mower. The inventor makes the following claims:

"First, simplicity of construction." This claim is well founded.

"Second, the cutting parts of this cultivator having a rotary motion, two thirds of the friction of the ordinary stationary tooth cultivator is overcome." This is also true. It is much the easiest hand cultivator to use of any I know of. It does not run more than half as hard as a twelve-inch lawn-mower.

"Third, it cuts and covers the weeds." This is only true of very small weeds—those less than three quarters of an inch high.

"Fourth, it hoes the plants or not, as the operator wishes." This is true, and in this respect it differs from the two-horse disk machine, as it can be set at an inner as well as an outer angle. This fourth claim should be qualified by the nature of the plant to be hoed. A narrow, straight plant, like an onion, will permit the machine to go close enough to throw a little dirt up to it; but broad or bushy plants, like the strawberry or the cabbage, will be injured by the cutting or mangling of the foliage if an effort is made to go close to the stems. In working around strawberry-plants it leaves four or five inches square that must be completed with a common hoe.

"Fifth, it thoroughly pulverizes the soil to the depth of two inches, leaving it light and porous for the action of the air and sun." The soil must be extremely light and dry where this claim can be made good. On my soil it only runs about an inch in depth; but this I consider deep enough, as most gardeners expect to do the stirring of the lower soil by horse-power.

"Sixth, it can be used for hill or level culture, at the option of the operator." By running it along one side of a row and back the other a number of times, a slight amount of soil might be thrown toward the plant, but not to the extent that it should be called ridge culture.

"Seventh, it can be used closer to young and tender plants without disturbing them than any other cultivator." This I believe is true. I worked quite close to parsnips that had only been up a week, and which were not more than one fourth of an inch high.

"Eighth, it is a most convenient implement for cutting strawberry runners." It will readily cut young and tender runners, and where such are present during cultivation it will save removing them by other means.

I have been thus careful and particular in discussing the main claims of this little implement (which weighs no more than a bucket of water, or about twenty-five pounds), because I really believe it to be the application of a correct principle in hand cultivation, and just adapted to some kinds of work. To-day I cultivated five thousand onions planted in rows about fourteen inches apart, in less than half an hour, going three times in each row. It would have taken at least three hours to have done the work with an ordinary hoe.

I also used it among the strawberries. They are set four feet by eighteen inches. The wide way we cultivate with the Planet Jr. by horse, and by using a very narrow tooth on the back end are able to get within two inches of the plants. This leaves a strip about four inches wide which is uncultivated between the plants. I run the rotary across the rows between the plants, running it wheelbarrow fashion from one row to the next, and only used the disks between the plants. I pushed it

forward, then drew it back a foot and shoved it ahead once more (it works backward as well as forward), using the same motions that a person uses in mowing with a lawn-mower the edge of a narrow terrace. In this way I thoroughly pulverized the spaces between the plants at a rapid rate, killing any incipient weed growth started beneath the surface. I am satisfied that a man in this way could cross-cultivate an acre in a day and a half, perhaps less. To hoe it by the usual method it takes four or five days.

The plants are not set in rows across, but the machine can be zigzagged in either way as easily as a wheelbarrow.

Now, I have no interest in the sale of this machine, and cannot answer letters about it, but will notify the inventor of my liking for the implement and advise him to advertise it in FARM AND FIRESIDE and the leading horticultural journals before another gardening season comes around.

**MATTED ROWS VERSUS HILLS.**—Last year I took more than ordinary pains with a patch of strawberries, of a little over an acre in extent. The ground was a rich potato stubble, and I manured it in the winter and then again in the spring, just before planting. It was well cared for during the summer, and was so thrifty and nice that everyone who saw it last fall and this spring complimented me on its appearance, and I hoped much from it. It has done fairly well, but fallen far short of my expectations. There have been a great many small berries, and many of the large ones were imperfect; and the worst of it is I cannot determine the reason. My wife, who spent several hours daily in the picking-shed during two weeks of the busiest period of picking, thinks it is the result of the bad weather during blooming, and I am inclined to think perhaps this is the principal cause. At first I was inclined to think that it was because the plants were too crowded, but the rows of Bubach and Ontario are quite narrow, not making many plants, and the fruit of both was imperfect. I believe it is claimed that there is a bad-smelling little bug, a trifle larger than a flea-beetle, that sucks the juices of the berry in its early stages and causes what is known as buttoning, but I have not noticed any abundance of these insects; in fact, have seen but two this summer. (Since writing this paragraph I have made a very careful examination of several rows, and find a good many of the insects referred to.)

I have a friend, Hon. I. P. Sperry, who is one of the best amateur strawberry growers in the state, and a look through his patch makes me tired of my own. He tells me that his success is the result of a little attention every day, and that the same amount of work applied to a large plantation would not be profitable. Be this as it may, I am trying to arrange my work so as to give some of this amateur attention to a portion of the nine thousand plants I set this spring. I shall keep the runners cut, and try to give a thorough, critical inspection every three or four days, encouraging each plant to do its best, and if the next season is propitious, get, as my friend does, a yield approaching three hundred bushels per acre.

L. B. PIERCE.

**RESCUE-GRASS.**

Rescue-grass is an annual winter grass, and is justly popular with those best familiar with its merits. When once started, its growth after successive cuttings or grazing is very rapid. It is tender, very sweet, and stock of all kinds eat it greedily. By the first of May it can be mown, the product of hay being about two tons in weight, of fair quality, besides furnishing from fifteen to twenty bushels of seed per acre, worth from two to three dollars per bushel. Like timothy, the stalks and leaves are still green when the seeds are ripe. It produces an immense quantity of leaves. On loose soil, some of it is liable to be pulled up by the stock grazing on it. Enough seed shatter out on the ground to reseed the land, though the hay and seed crops are harvested. Or if you mow it before the seed matures, another crop will spring up and mature seed to reseed the ground for another year.

After the crop is off, the same land can be sown to some other crop, such as corn, cotton, peas, or any late crop. The grass springs up again with the fall rains. Thus the land is utilized all year and two crops produced instead of one; or in other words, two profits made instead of one, doubling the productiveness and profitability of the land.

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If the land is not utilized for another crop after the grass, it should be plowed early in the fall to cover the grass-seed on the ground's surface, which will insure a quicker and better stand and a more satisfactory yield.

Being of winter growth mainly, it is not very exhaustive to land. As it grows from the seed, either mowed or pastured it can be readily exterminated.

It makes the best pasture after the first year. It makes a verdant lawn during fall and winter, on which chickens will delight to roam and feed, insuring plenty of winter eggs. It naturally grows rapidly on rich land. It is not advisable to sow on poor or wet land.

It makes no difference how close you gather the seed, there will be plenty to fall to the ground to reseed the land, and you will have a good pasture another season, whether you plow or not, though it is better to plow. If the ground is broken after the grass fails in the spring, you are assured of a fine crab-grass crop, which you can either mow for hay at the proper time, or graze profitably until the last of August or first of September; then plow and harrow the ground, and the rescue will quickly come after the first rain.

In sowing seed, break your land well, broadcast from August until the middle of October and sow two bushels of seed per acre, covering with a harrow. I have known good success when seed was sown late in November, but the earlier sown the better. Some parties have sown seed when laying by cotton, and some after through picking. One man claims to have sown between the drills when cotton was laid by, and harvested twenty-five bushels of seed from the rescue.

Mississippi. EDWIN MONTGOMERY.

**CORRESPONDENCE.**

**FROM WYOMING.**—A letter from this part of Wyoming may be of interest to some of your readers. The elevation of this place is over 7,000 feet. The winters are quite long and cold. It is nothing unusual for it to snow here as late as June and as early in the fall as October. One not accustomed to this high altitude may wonder how people make a living here. The fact is they make a much better living here than they do in many parts of the East. Nearly everyone has a ranch and cuts from twenty to five hundred tons of hay raised on irrigated meadows. The smaller ranchmen keep from ten to thirty dairy cows and feed the most of the hay to them during winter. Milk and butter always bring a good price. They also raise potatoes for market. Potatoes usually do well here and bring a good price. In the winter they put in a part of the time cutting fence posts out of pitch pine, which makes much better posts than the oak in the East. They are hauled to the railroad stations, where they bring about ten cents each. When the year ends the small ranchmen find themselves much farther ahead than many farmers in the East. The more wealthy ranchmen, as they are called here, depend on their large herds of cattle and horses. Their horses and cattle are allowed to run wild on the ranges, and are gathered only in the spring in order to brand the young stock, and at such times when they wish to ship a few car-loads to market. The large amount of hay they cut is baled and shipped to such markets as Denver, Cheyenne and Laramie, where there is always ready sale at a good price. Grass matures here about the middle of July and dries up without rain and makes the best of winter feed. Some sheep are handled here, but it is a little too high, and the winters are a little too cold for them to be handled at a good profit. Other portions of the state are much better adapted for sheep.

Tie Siding, Wyoming. B. S.

**FROM INDIANA.**—Benton county lies just east of the Illinois state line. The soil in this portion of the state is rich, black, sandy loam, varying from two to three feet in depth, with a gravel and clay subsoil beneath. The ground is high and rolling, well tiled and watered. On some of the farms are yet to be seen large boulders. On a majority of the farms the boulders have been blasted with dynamite and removed. The farmers find ready market for these rocks at \$1 per load. They are used in walling cellars and laying foundations of

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buildings. Fowler, the county-seat, is about ninety miles from Chicago. It is a thriving little business city of 1,500 inhabitants. The buildings are modern, neat and substantial, and business of all kinds is well represented. Electric lights illuminate this little city. Shade-trees are found in great numbers. There are good churches and good schools. Boswell is a thriving little town, situated about twenty-five miles west of LaFayette, with a population of 1,200. Notwithstanding the excessive rain, crops will surpass the hopes of the most sanguine. Oats especially look well and promise a rich harvest. Corn, the principal crop, although late, is doing well. Hay is abundant in this section and promises the average yield. Orchards consist usually of small trees, which will not yield much fruit at present. Peaches and cherries are most abundant this year. Apples are scarce. One of the attractive features of this country is the graveled roads. The excellent condition of the roads throughout the year is a great advantage, and increases the value of farm land at least \$5 per acre. Land has increased in value in this country during the last two years, desirable farms bringing from \$50 to \$80 per acre, according to location and improvements. The improvements in the way of building and tiling indicate the thrift and prosperity of the people in this part of the state, while the successful schools and churches show the interest manifested in educational and religious institutions. Prosperity is apparent everywhere, and land-buyers need not seek the far West in order to secure good and comfortable homes.

Hoopeston, Ill. A. J. MCW.

**FROM FLORIDA.**—I have found this to be the finest climate in the world. We have very little cold weather, and the warm weather cannot be compared with that of the North, as we always have the breeze from the gulf, and cool nights. The soil is poor, but with the help of fertilizer excellent crops can be raised here. Corn, oats, rice, millet, sugar-cane, Irish and sweet potatoes all do well here. The best paying crops are peaches, pears and grapes. This is the home of the perfect peach. They are shipped to the northern states and bring from four to six dollars per bushel. Pigs raise themselves in the woods, where they roam at pleasure. The natural grass is green the year around, but it is poor stuff. On the other hand the crab-grass grows luxuriantly in all the fields, and is cut for hay after the corn or oats have been harvested. There is still a good deal of homestead land, and other soil is cheap.

De Funiak Springs, Fla. H. W. W.

**FROM ARKANSAS.**—We have a good country, beautiful scenery, pure spring water and fine mineral springs. Many people come here for their health. We raise cotton, corn, wheat, oats, cane, peanuts, Irish and sweet potatoes, and the best of fruit. Any one wanting a pleasant country to live in, where they can have everything they want, will do well to come here and buy a home. Unimproved land is \$2 to \$5 per acre; improved land is higher.

Turnip, Ark. L. E. G.

**WESTERN FARM LANDS.**

A pamphlet descriptive of the farm lands of Nebraska, Northwestern Kansas and Eastern Colorado will be mailed free to any address on application to P. S. Eustis, Gen'l Pass. Agt. C. B. & Q. R. R., Chicago. Send for one and give names and addresses of your friends.

## Our Farm.

### THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammonton, New Jersey.

#### THE POULTRY INDUSTRY.

It is not necessary to attempt to give figures in order to show how great the poultry industry may be, for no reliable estimates can be made, owing to the difficulty of taking a census of poultry and eggs; but if we allow only one dollar per year as the value of the eggs consumed in the United States by each person, we have the large sum of \$60,000,000, while the poultry consumed is perhaps equally as large. We believe that one dollar per individual is much too low an estimate, but it is sufficient to give some indication of the egg industry.

Nor do we produce enough for home consumption. Despite the tariff of five cents per dozen on eggs, they are still imported, and the supply has at no time been too great. As long as there is a great demand, and at the prices received this season, it is safe to claim that the poultry industry holds out as great inducements as any other. It is true that all who attempt to succeed do not accomplish the object desired, but no business is certain to pay well unless under the management of an experienced person. The fact is plain, however, that eggs increase in price each year, and that there is a ready market for poultry and eggs during every season of the year.

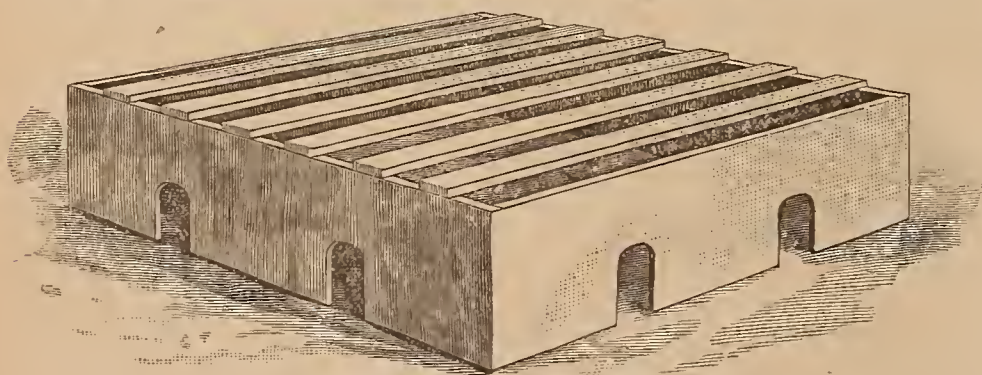
There are no dull times for the poultry and egg business, for there is not a month in the year that a ready sale cannot be made for all that may be offered, and as eggs are always sold for cash, which lessens the liability of loss, it is a claim in favor of the poultry industry which does not apply to all other branches of business. We doubt if anything raised on the farm pays better than poultry, or offers a greater certainty of allowing a profit to be secured.

#### FLOCKS IN YARDS.

In the suburbs of cities and towns are hundreds of small flocks, kept in yards that have no shade, and in which the hens are exposed to the heat of the sun during the whole day. The poultry-house is also warm, and like an oven in temperature when the additional warmth of the bodies of the fowls is added to that which is absorbed by the wood during the day. Over-feeding, with corn as the principal food, causes some of the hens to succumb to the effects of the heat in summer, while lice breed rapidly and contribute to the inconvenience of the fowls. A piece of muslin stretched across the yard, or shade of any kind, will aid in avoiding some of the drawbacks. Green food, which may be provided in the shape of finely-cut grass or a head of cabbage, with a variety of food, using lean meat in preference to grain, will assist in promoting the health of the flock and keeping them in laying condition.

#### A LATH RUN FOR CHICKS.

No doubt some of the readers have experienced difficulty in raising chicks in the same yard with hens, which resulted in the



LATH RUN FOR CHICKS.

chicks being crowded out at meal-times, and being pecked by the hens, they were afraid to go among them, the chicks securing only the food not desired by the hens. The illustration shows a box into which the chicks can go at any time to feed, and the hens cannot get to them at all. The box is made of a sixteen-foot board, twelve inches wide, the board being cut into four pieces, each piece four feet long, and nailed together. The box has no bottom, but the top is covered with lath, the sides having holes that admit the chicks and exclude the hens. By having the box bottomless, it may be moved from place to place, thus avoiding filth.

#### A CHEESE-BOX COOP.

A cheap coop for a hen and a brood of young chicks may be made of an ordinary large cheese-box. If the box is not deep enough, two of them may be fastened together. It is only intended for use during the first few days of the chicks, as the box would not answer for the hen during any length of time, the room being too restricted. It serves well for summer use, as it is cool and can be cleaned or moved easily. Simply mark the box all around into strips about two inches wide, and cut out each alternate strip. The object of the contrivance is to enable one to prepare a coop in a short time and at almost no cost. As the chicks will be removed after they are large enough to run about, the coop may then be used for the next young brood.

#### THE STUBBLE-FIELDS:

If a flock of hens performed no service but that of securing the waste grain of the stubble-fields, it would be a great advantage in their favor. There is an enormous loss of grain at harvesting, as much cannot be secured, and the animals cannot utilize it. When the hens, turkeys, ducks and geese, and we may include the guinea, are given a free range over the stubble-fields, they will convert the grain left on the ground into poultry and eggs. This will be clear gain, and the young weeds and grass will also be consumed. When the hens can have the privilege of foraging, they keep in the best condition for producing eggs, and the large amount of food picked up and consumed is only indicated by the heavy, full crop when they come up at night. If they can be put to such good service on the stubble-field, they are valuable on all kinds of farms.

#### AN UNLOOKED-FOR CAUSE.

When your chicks die or your hens droop, and you cannot account for the misfortune, try rubbing a few drops of sweet-oil on the heads and necks, and in a majority of cases recovery will be the result, as oil will destroy the large lice, which you cannot discover until you look on the places designated. Such lice are never seen in the poultry-houses, as they confine their operations exclusively on the heads and necks of the fowls.

#### INDIVIDUAL ENTERPRISE.

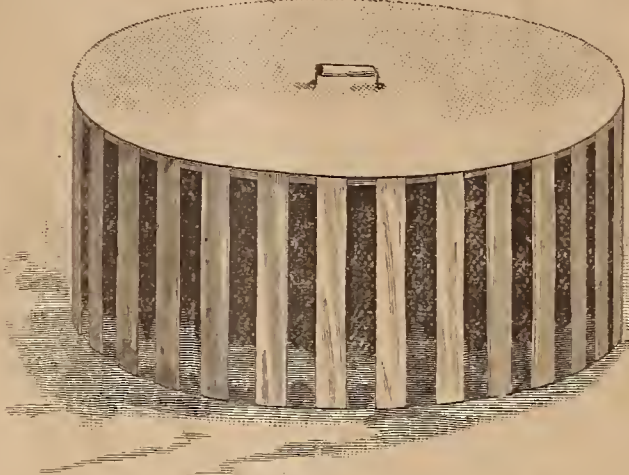
The benefit to a whole community through the purchase of only a single dozen of eggs is often very great. All have fowls, but no pure breeds. One enterprising individual is bold enough to expend one or two dollars for eggs, and raises a few good chicks. His venture is closely watched by his neighbors, who may probably not approve of his supposed extravagance. In the course of a few months, however, they cannot fail to note the difference between pure-bred stock and scrubs, and they seek to procure eggs from the fortunate party

#### LET THEM SIT.

If your hens wish to sit in the summer, and no chicks are desired, give them one or two china eggs, and allow them to stick to the nests for two weeks, and they will be in a better condition for laying when they come off. Never break up a hen suddenly, as she will lay only a few eggs and begin to sit again.

#### GEESE ARE PROFITABLE.

Where there is land that cannot be used with profit, geese can secure their food unaided. On farms where a portion of the land is uncultivated, and where water is



CHEESE-BOX COOP.

within easy access, the raising of a flock of geese, both for meat and for the feathers, will pay for the amount that may be invested. No kind of poultry gives less labor and care to the farmer than geese. They seek their food both on the land and on the pond, and are seldom subject to diseases. It is not usual that high prices are obtained for geese, but when the returns come in, they are nearly all profit.

#### WASTING FOOD.

This is the season of the year when food that has been moistened with water quickly spoils, and it also causes disease. The habit of filling a trough with such food and leaving it to the hens to consume is injurious to them in several ways. In the first place, it induces them to eat too much, leading to indigestion, which is often mistaken for cholera, or it makes the hens too fat, thus lessening the supply of eggs, as well as adding to the cost of the food. It is better to allow too little food, rather than to give too much.

#### RYE FOR POULTRY.

Sow a patch of rye, if only half an acre is grown. It is green later in the season than grass, and grows earlier in spring. It is not valuable as food, so far as the nutriment contained is concerned, for green rye is watery, and may cause bowel difficulty, but if used as a portion of a ration, it will aid in preventing disorders arising from the use of too much grain. It affords a change in winter from the dry diet, and as the hens are partial to it, the result will be beneficial in many respects.

#### BREAKING THE SITTERS.

Too much cruelty is practiced in breaking up sitting hens. While we believe it unwise to break up a sitting hen, yet there is a humane way of so doing when it is desired. Make a lath coop, with lath sides and lath bottom. The object should be to give the hen cool air under her. She will attempt to create heat with her body on the floor, as is natural, but will soon become disgusted and abandon the attempt.

#### CORRESPONDENCE.

**GAPES IN YOUNG CHICKS.**—In the issue of June 15th I saw an article entitled "More About Gapes," which says: "Gapes is due to the clogging of the windpipe by a cluster of thread-like worms. (This much is an established fact.) How they get in the windpipe of the chicks has not been definitely determined, but it is believed that they or their eggs are picked up by the chicks from the ground." What an absurd idea! Chicks will pick up worms, grubs and insects, but they are never deposited in the windpipe. How many of your readers believe such a silly story? Perhaps not one in a thousand will give it enough thought to form an opinion, but take it for granted that the editor is right, that there is no help for his chickens, and he will stay in the same old rut from year to year. The main remedy for a century or more has been to draw the gape-worms from the windpipe. Another plan is to place the chicks in a box and dust fine, air-slaked lime over them. These remedies are about as ineffectual as they are cruel. Gapes is a lung trouble; so is bronchitis and consumption in the human family. Would a doctor subject you to such barbarous treatment? Not much, for he would not feel himself safe from assassination if his patient

#### I Cure Dyspepsia, Constipation

and Chronic Nervous diseases. Dr. Shoop's Restorative, the great Nerve Tonic, by a newly discovered principle, also cures stomach, liver and kidney diseases, through the nerves that govern these organs. Book and samples free for 2 ct. stamp.  
DR. SHOOP, Box B, Racine, Wis.

should not recover. Roup, cholera and gapes are the enemies of the domesticated feather tribe. These diseases may be traced to want of shelter, nourishing food, lice and filth. The frequent occurrence of these diseases is a disgrace to any poultry-yard. To prevent gapes in chicks, breed from none but healthy fowls. The kinds that fledge slowly are best in this respect. They and their habitation must be kept free from filth and lice. In setting hens one rule must be adopted. The nest must be on the damp ground. Where a hen steals her nest in a fence corner, she has hardly anything but Mother Earth. Did you ever notice that chicks so hatched have better constitutions than when they are hatched on a high, dry place. Trying to keep the eggs and nest dry has ruined many a brood. Never take chicks away from the mother as they are hatched, for there is no heat like the mother hen to nourish them. For the first twenty-four hours they require no food. The first feed should be yolk of egg and bread crumbs, fed dry. Feed often, seven or eight times a day the first week. The next month, five times a day, as much as they will eat, of a variety of nourishing food, and provide a never-failing supply of clean, fresh water. For the first week coop them on a grass-plot, where the old fowls cannot reach them. After that age you can coop them in a yard (20x30 feet for sixty to seventy chicks) with small trap-doors for the chicks to run in and out. This yard is used for feeding and water, and must be kept clean. Cracked corn is the main feed, bruised oats and other small grains for a variety, with cooked potatoes mixed with bran, and white middlings for the first feed in the morning. If on the range where the chicks roam there is a scarcity of insects and worms, animal food must be given in the shape of meats of some kind. To keep them in perfect health, put camphor or camphorated spirits in their drinking-water.  
Ferndale, Pa. R. R.

[The above is presented because it contains some excellent hints on feeding chicks; but our correspondent is in error otherwise. It has been demonstrated that the gape-worms lodge in the windpipe, as they can be pulled out and seen. Hens have also hatched strong chicks on hay-lofts, where it is dry.—ED.]

#### INQUIRIES ANSWERED.

**Chiggers.**—E. W. C., Sisco, Fla., writes: "1. Is there any remedy against chiggers, which infest this section? They annoy the poultry. 2. What is the cause of the swelling of the crops of chicks with wind?"

REPLY:—1. As they are so numerous, it is useless to attempt to get rid of them, others coming as soon as the first lot are driven off. 2. It is caused by indigestion and overfeeding.

**Proportionate Space.**—E. T. L., Marion, Ind., writes: "How large should a yard be for a flock of twenty-five hens?"

REPLY:—A yard 50x100 feet, which is about one eighth of an acre, is sufficient, but it is better to divide the space into two yards, each 25x100 feet, so as to grow green food on one while the hens occupy the next, changing from one yard to the other as occasion requires.

#### LANDS FOR SALE.

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**HOME STUDY.** Book-keeping, Penmanship, Business Forms, Arithmetic, Shorthand, etc., thoroughly taught by Mail at student's home. Low rates. Cat. and Trial Lesson for 6c. Bryant & Stratton, No. 449 Main St., Buffalo, N. Y.

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For Cholera. For Lice. For Chicks.  
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F. A. MORTIMER, Pottsville, Pa.

**HENS** must lay and Chicks will grow if fed on Boiled Beef and Bone Meal, enough for 12 Hens, 100 days, only \$1.00 Sample Free.  
Smith & Romaine, Sole Mf's, 109 Murray St., N. Y.

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**\$20 to \$60 Saved on New BICYCLES**  
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If afflicted with sore eyes use **Dr. Thompson's Eye-Water**

MENTION THIS PAPER WHEN ANSWERING ADVERTISEMENTS.

Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge.

Milkweed.—G. H., Lane's Mills, Pa., writes: "Can you tell me any way to kill or get rid of milkweed?"

REPLY:—Rotation of crops, with thorough cultivation of all hoed crops, usually keeps the milkweed from becoming troublesome.

Sowing Onion Seed in Summer.—J. H. F., of Virginia, writes: "You recommend to start plants in hotbeds in order to raise a large crop."

REPLY BY JOSEPH:—If you wish to use the crop for early bunching, I believe you can safely sow seed late in summer or early fall.

Flea-beetles on Tomatoes.—A. M. B., Randolph, Vt., writes: "Our tomato-plants are covered with a little black bug or fly, that eats holes through the leaves, causing them to turn yellow and dry up."

REPLY BY JOSEPH:—The insect is probably a flea-beetle, and not easy to conquer. Try spraying with a strong tobacco tea, or dusting with a strong tobacco dust.

The Souring of Milk.—J. A. C., Lithopolis, Ohio, writes: "The FARM AND FIRESIDE, quoting from the New York Sun, is in error as to the souring of milk in a thunder-storm."

REPLY:—To what is the lactic acid due? Investigators no longer question the fact that the normal souring of milk is a fermentative process produced by micro-organisms.

Gathering Potato Seed.—M. H. M., Martha, Tenn., writes: "When should potato balls (Irish) be gathered, and how and when should seed be planted to produce the best results?"

REPLY BY JOSEPH:—When the potato balls begin to color, showing that the seed in them is mature, they should be gathered, mashed, and the pulp allowed to stand and ferment for a day or two.

VETERINARY.

Conducted by Dr. H. J. Detmers, Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge.

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.

Spavin.—G. A., Harrison Pike, Ohio. This is not the proper season for the treatment of spavin and ringbone.

15th, or wait until late in the fall, when you will find another article concerning these diseases.

Hollow-horn.—A. K. S., Siler City, N. C. There is no such disease as hollow-horn. All horns of grown cattle are hollow.

Drying Up.—G. S., Chesterfield, Ill. Your young cow, when you took away her calf, not being accustomed to milking, probably drew up the milk, and then milking was neglected.

Lame.—G. W. F., Leou, Wis., writes: "I have a mule that has wind-puffs on one front leg. She is lame. I have used hot water and blister liniment. It improves very slowly."

ANSWER:—The "wind-puffs," or so-called "wind-galls," most likely have nothing to do with the lameness.

Probably a New Case of Garget.—Th. W. K., Clyde, N. Y. The remedy, unless it is too late, consists in frequent and thorough milking.

An Old Sore.—J. F. R., Delavan, Kan., writes: "My five-year-old road mare got cut two years ago directly in the front of the hock-joint."

ANSWER:—If you blister such an old sore it is sure to crack and to get raw. It is the worst you can possibly do.

Wants to Know What Ailed His Horse.—E. W. M., West River, N. Y., writes: "I would like your opinion in regard to what ailed my horse."

ANSWER:—Your horse, it seems, suffered from a severe intestinal catarrh (Catarrhal enteritis) either as an independent disease or as a complication of influenza.

Troubled with Flies.—G. S., Grand View, Ind., writes: "My horse's eyes get sore in the lower corner. The flies bother them so bad."

ANSWER:—Keep the sore eyes clean, and if the flies then don't stay away, make your horse a veil of mosquito-bar, or else apply to the troubled corners a little gentiana extract.

Contracted Tendons.—G. H., Lane's Mills, Pa., writes: "My colt, one week old, cannot straighten his front legs enough to stand up on them."

ANSWER:—If the tendons are too short, contracted, probably a surgical operation, will be necessary.

An Enlargement.—Mc., Moruing Sun, Ohio, writes: "Please tell me what will remove a lump from one of the fetlock-joints of my mare."

ANSWER:—If the "lump" is a tumor, the only way to remove it will be by a surgical operation; that is, by excising it.

Trouble in the Ears.—E. E. P., West Point, Cal., writes: "I have a mare that has some trouble in her ears. The ears are so very tender she won't let us touch them."

ANSWER:—An answer to your question requires an examination, or, at any rate, a good description.

examination, the only way is to throw her, which will compel her to submit not only to an examination, but also to a thorough cleaning, if necessary, with soap and warm water.

Lameness.—G. P., Forestburg, Texas, writes: "I have a mule, four years old, that got lame last February in her right hind leg."

ANSWER:—If you don't know what caused the lameness, how can you expect me to tell you? If you used the mule to a scraper or ditching-machine, and overworked the same, it may be that tendons, ligaments or muscles became overstrained.

Urticaria.—D. B. H., Centreville, Pa., writes: "What ails my mare? There appear lumps the size of half of a grape, which flatten out and spread to two or three inches in diameter."

ANSWER:—What you describe seems to be a simple case of urticaria. First, give the mare a physic—one pill, composed of one ounce of aloes, a few drams of powdered marsh-mallow root, and a very small amount of water.

Milking-tubes.—F. W., Bryan, Tex., writes: "Some time ago I saw an advertisement in a paper of a cow-milker. I sent on for circulars and found that the instrument consists of four small tubes which are inserted in the teats of the cow, and run in a larger tube."

ANSWER:—As yet no way has been devised, and probably never will be, by which the trouble of milking milch cows may be done away with.

May be Diabetes.—Farmer, Lansingville, N. Y., writes: "I have a four-year-old horse that has a bladder or kidney difficulty. He is in good order, running in pasture and worked occasionally."

ANSWER:—The disease you describe seems to be Diabetes insipidus, and it undoubtedly is if the food you feed is dusty and musty.

NEWTON'S HEAVE, COUGH and DISTEMPER CURE.

Advertisement for Newton's Heave, Cough and Distemper Cure, featuring an illustration of a horse and rider. Text includes: "A GUARANTEED HEAVE CURE. Positively Cures HEAVES, COUGHS, COLDS, DISTEMPER, Indigestion, Skin Eruptions, (Worm Expeller), and a grand conditioner."

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fire of a fierce, new awakening love burning in his eyes.

Slowly a ripple of laughter breaks from her as she raises her hazel eyes to his brown ones. "Well, monsieur, as you know this comedy so well, what then?"

What does Raoul see in their changeable depths, that, heedless of the delicate porcelain she holds, he springs forward and catches her in his arms—forgetful of all that has passed in these ten years—kisses her, not once, but again and again.

Valerie does not seem displeased at such a proceeding, nor does she seek to free herself from the prison of his strong embrace; only a few minutes afterwards she says:

"Ah! M. le Viscomte de la Sainte Cœur, ten years ago I told you I would be revenged. I have made your noble self fall in love with the actress, the Citizeness Valerie. I have given you 'Tit for Tat.'"

For answer he holds the slender figure closer in his arms and gazes with untold love at the lovely laughing face upturned to his.

"You have made me fall in love with the noblest woman this earth possesses," he says passionately, and Valerie is silent, for at last her vengeance is complete.—*San Francisco Examiner.*

THE IMPERIAL DRAGON.

The combination of circumstances that served to bring Miss Damon to L—, moneyless but determined, was known to nobody. All that any one knew of her was imparted by a brief statement made by the editor of the Dispatch to the effect that on a certain blustering afternoon in January she had walked into the office and asked for employment. He declined her services, with thanks, but she came again and again, until one day she found a vacant desk, sat down at it, and had been there ever since.

She wrote two or three caustic articles, struck at one or two local atrocities, and in a little while made an enviable reputation for bitterness and cynicism. Her name got out, and after that everything that appeared in the paper was unhesitatingly set down to her credit.

She was not known outside of the office, but the impressions that prevailed concerning her were not flattering. It was generally agreed that she knew too much to be young, was too cynical to be agreeable, and there was a theory current among the paper's readers that she had been crossed in love and disappointed in her literary aspirations. She did her work in the daytime, and was little more than a myth to the men who spent their nights in journalistic harness. They were frequently questioned about her, and they generally answered all queries by the broad-meaning statement that she did not "run with the gang."

Soon after she began her mark in her new sphere, a book of verses appeared, written by a gentleman of L—, George Lawrence. Copies were sent to all the papers, and one of these fell into the hands of Miss Damon. She prefaced her criticism with the remark that the verses were not uniformly bad, but ranged from bad to very bad, and then mercilessly impaled the author to the extent of three quarters of a column.

Lawrence had never forgiven her. He referred to her ever afterward as "The Dragon" and the "Imperial Dragon." The name seemed appropriate, and it was generally adopted. The criticized versifier experienced some satisfaction at having thus baptized her with indignation, but he by no means considered himself avenged, and at the mere mention of her name his muscles grew rigid, and every artery throbbed with a wild desire for vengeance. Being clever with a pencil, he made a sketch of her, which embodied the popular impression that she was a shrewish person of uncertain age, and it was a source of endless amusement to himself and friends. It must be confessed that Miss Damon's was not the only adverse criticism, and Lawrence was a good deal impressed, but not wholly subdued. He did not intend to be snuffed out in this summary fashion, however, and though for a time he attempted nothing in a literary way, he was casting about for a fresh motive, resolved at no distant date to make another effort. "The Dragon" had recommended prose; he would try prose.

In the meantime, summer had come, and Lawrence was to spend several months with some friends in California. When he returned he would go to work in earnest.

It was a glorious day, bright and cool, though it was the middle of July; the sun was just rising over the eastern rim of the cup-shaped valley, a luminous mist shading from pink to purple was rolling away from Pike's Peak, and the bits of sky showing between the serrated ridges opposite were deeply blue.

Lawrence, on his way to California, had stopped to spend a day at Manitou. He had reached the springs the evening before, and was finishing his breakfast this bright morning in the great Sahara of a dining-room when the waiter came in to announce the carriage he had ordered for the day. For the last half hour the gallery in front of the hotel had been thronged with tourists ready to begin the day's sight-seeing, and the double line of vehicles drawn up outside were being loaded with all possible dispatch. As Lawrence emerged from the dining-room the last wagon drove up to the door, and a lady was

on the point of getting in when the driver said:

"Beg your pardon, ma'am, but this carriage is for the gentleman."

"But I ordered a carriage for this morning."

"Your order was too late. They were all engaged. This was the last one in the stables. I can give you one to-morrow."

"I shall not be here to-morrow."

"Maybe the gentleman's going to stay over a day or two, and would just as soon drive to-morrow," suggested the driver.

By this time Lawrence had come up.

"If you can give me a horse and saddle it will answer my purpose just as well," he said.

"I haven't got a horse."

"As I leave to-morrow on the early train," said Lawrence, "I cannot conveniently postpone my drive. But we are probably going in the same direction, and I should be delighted to accommodate you with a seat in the vehicle."

There was nothing else to be done. She accepted, with thanks. Lawrence handed her into the carriage, and thought, as their eyes met, that she was not an unpromising companion. He was a gregarious animal. He hated being alone, especially in a crowd, and a chance acquaintance was not to be despised. He handed her his card. She looked at the name, raised her brows slightly, dropped the card into her hand-bag, and then, looking squarely at him, said:

"My name is Vincent."

He called her Miss Vincent at a venture. She did not correct him, and they fell to discussing the points of interest on the way.

It was a delightful drive, and neither regretted the circumstance that brought them together. They dined at the same table, finished up the sights in the afternoon, and, getting in rather late, took supper, tete-a-tete in a corner of the deserted dining-room. That evening the rooms were cleared for a ball. He met her at the door as she was about to enter the ball-room.

She wore a dress of black lace with a sleeveless corsage that displayed a pair of superb arms and a smooth, white neck. The sharp contrast of her hair and dress with the singularly fair complexion made her look like a black and white cameo, and he thought, as he stood there looking past her into the ball-room, that no carving could be more classic than her profile.

"Shall we go in there?" she asked. "It seems dreadfully warm and crowded."

"Then suppose we stay here."

"I believe it is much pleasanter here," she answered.

The ball-room was full of promenaders. They passed out on the veranda and sat talking in the moonlight. Occasionally they would return and beguile the intervals, waltzing when the music permitted, until the crowd of dancers began to thin and the parlor clock struck one.

"I really must go now," said Miss Vincent, rising. "There is one o'clock, and I must leave at eight. Good-night."

"Which way do you go to-morrow?" asked Lawrence.

"East. I must be home by the twentieth."

"And where is home?"

She gave the name of a village about fifty miles distant from the town where he lived.

"I'll see you in the morning," he said. "I believe we leave this place on the same train, so I won't say good-by. And now, just one more dance—the last."

Down the long gallery they floated into the shadow and out into the light, his clasp gradually tightening as they went, her face against his shoulder and his head bent forward until his cheek touched her hair. The music ceased suddenly, but the arm about her waist did not relax. She gave a furtive, upward glance, then dropped her eyes. With a swift movement of his left hand he drew her arm up until it encircled his neck, leaned forward and kissed her. She darted away like a swallow, and he caught a last glimpse of her as she turned the corner of the stairway.

When Lawrence came down to breakfast it was nearly nine o'clock. The early train had gone. So had Miss Vincent.

It was summer again. The work Lawrence contemplated a year ago was finished. He had acted on the suggestion of his critic. He had turned Pegasus out to graze, and given his attention to prose. The result was a novel—the story of a day—called "En Route," which he assured his friends was suggested by an incident of his western trip. The book had been published, and the reviewers, to use his own phrase, had "let him down easy," and he was much surprised to find himself gently and affably treated by the Dispatch. The writer was not surprised to find so indifferent a poet capable of producing a tale so pleasing and graceful, so full of felicitous description, so fresh and unhackneyed. It was understood that the young man was under a solemn promise never again to attempt verse, and, in consideration of this assurance and the promise of success held out by the latter work, it was but just that the public should extinguish its resentment and take the author to a forgiving and indulgent bosom.

There followed a criticism in which the claims of the book were seriously treated, and by the time Lawrence had finished the perusal he was thinking that, after all, he might have been a little too fierce in his resentment upon a previous occasion. There



Teach all of the family to swim; bathing suits are easily rigged up and an open air bath gives both fun and health. Then what is more refreshing in the cool of the day than a good swim? But don't forget the Ivory Soap, any other will slip away and sink before you are half through with it. You need not be afraid of losing the Ivory; throw it up stream and it will be back to you by the time you are ready for it again. Ivory Soap is pure. It floats.

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arose within him a desire to make amends in some way for his own derision of this person, who, however hard upon him at first, was clearly without malice in the matter, and had, no doubt, in each instance expressed an honest conviction. He wrote a note in which he acknowledged the courtesy and asked leave to call and thank the writer in person. He had a few copies that had been handsomely bound, intended as souvenirs for his friends. He would be most happy to present one as a token of his appreciation.

The reply to his friendly overture was written upon a card, across the upper left-hand corner of which was the day of the week in gilt lettering; on the opposite corner was a pen-and-ink sketch of St. George in the act of vanquishing the dragon. Below was written:

Miss Damon will be at home to Mr. Lawrence this evening at eight o'clock. 705 West Broadway.

This sketch, despite the limited space it occupied, was spirited, and indicated a knowledge of her unflattering sobriquet. As he looked up at his own sketch upon the wall he was conscious of a strong impulse to destroy it.

At eight o'clock that evening Lawrence, bearing his peace offering coquettishly bound in gilt and morocco, rung Miss Damon's bell. He was ushered into the parlor, and in a few moments he heard a rustling of drapery behind him. As he arose he encountered a slender figure in a toilet of black lace.

"Miss Vincent," he said exultingly, "I have been looking for you everywhere. I have written you innumerable letters, and have been four times to that horrid hole of a town where you said you lived. Why did you deceive me so cruelly?"

"Why did I deceive you? Well, I did not think it would add anything to your pleasure just then to know the truth."

A horrible presentiment seized him.

"Then—then—your name—is not Vincent."

"Yes, Alice Vincent-Damon."

"You know me, of course?" he faltered.

"Yes."

"Don't you think you have taken a rather mean advantage of me?"

"No; I think the truth would have spoiled a very pleasant day."

In the conversation that followed the purpose of the visit was well nigh forgotten, and the souvenir played a very inconspicuous part in the diversion of the evening.

A week or two later, as Lawrence was sitting in his room, his friend Harrison came in, took a seat on the opposite side of the table, and after gazing at his host for some time with a most lugubrious expression, said:

"Old man, is this all true that I hear about you?"

"What did you hear?"

"That you had actually caught the dragon." Lawrence laughed.

"What does it mean?" persisted Harrison.

"It means that at last I am about to take my revenge. I intend to marry her."

Lawrence made this announcement with dramatic intensity, and Harrison, who had arisen, dropped limply into a chair. After a pause he pointed to the sketch on the wall and asked pathetically:

"I say, Lawrence, does she look like that?"

Lawrence reversed a photograph that was standing on the mantel-piece with its face to the wall, and holding it before Harrison, said: "She looks like that, and she is the heroine of my story."—*Waverly Magazine.*

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Our Household.

IF WE ONLY COULD.

If we all had our lives to live over again—
Ha! ha! if we had, but we haven't you know—
We'd all be such wonderful women and men
That life would be robbed of its worry and woe.
As a matter of course, the dull things we have done,
Could we try once more, we would carefully shun;
The skies would be bright to each sorrowing one
If we all had our lives to live over again.

If we all had our lives to live over again—
Ha! ha! if we had, but we haven't you know—
We'd make it a vision of happiness then,
And fate would her kindest favors bestow
If we could only run this fair, strange, mythical race
At some other time and in some other place!
Oh, couldn't we make earth a lovable place
If we all had our lives to live over again?

If we all had our lives to live over again—
Ha! ha! if we had, but we haven't you know—
We'd carefully study the why and the when,
And make us a friend where we now have a foe.
But the edicts of nature we cannot resist;
'Tis folly vain wishes to sadly rehearse,
And—we might make existence a thousand times worse
If we all had our lives to live over again.

SUMMER DRESS.

As the season advances and prices lower, one is often tempted to indulge in a few more additions to the wardrobe. Silks are now cheaper, and if made late, serve to open another season with, at all events.

The silk waist of which we give an illustration can be fashioned in gay plaid silk and will finish out the season, and serve for a beautiful house waist through the winter. The only trimming is of silk cords arranged carelessly upon it. The bouffant sleeves are large, only more so, and give a very stylish look to the whole waist. Whatever is skimped about it, it must not be the sleeves.

The house dress of any soft wool can be trimmed with wide lace and black velvet. This is a very striking trimming, and one that we need not fear to put money into,



HOUSE DRESS.

as it can be used again. A very pale gray trimmed in this way is a very effective costume. The caps over the sleeves should be of the material untrimmed. Many use the goods with the selvage edge as an over-the-shoulder ruffle; this makes the goods lay soft and pliable.

The cape with storm-collar will be found a useful adjunct to one's toilet as the cool nights of late summer come on. In August especially the nights are very cool, and the advantage of a large turned collar is untold, and must be worn to be appreciated. The main cape can be of cloth and the collar of velvet. It is best to provide them in season, so as to be ready for the change. L. L. C.

PICTURES BY AN ENGLISH ARTIST.

Not by an artist who uses brush and paints, but only words.

Do you prefer an author who shows you unfamiliar things? Or do you like one who can translate into new meaning the objects which surround you? At different times you may find delight in both. The one who describes new scenes enlarges your knowledge. The one who beautifies common experiences enhances your contentment.

Certainly all persons who live in the country must enjoy the writings of Thomas Hardy, the English artist referred to. He has studied nature till he knows her every mood. He seems to care nothing for the houses of the city streets. All his stories happen in country places. If he painted his pictures on canvas, they might be collected in a London gallery, with a few stray specimens in private studios, but the literary artist can be enjoyed in all remote corners of the world, and the light required for his pictures may come through a kitchen window or from a common lamp.

A habit of learning to see the pictures which life spreads before us results in a pleasure which is refining, amusing, inexpensive and unerring. If any close observer, instead of being content to say that a day was "fine," or "stormy," would describe the prominent features of each, in simple but well-chosen words, he would be an artist.

Take a few sketches from Mr. Hardy's pen.

"Winter, in coming, advanced in such well-marked stages as the following: The retreat of the snakes; the transformation of the ferns; the filling of the pools; the rising of fogs; the embrowning by frost; the collapse of the fungi; an obliteration by snow."

Certainly every farmer will say that Hardy is a close observer.

Take this pretty picture of a spring scene:

"The sheep-washing pool was a perfectly circular basin of stonework in the meadows, full of the clearest water. To birds on the wing its glassy surface, reflecting the light sky, must have been visible for miles around as a glistening Cyclop's eye in a green face. The grass around the margin was a sight to remember. Its activity in sucking the moisture from the rich, damp sod was a process observable by the eye. The outskirts of this level water meadow were diversified by rounded and hollow pastures, where just now everything that was not a buttercup was a daisy."

One very exciting picture is of a flock of sheep in a clover-field. The animals were "getting blasted."

"One of the ewes contracted its muscles horribly, extended itself, and jumped high in the air. The leap was an astonishing one. The ewe fell heavily and lay still."

Fifty-seven sheep were suffering in the same way. Happily, before they reached the fatal stage a wise and expert farmer arrived.

"He flung off his coat, rolled up his shirt sleeves, and took from his pocket the instrument of salvation. It was a small tube, or trocar, with a lance passing down the inside. He began to use it with a dexterity that would have graced a hospital surgeon. Passing his hand over the sheep's left flank, and selecting the proper joint, he punctured the skin and rumen with the lance as it stood in the tube; then he suddenly withdrew the lance, retaining the tube in its place. A current of air rushed out the tube forcibly enough to have extinguished a candle held at the orifice."

You will be pleased to know that of the fifty-seven sick sheep forty-nine were successfully treated, and three recovered without an operation. In only one case was the lance misplaced. Four died before the remedy was applied.

As naturally as Rosa Bonheur pictured sheep with her brush, Mr. Hardy puts them before our imagination by means of fitly-chosen words. This is an excellent description of one freshly shorn:

"The clean, sleek creature arose from its fleece—how perfectly like Aphrodite rising from the foam, should have been seen to be realized—looked startled and shy at the loss of its garment, which lay on the floor in one soft cloud, united throughout, the portion visible being the inner surface only, which, never before exposed, was white as snow and without flaw or hlemish of minutest kind."

Mr. Hardy does not care to describe costly clothing or expensive furniture. The realities of nature, the things near the soil, are dear to his heart. Beauty of face, both spiritual and physical, appeals to him strongly. The force of human passions, the

pain and beauty of love, the stubbornness of self, he paints as plainly as he does a calm or tempestuous landscape. It is impossible in one column to do justice to his genius. I can but attract attention to his skilful art.

In conclusion I copy a scene of a furze-gatherer's garden on a very hot day. It is a vivid picture.

"There lay the cat asleep in the bare gravel of the path, as if beds, rugs and carpets were unendurable. The leaves of the hollyhocks hung like half-closed umbrellas, the sap almost simmered in the stems, and foliage with a smooth surface glared like metallic mirrors. A small apple-tree of the sort called Rotheripe grew just inside the gate, and among the fallen apples on the ground beneath were wasps, rolling drunk with the juice, or creeping drowsily about the little caves in each fruit which they had eaten out before stupefied with the sweetness. By the door lay a furze-hook and a bundle of fagots."

KATE KAUFFMAN.

HELP FOR GOOD HOUSEKEEPERS.

I call this letter by the above title, because it is a help to know, when you are trying a recipe, that it has been used over and over again without any failure. Since writing the preceding article for you our currant jelly has been made by the recipe given then, and it is beautiful, bright red and firm, without any toughness. If you, my dear good housekeepers, have tried this or any other of the recipes given in the last number of FARM AND FIRESIDE, you will not be unwilling to read these, and I hope will have sufficient faith to believe they will be equally useful to you. From me you shall have only such as I have well tested.

Canned pineapple is considered by many a great treat, and I am sure you would commend ours if I could hand you a sample, done by the following recipe: To can pineapple in the most appetizing way, select those which are just ripe—not soft. Pare, being careful to remove the dark eyes. Pick the apple off with a silver fork, as if you were scraping corn from the cob. To each pound of the fruit add three quarters of a pound of granulated sugar. Mix in your porcelain kettle one layer of fruit and one of sugar, and so on. Set on the back of the stove until it comes to the boiling point. Skim well; bring to the front and let it boil almost ten minutes. Put in self-sealing glass jars while very hot. Follow the directions about heating the glass cans or jars. Of course, you don't use the core of the pineapple, but save every drop of juice and do not add any water.

Raspberry jam made by these directions is excellent and unerring. Many persons, and good housekeepers, too, mix currants with their raspberries. We like ours better without them. Be careful, when looking over the fruit, that no decaying berry escapes your notice. To every seven pounds of berries we use four pounds of sugar. Put in your kettle a layer of fruit and sugar alternately. Set it back on the range until it begins to boil, skim well, and keep it boiling twenty minutes. Put in tumblers or bowls. After covering the surface of the jam with tissue-paper cut to fit, and dipped in brandy, then cover with letter-paper or stiff writing-paper and paste with ordinary flour paste. The mixture when done should be moderately thick. Occasionally the jam is too thick when taken from the glass; it may result from the quality of the sugar. We then make just enough syrup of sugar and water, boiled up once, to thin it to the desired consistency, and add to the jam before serving.

Green and yellow gages are generally ready for preserving about the middle of August, and are a delicious conserve. They are better done by this recipe than any I have ever tried. Wash and notice carefully, cutting out the very smallest speck of decay. Pack into your glass jars until they will hold no more. Make a syrup of half a pound of sugar to half a pint of water. Allow this measure for each quart jar; half the quantity if you use pint jars. Boil a few moments and skim. Pour over the fruit, filling the jars to the brim. Put on the lids, but not the rubber bands. Have your wash-kettle ready, put pie-plates

turned upside down on the bottom of the kettle. Set your jars on them and pour in the kettle cold water to the depth of half the height of the jars. After the water boils, let them remain in the boiling water ten to fifteen minutes. Remove one by one, wipe the edge dry and put on the rubber and lid as quickly as possible. Screw very tightly. Examine the next morning, and if possible, give the lid another turn.

Raspberry vinegar is one of our most cooling and delicious summer beverages. This is easily made, and with some of the fancy sweet crackers, bought in such variety and so generally used, is an excellent refreshment to hand a friend in very warm



CAPE WITH STORM-COLLAR.

weather. You know, my dear good housekeepers, that it is much easier to pour one or two tablespoonfuls of this into a glass and fill up with cold water, than it is to make lemonade, even if the lemons are at hand, and many prefer the raspberry vinegar. To each quart of berries, after picking over carefully, allow one pint of white wine vinegar. Mash together and let stand two or three days, stirring occasionally. Strain through a flannel bag and add one pound of white sugar to each pint of juice. Boil twenty minutes. Skim well and bottle when cold. Cork tightly. They need not be sealed. HOPE HOLIDAY.

DOXOLOGY AND OVERCOAT.

A New York clergyman, by an understanding with his organist, had the music suddenly cease in the midst of the final doxology. It was a grotesque scene which the sudden silence revealed. There was a man with his head under the seat looking for his rubbers; there another with arms outstretched working himself into his overcoat; there one reaching for his cane in the corner of the pew; there one stroking affectionately his beaver hat, and so on. The joke was quickly seen. The people who were in order glanced with pitying eye upon the friends whose dressing-room performances had been thus awkwardly arrested. A few calm words from the pastor sent the audience out with a new idea of the sacredness of God's house. The rebuke was deserved. Alas, we fear that in most of our churches the closing hymn has little of worship in it. Reader, think of this next Sunday when the concluding act of worship draws near. God is as worthy of the last act of worship as of the first. Wait till after the benediction before you begin your preparations to leave the sanctuary.

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## AUGUST.

The original Jews and Romans dated the beginning of the year from the first of March, making August the sixth month in their division of it. For this reason the Romans gave it the name *Sextilis*. In the year 30 B. C., it was changed to August, by the Emperor Augustus Cæsar, in honor of himself. Having gained several important victories in that month, he considered it a fortunate period of the year.

August is a month, however, that is always more enjoyable in the winter than at the time when it is present with us. By this I mean that "distance lends enchantment to the view."

When all the winds of Æolus have slipped from his control and are howling about our dwellings and down our chimneys, and as Bayard Taylor poetically expressed it,

"The wild white bees of winter  
Swarm in the darkened air,"

Our memories idealize the beauties of the vanished summer-time; and we are ready not only to cry out for June and "long for her pure white rose," but to welcome, also, the riper days which follow close on her glorious initiative.

If time and the world could only stand still at June, we should enjoy, so far as beauty is concerned, a perennial paradise. It is so full of exquisite promise and beautiful prophecy, which the consequent summer months, while they develop, cannot be said entirely to fulfill.

July and August, especially the latter, are seasons in which there is a sense of oppression in the summer's fullness. It becomes like an overblown rose, which is always less attractive than the half-disclosed, half-hidden blush of the bud. The foliage and vegetation has become coarser and less delicate. We see the progress of the fruit, where the blossom loosened its hold and fell away; and while we realize all the benevolent intentions and working philanthropy exercised by the late summer towards us, we do so without being able to admire its advance as fully as we shall appreciate its results.

There is a languor about August which affects humanity, in our climate, somewhat similarly to that of the very early spring-time, when everything may be said to be "between hay and grass." The leaves are ripening, some of them are becoming yellow and fluttering to the ground; but it requires the first touch of frost to breathe upon them renewed beauty, and like the tints of Titian, dash the canvas of nature with resplendent hues.

The mother dreads the coming of August, with its hot days and nights, and long list of infantile complaints for her child. The housewife feels the effect of the long stretch of non-abating heat, as a weary pedestrian does the hot march on the level of the dazzling road, where no shade intervenes. There are over-exertion and sunstroke and prostration from the heat to be dreaded, and prudently avoided. August is the time when there should

"Arrive a lull in the hot race,  
And an unwonted calm prevade the breast;"

For worry, bad at all times for the system, is worse when the system is depleted by the lassitude which attends extreme hot weather.

Happy that individual who is so constituted as to be able, at this season, like "the fat boy" in *Pickwick*, to take his "forty winks" on all occasions! Happy he or she who can retire into the sylvan shades of the country and swing in that boat of the air, the hammock; always providing that the mosquitoes do not descend on them in clouds, like the locusts upon Egypt.

Happy he to whose abode the ice man comes in the morning with great slabs of coolness, which he (the householder) knows how deftly to mingle with sugar and lemons, while he pities, with all his heart, those ancient Greeks who denied its cooling "ade," and the Romans to whom, in their *Sextilis*, the lemon was entirely unknown.

The summer romance is a great blessing; also a wardrobe approachable in thinness to those seven suits of Decca muslin worn by the Indian princess, whose father commanded her, in the interest of modesty, "Go back, my daughter, and put on seven suits more."

It is from July third to August eleventh that "the dog-star rages," and we have that weary period known as the "dog-days;" but, to be guilty of a bad pun, the twenty

additional ones which complete the thirty-one days allotted to August, are in many respects quite as *Sirius*.

What I have said in the foregoing is descriptive of the regulation Augusts of "ye olden times," which, however, have been so variable of late years that no weather prophet can be certain that any of his prognostications concerning this month will prove correct. But in the case either of heat or cold, certain resources are open to us in which we may find consolation. If hot, we can dwell on the temperature-lowering thought of Lieutenant Peary on his way to the north pole. If the reverse, we can muse on the situation in Hawaii, and wonder, if our government should annex it and its volcanoes, what effect it would have on the atmosphere.

MINNIE W. BAINES-MILLER.

## SOME THINGS EVERY COUNTRY WOMAN NEEDS.

She needs a stout pair of gloves for driving. Biartz is a good make, but in selecting them be careful to get a heavy grade, as they come in different qualities. They are buttonless, wear well, and cost but one dollar per pair.

She needs not many dresses, but a few well-chosen ones. Plenty of wash dresses for the house is good economy, and for these nothing is so pretty and satisfactory

rubber boots or boys' sizes; these are heavier and some think they wear better; get them and make a short skirt reaching a little below the knees.

Arrange your outdoor work so that one chore may be succeeded by another. Slip off your long skirts and shoes and don your new apparel; never mind if "Solomon in all his glory" was arrayed with the glory of common sense and comfort. Maybe you will go to the milk-house first, where you will splash around and scrub all you please without a fear of wet feet and soiled dress; then when you go to the chicken-yard "to fuss" with the poultry, the wet grass won't hurt you a speck. Then when you go to the garden for vegetables and berries for dinner, you will literally "bless your boots."

Then when you come in and exchange your outdoor costume for your dry dress and shoes, you will be reasonably proud of yourself, to think that you have been so sensible.

MARY D. SIBLEY.

## FRUIT DESSERTS FOR THE COUNTRY HOUSE-WIFE.

Many country housekeepers fail to derive the benefit they should from the fruits around them, both wild and cultivated, rarely preparing them in any way save pies or dumplings. Where milk and eggs are abundant many delicious fruit desserts

**FRUIT BAVARIAN CREAM.**—Cover half a box of gelatin with cold water and let soak half an hour, then set over boiling water and stir until dissolved. Whip a pint of cream, add it to the gelatin, mix well, and stir in a pint of any fruit juice desirable in which has been dissolved a cupful of sugar; pour in a tin pan, stand on ice, stir until it begins to thicken, turn into a mold and set on ice to harden. Serve with whipped cream.

**APPLE CHARLOTTE.**—Pare and steam six ripe apples until tender, press through a colander and add a cupful of sugar. Cover half a box of gelatin with cold water and let soak half an hour, add to the hot apples and stir until well mixed; pour in a tin pan, set on ice, let thicken, add quickly a pint of whipped cream; turn in a mold and stand in a cold place to harden.

**FRUIT SPONGE.**—Boil a pound of sugar and half a pint of water together until a clear syrup; pare a pound of apples, core, and slice into the syrup, set on the fire and stew until tender; cover half a box of gelatin with cold water, and let soak half an hour; add to the apples, press through a sieve; add the juice and grated rind of two lemons, and stir until cold and thick; beat the whites of three eggs stiff, stir into the apples and beat until cold, pour in a mold and set to harden. Serve with vanilla or lemon sauce. All kinds of berries and tart fruits may be used in making the sponge instead of the apples.

ELIZA R. PARKER.

## GOING TO CHURCH.

I wonder if all our FARM AND FIRESIDE sisters get off to church Sunday morning. I suspect if I would hear you, I should be greeted with a chorus of "Ah, no!" Well, I wish you might; I don't know why, but it seems to me that a woman has more need, more demand of spiritual affairs than a man has. Whether her trials are more perplexing, her duties more petty I cannot say, but I do believe that many a tired woman finds heart's balm as she listens to the voice of her pastor on a quiet Sunday morning. And as she greets old friends and looks into the faces of dear ones, hears the sacred music and good words, her soul is lifted up and out of its old self, and she is refreshed with a sweet contentment. I believe, too, that her life would be easier the coming week; that for a little good old-fashioned heart "religion," the household machinery would run all the smoother.

It will not do to shut everything outside out of our lives, thus leaving us in the same old rut. While I sometimes think that the saying that there are more farmers' wives in the insane asylums than any other class of people is but a stereotyped newspaper statement, yet I must acknowledge that such a condition might be very possible. Quiet is a restorer, but monotony is a destroyer.

But I started to tell you something. I know a little band of people, mostly women on farms, who do their own work and yet manage to meet for worship in a little church around the corner, and also twice a month for other meetings; some live six, some seven and some even eight miles from the church. Sometimes during the winter they take their dinners, and eat in the basement, which is fitted with kitchen and dining-room. I know sometimes it is almost impossible to get away, but in that case we should try to bring some new feature into the day and make it, as far as we possibly can, as God intended it should be, "a day of rest."

When we are away from home we often like to remember the people at home with some little gift. Sometimes it does not suit the convenience of one's pocket-book to remember each individual. Then why not buy something which will do for all? A pretty dish for the table, a picture, a vase or the latest book will be appropriate. A small sum recently invested in a glass rose-jar has brought not only fresh flowers to the table every day, but has brought pleasure to the whole family as well. By the way, why not make a practice of having flowers on the table each day, and have the table look as inviting as possible in other ways? It pays, with a big interest. For children, and even for grown-up people, a large doily may be placed under each plate. These are easily removed when soiled and fresh ones supplied, they being much more easy to wash than the tablecloth. If one always keeps her table set, it is a very good idea to have a cover for it. One that is easily made is of cheesecloth, hemmed and brier-stitched with turkey red.

M. D. S.



SILK WAIST.

as blue calico. Brilliantine is excellent for a general-purpose dress. It wears like iron, sheds the dust, is not easily soiled and will not muss.

She needs not an old, hot sunbonnet, which plays the mischief with her smooth locks and at the same time half smothers her, but a broad-brimmed straw hat, supplied with two hat-pins, which will safely anchor her hat in its proper place.

She needs two Martha Washington caps, one for sweeping and one for cooking. The former will keep the dust from her hair, and the latter will keep her hair from the cooking, for accidents will happen in the best of families.

She needs the patience of Job and the wisdom of Solomon.

She needs—now, just stop to think, how much she needs to be sensible in the way of taking care of her body and of her mind. Rest and change are the two guardians that will keep her safe. The rest may be but half an hour spared from each day, but let it be perfect, let it be absolute rest. The change may be but a walk to a neighbor's, a chapter from a good book, or anything that will relieve the mind from the routine of her daily life.

She needs—did you ever, my sister, go around with bedraggled skirts and wet feet? Skirts nasty and soiled around the bottom—wet and dirty, making you feel forlorn and wretched, making you a sorry spectacle to every beholder? Well, if you did and if you have, you need not do so any more if you will only provide yourself with a pair of rubber boots (get either ladies'

may be made at so small a cost, and so little labor, that there is no excuse for the family table ever being without them. Raspberries, currants, cherries and blackberries, all of which are now or soon will be in season, may be used to make Bavarian creams, blanc mange, charlotte russe, compotes, ices and other light, palatable dishes. The recipes here given will furnish a variety of dainty dishes for the entire summer.

**FRUIT BLANC MANGE.**—Put a quart of milk on to boil; mix a tablespoonful of moss farina in cold milk, and add to the boiling milk with half a cupful of sugar and one beaten egg; stir over the fire until the sugar is dissolved, take from the fire and add half a pint of raspberry, currant or blackberry juice, pour in a mold and set to harden. Serve with rich cream.

**FRUIT CHARLOTTE.**—Cover a fourth of a box of gelatin with cold water, and let soak half an hour. Whip a pint of thick cream, just off the ice, and set in a cold place. Put another pint of cream in a small saucepan and set on the stove to boil; beat four eggs and half a teacupful of powdered sugar together and add to the boiling milk, stir until thick; add the gelatine, take from the fire, stir in a pint of strawberries, currants or raspberries and half a pound of stale scraps of sponge-cake, broken in pieces; turn into a fancy mold and set on ice, stir occasionally; as the mixture begins to thicken add the whipped cream; set on ice to harden. Serve with whipped cream.

## Our Household.

### IT'S VERA WEEL.

It's vera weel, throughout the day,  
When ta'en up wi' wark or play,  
To think a man can live alway,  
Wi'oot a wify.

But it's anither thing at night,  
To sit alone by can'le light,  
Or gang till rest when sharp winds bite,  
Wi'oot a wify.

It's vera weel when claes are new,  
To think they'll always last just so,  
And look as well as they do noo,  
Wi'oot a wify.

But when the holes begin to show,  
The stitches rip, the buttons go,  
What in the warl's a mon to do  
Wi'oot a wify.

It's vera weel when skies are clear,  
When frien's are true and lassies dear,  
To think ye'll gang through life, nae fear,  
Wi'oot a wify.

But clouds will come the skies athwart;  
Lassies will marry; frien's maun part.  
What then can cheer your saddened heart?  
A dear wee wify.

It's vera weel when young and hale,  
But when ye're auld and crazed and frail,  
And your blythe spirits 'gin to fail,  
Ye'll want a wify.

But mayhap then the lassies dear  
Will treat your offers wi' a sneer,  
Because ye're cranky, gray and sere—  
Ye'll get nae wify.

Then haste ye, haste, ye silly loon,  
Rise up and seek about the toon  
And get heaven's greatest earthly boon,  
A wee bit wify.

—Wallace Dunbar, in *Amusing Journal*.

### HOME TOPICS.

**UNFERMENTED WINE.**—The pure, fresh juice of the grape cannot be too highly recommended as a refreshing beverage, and is especially valuable for invalids and convalescents. Much that is sold under the name of unfermented wine is not pure and contains at least a small per cent of alcohol. It is just as easily prepared at home as grape jelly, and may be kept perfectly fresh and nice for an indefinite period.

Pick the grapes from the stems, wash them and put them in a preserving-kettle. Mash them to get enough juice to start them cooking without adding any water. As soon as they boil up well, strain the juice through a jelly-bag. To the juice from twenty pounds of grapes add three pounds of sugar. Heat the juice again to the boiling point, skim, put it into glass jars or bottles and seal immediately. As it will not keep after being opened it is best to put it into pint or quart jars or bottles. If bottles are used, put in new corks, tie them down and then tie a piece of cotton batting over the top. This will effectually prevent all fermentation. If you have an Enterprise fruit-press, of course the juice can be pressed out without scalding the grapes. In this case, strain and finish as before. This grape juice makes a nice pudding sauce.

**A USEFUL PASTIME.**—Many boys and girls are interested in making collections of postage-stamps. The value of these collections will be much enhanced if in connection with the collection of stamps of any country the history, customs, etc., of that country are learned.

There are a number of very interesting and instructive collections that children in the country can make, and the long summer vacation is a good time to begin something of this kind. A collection of the various grains and the different varieties of each is one. Put the samples in small glass bottles, corked, labeled and numbered. In a book, write under each number all you can learn of the origin, history, mode of culture, soil and climate best adapted and uses of that sample. It is surprising how interesting the work will grow and how much valuable information will be gathered.

Another interesting collection is of the different kinds of wood. A small section of the bark, a thin cross section and a lengthwise section of the wood and a leaf of each variety should be glued to a card and the name and number written on it. A book similar to the one on grains should be kept.

Children should be encouraged to use their eyes and to exercise their natural curiosity in learning the habits and characteristics of the denizens of field, forest and stream. It takes time, patience and courage, but the mother who seeks to

interest her children in the beautiful and wonderful things that need but an earnest, watchful eye to discover will be well repaid. Nature's treasure-house is inexhaustible, and to him who early learns to read her secrets is given a never-failing source of entertainment and instruction, besides the acquisition of habits of observation which will be invaluable through life.

MAIDA McL.

### ARRANGEMENT OF THE HAIR.

With the return of many of the old fashions in dress, we will have to accept the former styles of wearing the hair. The tangled style will soon have to give way to the parted, smoothly-banded hair we can remember our mothers and grandmothers wore, and really, nothing was ever prettier. It brings to many of us a pleasant recollection of the sweet, peaceful face of mother or aunt who wore that style of hair.

The blousy, fussy, blowy style of the present day has been adopted by old and young, and it is rare to see plain hair now. The puffs and rolls at the back are very airy for summer. The strand of hair is rolled on the finger, fastened with cap wire and pin in place. This is not so heating to the back of the head as cushions and coils.

A moderate use of the hot iron to curl has a beneficial effect upon the hair, in some cases inducing rapid growth.

Everyone should select a style becoming to them and adhere to it, as one style will not suit all faces. A slim face looks better with side bangs curled; a fat face should have only a few on the forehead. The very heavy curled bang is very little worn, and

soap-dish, but it will keep feet and fingers smooth and dainty, and, by the way, there is no reason why the feet should not be kept as dainty as the hands. They are certainly much less exposed to changes of temperature than the latter, and from the greater heat, the skin should be softer and finer.

**THE USE OF POWDER.**—A shiny face is simply vulgar, and a little powder, carefully put on, will be a great relief. Be careful to get it the right shade. A pink or white powder on a dark skin is an abomination. Get it to match your skin; put it on in a strong light, where any bit too much will be plainly seen. Wipe it over with a handkerchief, for that removes it lots better than charcoal, and no one will ever notice it. Be careful that none sticks to your eyebrows. That is vulgar, and don't let any get near your lips, for it will make your teeth look yellow.

**PERFUME.**—It is dainty to use always the same perfume, until it becomes as characteristic of you as your smile. Tiny, flat silk bags, containing perfumed powder, stitched in your bodice and here and there in your gown, will be found delightful.

### WHY YOUNG TURKEYS DIE.

I think I have solved the problem of the great mortality among young turkeys. Some of my neighbors raise them without any difficulty whatever, while they just die off by the dozens for others. I am in the business myself this summer, not on a very extensive scale, but quite large enough to learn on. In the first place, I think turkeys should raise the little ones instead of chicken hens, and the eggs should be

world, and every two hours at most, come around for their regular feed of scraps of bread left from the table, or corn-meal, though they do not like that very well. Curd from sour milk is good with other food, if not scalded too much, which makes it tough.

I have in mind a place where the little turkeys die nearly as fast as they are hatched out. I do not mean that young, but after they are a few weeks old. The hens are kept in coops, no boards under them, the ground is flat, no grass, and the poor little turkeys run around, or rather, stagger around, looking so pinched and feeble that it is pitiful to see them, and the smell arising from the coops where the turkeys are obliged to stay, at least at night, is dreadful. The rains keep the flat ground soaked with moisture and—well, how could they live?

I have not lost one, and grow—we can almost see them grow. They are all feathered out and the happiest things on earth. So hereafter I shall just pin my faith on these two things, in success with turkeys, cleanliness and frequent feeding, at least while feathering, as they require a good deal of food to supply the feather growth. More some other time, for my pets want something to eat.

A. M. M.

### A WORD TO THE GIRLS.

Girls, do you know how much more your brothers know about some things than you do—things which are just as necessary for you to know as for them? I have reference to your lack of ability to express yourselves in regard to distances and measurements.

"How far," asked a lawyer of a woman witness, "was the man from your house?" "About as far—as far," hesitated the witness, "as from here to the other side of the street." A man would have given no such answer, but would have stated the distance approximately in rods or feet.

"I wish you would make this shelf about this much shorter," said a woman to a cabinet-maker, as she measured off the distance on the hem of her apron. The man laughed good-naturedly and said, "That's just like a woman, no idea of feet and inches."

"I have no idea whether there are fifteen or thirty acres in this field," said Mrs. Farmer, as she was driving along the road with her husband. "I have no conception of such measurements."

A teacher once tried the following experiment with a mixed class: "Go to the board and mark off a distance of six feet; use no guide excepting your eye." The result of the marking was that the boys varied but an inch or so from the required measurement, while the girls missed the mark woefully, an over or under estimation of two or three feet being not exceptional.

The difference all comes in the training, for of course a girl is just as capable as her brother in such matters, as far as ability is concerned; the only difference is that she is not taught to observe. A good way to aid yourselves, girls, is to obtain by actual measurement a certain distance, say from the porch to the gate, or take the width of the walk, compare with the eye other distances which are adjacent, and you will be surprised how quickly the eye can train itself.

The power of observation is valuable, and if it is dormant it can be cultivated with a little patience.

A great deal of interest was manifested in an observation class on Friday afternoons at school. Each pupil asked a question regarding some familiar surrounding. "Is the tree by the school-yard gate walnut or maple?" "What is the color of the pump?" "Is the advertising on Mr. A's baru in black or white letters?"

The object is to teach children to see, and a few such questions as these will quickly determine with what blind eyes they have been seeing (if one may use a paradox).

A great deal of merriment may be caused at a party by listening to the descriptions, written by the gentlemen present, of the ladies' costumes. The awkward attempts will not rival any blunder a girl may make in guessing distances. A man who was describing tucking, said that it was one plait shingled onto another.

### AN ASTHMA CURE AT LAST.

European physicians and medical journals report a positive cure for Asthma, in the Kola plant, found on the Congo River, West Africa. The Kola Importing Co., 1164 Broadway, New York, are sending free trial cases of the Kola Compound by mail to all sufferers from Asthma, who send name and address on a postal card. A trial costs you nothing.



STYLES OF DRESSING THE HAIR.

is apt to give a coarse appearance to the face. The hair is every woman's best adornment, and needs great care and attention.

L. L. C.

### SOUR YEAST BISCUIT.

Put a pint of warm water in a crock or jar with a little hop yeast, or if you happen to have any kind of sour dough on hand it is better; add flour enough to make quite a stiff batter, beat it well and set in a warm place to rise and sour. At night add more warm water (as much as you would use of milk to make a batch of biscuit) and thicken with flour as before, set in a warm place to rise; in the morning, make your biscuit the first thing, so they will have a little time to rise. Pour the yeast out in your dish of flour, add soda and a little salt (it does not require the soda that the same amount of milk does), knead quite stiff, make out in biscuit, roll in grease and place in your baking-pan, and set to rise if you have time. If you do not have good, light biscuit the first time, notice what is wrong and try again. It takes practice to make perfect, even in making biscuit, and be sure to save enough yeast to start again.

D. E. W.

### TOILET NOTES FROM OUR EXCHANGES.

**CARE OF HAIR, TEETH, ETC.**—A hundred strokes, fifty on a side, every day will keep your hair like satin, and ten minutes will do this. One minute in the morning will suffice for scraping your tongue, which will insure you a sweet breath, and it is no more trouble to dip your tooth-brush into the box of salt, which will keep your gums rosy, than to use plain water. A bit of pumice won't take up much room in the

fixed on the ground, in merely a hollowed-out spot, lined with leaves or grass, for the moisture keeps the egg-shells from getting too dry. The wild turkey's eggs nearly always hatch out, and of course their nests are always on the ground.

I only kept the little turkeys cooped up one day after they were hatched, and the first thing they did after being turned out was to go to snipping off the grass and weeds, as if that was their natural employment, as I suppose it was. They refused food of any sort for a day or two, and then began to eat crumbs of light bread soaked with water. They have the range of a grassy hill—fully an acre of ground—and are never allowed to go anywhere else, and they don't know what dirt is; for if cleanliness is akin to Godliness, and a necessity to man, it is doubly so to young turkeys, for dirt and filth will mow them down like meadow-grass before a mower, and all other troubles peculiar to young turkeys pale into insignificance beside this one great enemy.

It is the habit of turkeys to stop to roost wherever night overtakes them, and when the nights are fair I let them stay, but if the weather is rainy, or likely to be, I put them up in a nice, clean coop, which we move every day or two and scrub the boards clean. It is very little trouble, and pays. Another thing, they need food very often and only in small quantities, for if you give them more than they eat up clean, it is not only wasted, but makes the yard filthy. They take a ramble around the place, catching insects and eating grass and dog-fennel and rag-weed as though it was the best food in the

## OVERWORKED WIVES AND MOTHERS.

Yes, "all work and no play makes Jack a dull boy," and the same conditions are just as sure to make Jack's mother dull, dispirited and prematurely aged, if indeed she escapes a physical collapse, nervous prostration and years of weary invalidism (a fate which may be even more cruel than death).

But Jack, the irrepressible and self-assertive American boy, may be safely trusted to in time throw off any yoke of bondage which the most selfish and obdurate father, or close-fisted, grinding employer, can inflict. Not so with Jack's mother. If she was not born of a finer fiber than he, it was under different conditions, and she was not educated to be self-reliant and assertive, but to suppress her individuality and independence of thought, and to unquestioningly perform whatever tasks were required of her. And as yet the number is comparatively small that have developed enough self-assertiveness to demand justice for themselves, or who realize that they are often their own most unreasoning and exacting task-master. And even among this minority are many who lack the courage of their convictions and dare not defy the conventionalities, and incur the censure of Mrs. Grundy. And so, despite the wonderful advances in "higher education," and the so-called "independence" of women, the words are as "tinkling brass and a sounding cymbal," as far as the majority of wives and mothers are concerned.

To be sure, we are a nation of dyspeptic, nervous men, and of children with an unbalanced development of brain over muscular power. But the alarming state of ill health, especially of nervous disorders, which prevails among American women, is a far greater evil than either of these, for it is in part the cause and does much to aggravate and increase the others.

If only extreme poverty (as it alone should) impelled Jack's mother to a life of such monotonous and incessant labor that even her brain becomes dull and stupified, a remedy might far more easily be found. But alas! tabulated statistics show conclusively that ill health among women is more prevalent in the country, where actual want is seldom seen, and where it would seem that all the conditions essential to health could be easily secured, than in a large town. In other words, that this deplorable condition is due to overwork more than to the wearing demands of society and motherhood, or the privations incident to a life of poverty.

And this mother of the farmer boy, Jack, is precisely the one we are talking to, because having lived there we appreciate her needs and can easily "put ourselves in her place."

Very likely the farm is not yet free from debt, and she equally with her husband (for that all husbands are selfish and unreasonable and demand more of their wives than of themselves, I do not believe) feels that they must drive themselves to work early and late until this has been accomplished. Consequently no help is kept indoors, and the wife works sixteen out of every twenty-four hours, and much of the time in an ill-ventilated, overheated kitchen filled with the odors of cooking food, and perhaps sleeps at night in an adjoining bedroom, small and stuffy. Or if she occupies a chamber above, it is very likely the smallest one, or situated on the north side of the house where a ray of sunlight cannot possibly enter to purify it. Nor is it wise economy when your powers are already overtaxed with the demands of motherhood, to goad yourself to accomplish the work of two women for the sake of a few dollars, or a year or two more or less of indebtedness.

No matter how hard your husband works, whether he has two, one or no "hired man." He is not a mother, and his work is nearly all done in the pure air and invigorating sunshine; he takes a "nooning" after dinner, and when evening comes drives to the post-office and is refreshed by less familiar sights, and by contact with other, perhaps brighter minds. After this, no matter how tired he may have been, he sleeps soundly, and nature is given an opportunity to repair the wastes made upon his nervous force during the day, by the only methods God has ordained—rest and sleep.

Is there any good and sufficient reason why you should wear yourself out any more than he? Does any wifely interest or love demand that you shall sacrifice your health and happiness for sordid gain?

Most assuredly not, and when you realize that you are constantly compelled to

overwork, in justice not only to yourself, but to the little lives you have launched into the world, you should resolutely insist upon doing it no longer.

I know that capable domestic help is scarce, almost impossible to obtain in the country; that they demand good wages, are often wasteful, imprudent and unreliable. But of two evils it were wiser to choose the least, and it is less wearing (though you may often doubt it) to oversee and assist incompetent help than it is to endure the constant strain of overwork. If help positively cannot be obtained or afforded, then do be sensible and independent enough to curtail the amount of work done, regardless of any criticism or censure that such a course may evoke.

The desire to dress one's self and children well and becomingly is a duty. But this does not necessitate the wearing of fancifully made and elaborately trimmed garments, that shall tax your purse to buy and your time and strength to make and launder.

To insure a fair degree of health you should understand something of the relative value of at least the common articles of food and methods of cooking, in order to provide a varied, nutritious and attractive diet. But this does not necessitate your spending an indefinite amount of time in making elaborate dishes and fancy desserts.

Nothing that pertains to the sanitary condition of a home and its adjacent surroundings, sinks, drainage, ventilation, cellar, closets, etc., should be neglected. To make an attractive, restful home, one that shall be a haven of comfort, joy and peace; that shall exert a refining and elevating influence over husband and children, and type the "home eternal," is certainly the noblest mission possible to woman. But this does not require that you should constantly sweep, dust, scrub and scour, or that every possible moment shall be devoted to the making of fancy work with which to decorate it. But it does require that you shall be cheerful, hopeful and courageous; that you shall be patient, tender and loving; that you shall enter into your children's pleasures, disappointments and sorrows, and that you shall be a true help-meet to your husband. And no one can do this whose nerves are worn out by constant overwork; our higher nature is dependent upon our lower far more than the ambitious housekeeper appreciates.

Just now, at the commencement of the busy season, is an excellent time to inaugurate a thorough reformation in your methods of work.

Not only determine to have all the labor-saving utensils and conveniences possible to facilitate your work, and to use the sunniest, pleasantest rooms in the house for your own family, but to study constantly to judiciously shirk work, and to secure at least an hour every day for rest and recreation.

To be sure, change of occupation is rest, in a limited sense, but every housekeeper, especially if she is a mother, should have that much time every day when she can let down the tension, forget the carking, monotonous round of work and have absolute rest. How this can be secured each one must decide for herself, but be sure that it is worth strenuous efforts and great self-denial. Lie down, read, romp and play and get acquainted with your children; run out for a neighborly chat, or work in the flower garden.

If you cannot get an hour at a time, take it in ten and fifteen minute installments. But do not lie down in a hot, odorous kitchen or stuffy, darkened parlor. Go to a chamber that has been thrown open all the morning to the sun and fresh air, or better yet, when warm weather comes, in a hammock on the piazza or under a tree on the lawn.

There is no tonic for jaded nerves in the whole materia medica equal to God's sunshine. Let it flood your room. Better have faded carpets, or none at all, than pallid cheeks, dull eyes and the "blues."

If you have, in a half-hearted way, tried to cultivate a few flowers, make a success of it this year by giving them a little of your time each day, and by studying their habits and needs. You have no idea how the mean little worriments and carking cares of life will vanish when once you are out in the fresh air and sunshine, with your hands in the warm, fragrant earth.

Not only take your rest out of doors, but do all the work possible out there, also. Garments can be made and mended, vegetables and fruit prepared, ironing, and many other kinds of work done as expedi-

tiously and easily on a piazza as indoors. Set the breakfast-table out there on fine mornings, and see what a different keynote is pitched for the day than when it is eaten in a close, dark dining-room. If you have no piazza adjoining the kitchen, use the more conspicuous one on the side or front of the house; health and happiness for yourself and family are of greater value than the comments of neighbors or passers-by.

I do not assume that any or all of these suggestions faithfully carried out will prove a panacea for all the cares and worriments that harass a housekeeper's and mother's life. But that they will go far to restore wasted nerve force, to banish irritability and the "blues," and to bring in hope and courage, I know. Test them for six months, and prove it for yourself.

KATHERINE B. JOHNSON.

## FLAXEN FABRICS.

Linen is one of the oldest fabrics in existence. We know this from its frequent mention in the Bible, where "purple and fine linen" is a synonym for sumptuous elegance. The linen used to enwrap mummies is called cerecloth. This is an example of the durability of the textile: A certain archæologist tells of napkins which he found in the coverings of a mummy, which he unfolded and had washed several times, using them with veneration, and much exercise of imagination, for he knew that they were at least 1,700 years old.

The popularity which linen possessed in ancient times continued until cotton became extensively manufactured. For a while the cheaper, coarser substance was urged upon general use, but at the present day linen has regained its supremacy.

France, Belgium and Holland are the finest linen-producing countries. They became accustomed to making linen thread of exceeding strength and fineness on account of the lace-making carried on by their inhabitants, and naturally the next step was to produce thread for weaving. As everyone knows, the process of making thread is called spinning. At first managed by hand, simply twisting the flax between the fingers of the right hand from a distaff held in the left, or stuck in the belt of the spinner, it progressed to the spinning-wheel, which was worked by foot.

This was one of the most picturesque modes of industry that ever employed women's hands and feet. Artists and picture lovers owe much to this stage of the production of linen. It is surprising, too, how recently this was the best means of spinning a thread. The invention of the spinning-wheel, which occurred in Nuremberg, was so late as 1530, and for three hundred years no improvement was made. About that time a machine was produced by which eight threads could be twisted at once. This was the first spinning-jenny. From this, inventions have exceeded the wildest dreams of even hopeful weavers. Cotton, wool, flax and silk can be spun to enormous length and of such exquisite tenacity as to rival a spider's finest web.

Much coarse linen thread is used as the warp of other materials, and flax is largely employed in velvet and velveteen. These are of English manufacture. In Scotland are made ducks, hackabacks and ticking, also sheeting and toweling.

The very finest flax cloth is linen lawn made in France.

The mode of weaving linen gives it different names; for instance, cambric, damask and diaper.

As all women know, Scotch cambric is really only a fine grade of cotton muslin, but properly, cambric is one of the thinnest of linen fabrics, perhaps next to lawn. It is made in Switzerland. Travelers in that country will often see comely Swiss women sitting by the roadside with their handsome braids of hair uncovered in what seems to the tourist rather a cool temperature for such an airy head-dress. But the native looks comfortable as she busily plies her needle on a dainty square of cambric. Several finished handkerchiefs she always has on hand, which she offers for sale with a grace that is both charming and businesslike.

Diaper is a design of geometrical figures, used mostly in toweling.

Damask is dear to every woman's heart. It is supposed that this word is derived from the city of Damascus, where it was first made. The name damask is appropriately applied to all the fabrics in which figures of fruit, flowers, or others (not geometrical), are woven. This includes table-cloths and napkins, the beauty of which, I think, is unequalled, in exquisite refinement, by any other household goods. It is made in Belgium, Austria, England and Ireland, but particularly in Scotland. One city there, Dunfermline, produces more than all Europe together.

Since machinery has relieved women from spinning and weaving linen, they have delighted in embellishing it with embroidery. The handsomest way to finish sheets is by a hemstitched edge. Drawn-work, which, during the last six or seven years, has been revived in all its beauty and elaboration, is not now absorbing so much time and attention; but all persons who own choice pieces value them for those qualities which are too genuinely good to be effected by freaks of fashion.

It is certainly indicative of refined taste to choose linen rather than any other material as a foundation for thoughtful design and skilful handling. It has strength with delicacy, and instead of being injured in washing, it takes on a new softness and polish. Table damask grows more beautiful every time it is washed and ironed. The ironing of a fine table-cloth is an art, proficiency in which the daintiest lady may take pride.

KATE KAUFFMAN.

## MAKING FRIENDS

## AS WELL AS MONEY

Means More Money—Business Capital  
Showing this Ironing Board Sells  
it. Making quick profit. Every  
sale makes a friend. Every  
friend will buy some other  
good thing. WRITE QUICK for  
terms to agents and full de-  
scription of the "LADIES DE-  
LIGHT IRONING BOARD."  
WALTER HILL,  
218 Wabash Avenue, Chicago.



Any  
Time

is the right time  
for everybody to  
drink

Hires'  
Root  
Beer

A temperance drink.  
A home-made drink.  
A health-giving drink.  
A thirst-quenching drink.  
A drink that is popular everywhere.  
Delicious, Sparkling, Effervescent.

A 25 cent package makes 5 gallons of this  
delicious beverage. Don't be deceived if a dealer,  
for the sake of larger profit, tells you some other  
kind is "just as good"—'tis false. No imitation  
is as good as the genuine Hires'.



## The New Cinderella.

The ugly step-mother and two sisters tall  
Had gone in their coach to the young prince's ball.  
Just like the old story well-known to us all.

And left little Cindy alone in  
the ashes,  
To mourn while her sisters were off making mashes,  
In pink muslin gowns, and blue satin sashes.

"Ere you go to the ball, scrub all the doors,  
Scrub all the windows, scrub all the floors."  
This, their command when poor Cindy implores.

But her god-mother said: "Come Cindy dear, bustle!  
If you'd go to the ball, take GOLD DUST and hustle,  
Don't sit there and cry without moving a muscle!"

In less than an hour her hard task was done.  
In blue silk, and diamonds that shone like the sun,  
She danced at the ball, and the prince's heart won.

## MORAL.

If you'd get through your work, and go out to play,  
Buy a package of GOLD DUST,  
You'll find it will pay.

GOLD DUST  
Washing Powder

Is the best cleaner known—a scientific combination that gets away with  
dirt on sight and which sells at half the price of "the other kinds." Try it.

Made only by N. K. FAIRBANK & CO., Chicago,  
St. Louis, New York, Philadelphia, Boston, Montreal.





Farm Cleanings.

THE CHEAP LANDS OF THE UNITED STATES.

WITHOUT any statistics on the subject (nor is any needed to those who have observed as they went along), it is safe to conclude that the states most densely populated have enough cheap, unproductive lauds to double the number of sheep now carried. In several of the older states this can be increased a thousand-fold.

Cheap lands, cheap conditions, natural facilities, favorable circumstances are continually being urged as important and indispensable in raising sheep and wool. For more than a quarter of a century young men have been going West and to the free range country to find these cheap means of competing with "the cheap countries" of the world. They have left regions that were convenient to markets and transportation; left lands that had no price, if the improvements and geographical position were taken into account, and gone where there were no markets or transportation facilities, braved hardships, courted dangers, endured deprivations that they might raise wool cheap.

This rush for the West has been overdone and is still continued. Sheep ranches are established here and there all over the Rocky mountains. The underbrush has been destroyed, wild animals are less troublesome, forest fires are thus avoided, and the conditions of the country are greatly improved by the occupation by sheep.

This is in striking contrast with the mountain regions east of the Mississippi river. All this difference can be accounted for only by the fact that enterprises have tended toward the West without a thought of what the same industry would do for those who would develop the waste lands—lands not adapted to the profitable raising of grain—of the old states, Virginia, West Virginia, Maryland and the other states.

The western ranges have been largely free to those who used them. This has been one of the attractive features of the country for stockmen. While lands are supposed to be owned in the older states, lands can be rented or leased on such favorable terms as to make nominally free ranges, and by reason of near proximity to markets and to winter food supplies, are cheaper and more desirable than western ranges. Large areas of hill and mountain land in these old states, parts of large plantations now fallen into decay, agriculturally speaking, may be leased free of all cost for a term of years, because by the use of sheep the lands are brought into better condition.

It may cause a smile to mention such an enterprise as a sheep ranch in West Virginia, Virginia, North Carolina, Georgia, Florida, Alabama or Mississippi, but there are such plants throughout all these states. Some of them are in very rude form, quite unlike those found in Colorado, Montana and range regions where some system has been found important.

Happily, too, these ranches, sheep farms or, speaking more after the southern fashion, sheep plantations, are largely on the increase. The system of keeping sheep has been improved. It has been found that some general management for the flocks is needed. The abandonment of flocks to the uncertain chances of the woods, the dogs, negroes, hogs, eagles, etc., is not so common now as formerly with the southern style of agriculturists. What is still better, it will continually improve in this direction as experience is gained, and, perhaps, as emigration turns in that direction.

A word of caution should be offered on this, but need not now, other than the system of handling flocks should vary quite a little from that practiced at the North, and, too, should be improved from that generally practiced by the southern planter.

It would not be surprising if within the next decade the advantages of the older states and of the South should be better appreciated, and sheep raising should become a big factor of wealth in a new prosperity in all these regions. In fact, it will be very surprising if these parts of the United States are not by far the most favorable sections for a new and more profitable sheep husbandry than has ever been dreamed of in this country.

R. M. BELL.

NATIONAL GRANGE PATRONS OF HUSBANDRY.

WORLD'S FAIR HEADQUARTERS, }  
ROOMS 10 AND 11, LIVE STOCK PAVILION, }  
JACKSON PARK, CHICAGO, ILL. }

The naval display of July 7th in honor of the arrival of the caravels, the mimic ships of Columbus, was entirely eclipsed on Wednesday by the nautical parade in honor of the arrival of the Norseman sail and rowboat, the Viking. This little craft, with its numerous side oars and its single mast for carrying sail, could be easily taken on board amidship on the smallest of the Columbus fleet. The wonderful little craft, built in similitude of the Viking of Lief Ericsson of old, has crossed the ocean and traversed our inland seas, coming all the way from that north seaport, Christiana, Norway. In welcoming its commander, Capt. Anderson, and crew, Pres. Palmer, of the world's Columbian commission, among other kindly things said: "A few days ago we received the caravels of Columbus, in simulation of that great event which opened this new world to humanity. That reception need not detract from the glory of Norway, which five hundred years before had discovered America; but humanity was not yet ready for its settlement. The glories of the two enterprises will not conflict one with the other."

The weather, without premonition or forerunning prognostication, changed from temperate to torrid during the past week, and life here for the last few days has been almost a burden. The exceedingly hot weather and the myriads of flies are causing serious decline in the butter produced by all three of the breeds in the dairy test. Should these conditions long continue, the showing of the last half of the ninety-day test will not compare favorably with the first half. The Guernsey herd have suffered the loss by death of the fine cow, Imported Rosabella, 3,698, owned by ex-Vice-president Levi P. Morton, Rhine Cliff, N. Y. The Jersey people have been equally unfortunate from a money point of view in the loss of Garrilla, owned by Billings Estate, Woodstock, Vt. This young cow, while not in the present test, was entered for test No. 3, which runs through the month of September.

A strange addition to the small live stock contingent arrived at the barns yesterday. It consists of a pair of cattle from Trinidad, West Indies. They are solid light fawn in color, have stout, upstanding horns and long, drooping ears. They also carry around a large lump, or hump, on the shoulder. I suspect they are the same kind of cattle that are used in traveling caravans, and are called sacred cattle.

The entries in the forthcoming cattle and horse contests closed Saturday evening; number of cattle, 1,046, horses, 902. The cattle and horse exhibition commences August 21st.

The experiment of Sunday opening, having been fully tried, is found to be a failure. The people do not patronize in sufficient numbers to warrant keeping the gates open on that day. The directors almost unanimously voted that July 16th should be the last open Sunday.

Brother W. E. Harbaugh, master Missouri state grange, will take charge at these headquarters on July 24th.

ALMA HINDS, Office Secretary.

DAIRY STATISTICS AND EXPERIMENTS IN DELAWARE COUNTY, NEW YORK.

Delaware county justly claims pre-eminence among the counties of the Empire state as one of the leading, if not the leading county of the state, as regards the dairy industry. And the town of Bovina, in that county, has gained national, not to say a world-wide, reputation for the excellence of its dairies in butter production, both as regards quantity and quality of the product.

The dairy census of that town, taken during the past season by Mr. Geo. T. Powell, president of New York state dairy-men's association, brought out many interesting and instructive facts and figures, some of which are worthy of repetition here.

Among something over one hundred and twenty herds included in said census, the average butter yield per cow was 300 pounds or over in thirteen of those herds.

The highest average was in the herd of Dixon Thompson, who, with a herd of twenty-four cows, secured 353 pounds per cow for the one year, and he was closely followed by James Russell, John S. Hobbie and J. W. Coulter, all of whom reported above 347 pounds per cow, all keeping twenty cows or over.

Ten dairies in this town reported a net

income of \$50 or over per cow above the cost of feed, not counting pasture, labor of butter-making, etc. The largest net return exclusive of pasture and labor, were given by J. D. Mitchell at \$67.13, and three others, namely, James Russell, Dixon Thompson and J. W. Coulter, each reporting above \$60.

Mr. Mitchell's dairy numbers fifteen cows, the others twenty, twenty-four and twenty-two respectively.

The total number of cows reported in the town was 2,669; the average number in dairies 22.42; the average income per cow, after paying for hay and grain, \$27.44.

Average gross income per cow.....	\$ 57.06
Lowest gross income in any herd.....	23.53
Highest gross income in any herd.....	101.13
Lowest net income.....	.83
Highest net income.....	67.13

Now, these figures, it seems to me, as I have said, are very instructive, showing as they do that dairying may be so conducted as to return good profits, while it must be also admitted that as shown by the lowest average given above that it is often carried on at an actual loss.

The town of Franklin also stands well. It probably has more private dairies in which the cream separator is used than any other town in the county.

Mr. E. S. Munson, of this town, recently made a series of experiments among the private dairies of several leading farmers, with several different methods of cream-ripping and two styles of cream separators. In summing up the results of these experiments, Mr. Munson says:

"The average loss on the three dairies using separators is .07 pounds butter fat on 100 pounds of milk, and on the three trials with cold setting .62 pounds butter fat, making a difference of .55 pounds butter fat saved on each 100 pounds of new milk by using a separator. \* \* \* I think I am justified by these experiments in concluding that one half a pound of butter is lost to each 100 pounds of milk among the average dairymen by using the different kinds of gravity creaming instead of the centrifugal process." E. J. BROWNELL.  
New York.

CROPPING THE ORCHARD.

One crop, fruit, is enough for the orchard to produce in one season, but young trees are the better of cultivation for a few years until they reach bearing age. To pay for this cultivation it may not be out of place to raise some kind of crop among the trees.

Small grains are ruled out by their requiring little or no stirring of the soil after plowing and sowing. In addition to this, they are injurious to the trees in several ways. Concerning rye, which grows tallest, the late R. L. Pell, who had extensive orchards of Newtown pippin on the Hudson, and was one of the first to export apples to Liverpool and London, is understood to have said that three successive crops of it would completely ruin an orchard.

Potatoes, corn, beets, dwarf beans, etc., are suitable in such a case; but two things are not to be forgotten: First, only a very careful person is to be allowed among the trees with a team. Second, as the extra crop exhausts the soil more or less, manure must always be supplied to make up for this.

FEATHERS ON THE LEGS.

If some enterprising breeder will take the useful Light Brahmas, and by careful selection, year after year, until he breeds off the feathers from the legs, he will no doubt find plenty of customers for his stock. It cannot be done in a year or two if the breed is to be pure, as time is necessary to accomplish the work. We admit that by crossing with clean-legged birds a portion of the time will be saved, but the purity of the breed will be injured. The Light Brahma, in all its purity, can have the feathers bred off the legs with advantage.

PLANTING HONEY-LOCUST SEED.

Professor Budd replies to an inquiry in *Rural Life* regarding the planting of honey-locust seed as follows:

"The seeds are very hard when dry, and if planted without preparation they will not come up the first year. Hence we scald the seed as we do those of the black locust, but the water used may be much hotter. Boiling water will not injure them, as the temperature of the vessel and seeds will soon lower its temperature. In a few minutes a part of the seeds will double in size and are ready for immediate planting. The enlarged seeds are sifted out and those left are rescaled and again sifted. This is repeated until all the good seeds are prepared.  
"For grove-making, drop two or three

seeds in a place in rows four feet apart each way, taking care to plant in moist soil. If dropped on dry soil the swollen seeds will dry up. The prepared seeds will come up in three or four days if planted when the soil is warm enough for planting beans. When one year old the plants on open ground are tender. Hence, we turn a furrow over them in the fall. The next spring pull out the weaker plants, leaving but one in a hill, using the surplus ones for replanting as far as may be needed.

"When the seeds are planted where the trees are to stand, the trees will make as much growth in fifteen years as the soft maple, and the timber for any use is far more valuable. The scalding soon determines which are the good seeds."

LOSSES OF TURKEYS.

As the turkeys usually keep out of the barn-yard and wander off to the fields, roosting on the trees at night, they are less liable to the attacks of lice than if confined in the poultry-house after dark; but turkeys are attacked by lice as well as are chickens, and though it is rather difficult to catch them and handle them, yet it will prevent less if the heads and necks are greased with lard-oil or cotton-seed oil once or twice during the summer. Do not use kerosene on them. Any kind of harmless oil will answer the purpose just as well.

HOME-MADE TRANSPLANTING-TUBES.

Who has not wanted to move or transplant some plants that were valuable, and hesitated for fear they would not grow? It is easy enough if you only go at it in the proper way. Market gardeners use what they call transplanting-tubes. I use a substitute. For ordinary garden use I take a one-pound oyster-can and set it on the stove a few minutes, and melt the solder so the bottom will come off. Then reverse and take off the top rim, being careful not to get the can hot enough to melt the side seam. The tube is now ready for business. Set the tube over the plant you wish to move, and with the foot sink it nearly level with the ground; pull the tube up. Make a hole with a hoe where you want your plant set, set the tube in place, pour a dipper of water in the top of tube and you can slip the tube out, leaving the plant set, and undisturbed. Draw a little dry dirt over the wet, and the job is done. Try it.  
R. W. J. STEWART.

A GRAND MASS MEETING AT CHICAGO.

To the Wool Growers and other Farmers of the United States:

There will be a mass meeting of the wool growers of the United States on the 28th and 29th days of September, 1893, at Assembly Hall on the grounds of the World's Columbian Exposition, at Chicago.

On the 5th day of October a meeting of the National Association of Wool Growers will be held at the same place. Farmers, wool growers, cotton planters, wool dealers, all are expected to be in attendance in large numbers.

The purpose of these meetings is to consult and act for the common good of all and for the whole American people—not in the interest of foreigners.

WILLIAM LAWRENCE,  
President Ohio Wool Growers' Association,  
Bellefontaine, Ohio.  
W. N. COWLEN, Secretary,  
Quaker City, Ohio.

CABBAGES FOR POULTRY.

The small heads of cabbage may be saved for the hens. We do not believe that it pays to grow cabbages for the hens, as cabbages are too valuable in the market; but there will always be some heads that are not suitable for sale, which will be very serviceable in winter as poultry food. They do not contain a large proportion of nutrition, compared with their bulk, but they serve as an agreeable change of food when grain is the staple diet, and largely assist in keeping the hens thrifty and in good condition.

HARVESTING BEANS.

I will tell you how I harvest beans. Instead of pulling up the vines I take tobacco shears and cut them off. That does away with dirt sticking to the roots, and it is a great deal easier work. I then take a fork and put them in bunches.  
Tra, N. Y. S. N. G.

LEAKY ROOFS.

The most difficult matter in keeping a flat-roof poultry-house dry is the damage done to tarred paper by the winds. Nail on plenty of strips and then give the roof a thick coating of hot coal-tar. It will soon become hard at this season of the year.

ASTHMATIC TROUBLES, Pleurisy Pains, and Inflamed Throats, are overcome and healed by Dr. D. Jayne's Expectorant—for fifty years an approved stand-by for all Coughs and Colds.



**Selections.**

**HIDDEN STRENGTH.**

'Tis not the brightest flowers are sweetest,  
God's loving care  
Gives to the tiny, tender blossoms  
Perfume sweet to wear.

'Tis not for those by world most prospered  
That Jesus came;  
Riches and honor count as nothing  
But in his name.

Somewhere in the world's vast domains  
He cast thy lot;  
It matters not how meek or lowly—  
He'll forget thee not.

**WHAT IS ELECTRICITY?**

As far as the writer is able to understand the matter now, electricity is simply motion of the molecules of the different substances which are the subjects of electrical action, just as heat, light and sound are, and the only difference between these forces is the rate of the motion. The motion of sound, as we all know, is comparatively slow; that of heat and light are very rapid. That of electricity would appear to be somewhat between the slow motion of sound and the rapid motion of those heat waves whose motion is slowest. And it would appear that the wonderful adaptability which electricity shows for every kind of work is due entirely to the position which its rate of motion occupies in the scale of the energies. It would also appear that the reason this wonderful agent laid dormant for so many ages and is even now only partially developed is, very largely at any rate, because we have no sense which responds to the particular periods of vibration comprised within the electrical range.

Heat currents would be far more efficient than electric currents if we could make use of them as we do of the latter; and, as before remarked, the reason electricity is such a useful agent appears to be because its rate of vibration is sufficiently high to admit of rapid transmission, yet not sufficiently so to be destructive. It only becomes destructive when it is transformed into heat.—*Electrical Review.*

**PRESERVATION OF RINGS.**

"Don't wear your rings under gloves unless you remember to have them thoroughly examined twice a year," is the advice given by a jeweler. The constant friction wears out the tiny gold points that hold the stones in place, and unless strict attention is paid to them they become loose in a very short time. Small purses of suede leather are made on purpose for rings, or any soft pouch of skin or chamois may be used to place the rings in when desiring to carry them around with one.

They should never be put into the ordinary pocket-book, as the rubbing against coins is also bad for them. Diamonds can be cleaned at home to look as well as when done by a jeweler, if only a little trouble is taken. They should be thoroughly cleaned in alcohol and then dried in boxwood sawdust. Pine sawdust is too oily for this purpose.

**TRUE MARRIAGE.**

A happy wedlock is a long falling in love. I know young persons think love belongs only to the brown hair and plump, round, crimson cheek. So it does for its beginning, just as Mount Washington begins at Boston bay. But the golden marriage is a part of love which the bridal day knows nothing of. Youth is the tassel and silken flower of love, age is the full corn, ripe and solid in the ear. Beautiful is the morning of love with its prophetic crimson, violet, saffron, purple and gold, with its hopes of days that are to come. Beautiful also is the evening of love, with its glad remembrance and its rainbow side turned toward heaven as well as the earth.—*Theodore Parker.*

**HOW TO OPEN A NEW BOOK.**

Hold the book with its back on a smooth or covered table; let the front board down, then the other, holding the leaves in one hand while you open a few leaves at the back, then a few at the front, and so on, alternately opening back and front, gently pressing open the sections until you reach the center of the volume. Do this two or three times and you will obtain the best results. Open the volume violently or carelessly in any one place and you will likely break the back and cause a start in the leaves. Never force the back; if it does not yield to gentle opening, rely upon if the back is too tightly or strongly lined.

**TRUE PEACEMAKERS.**

Don't be a grumbler. Some people contrive to get hold of the prickly side of everything, to run against all the sharp corners and disagreeable things. Half the strength spent in growling would often set things right. You may as well make up your mind to begin with, that no one ever found the world quite as he would like it; but you are to take your part of the trouble and bear it bravely. You will be sure to have burdens laid upon you that belong to other people, unless you are a shirker yourself; but don't grumble. If the work needs doing, and you can do, never mind about that other fellow who ought to have done it and didn't. These workers who fill up the gaps and smooth away the rough spots and finish up the jobs that others leave undone—they are the true peacemakers, and worth a whole regiment of growlers.

**GOOD ADVICE.**

A father who tenderly loved his son, one day gave him some excellent advice, designed to govern his course in life. He said:

"My son, in pursuing your course in the world you will find many things which you cannot understand. You would like to understand them, but it is impossible. There is no use for you to tax your brain to explain them. Just throw them in a heap by themselves. Call them a heap of 'Inexplicables,' and go on your way.

"Then again, you will come across things which are manifestly wrong; but they are beyond remedy. It is useless for you to try to find a cure—it is not in reach. So you must throw them in another heap and call it a heap of 'Incurables,' and pursue your course."

That old father gave good advice to his son. Let us so deal with inexplicables and incurables.

**A GRAIN OF WHEAT.**

What is there in a grain of wheat? Many would say, "That does not count." Why not? Behold it. I see in that grain of wheat something that has turned the wilderness into a fruitful plain; that has led the march of empire westward. I see a thousand fields where hundreds of men are at work. I see the scythe and sickle giving way to the improved machinery of modern times. I see in that little grain of wheat something that has created the great railway lines of the West and Northwest. I see gigantic mills rising. I see the white wings of the ships that bear the product of those mills across the seas to other continents. I see in that grain of wheat the hope of nations on whom the spectral form of famine glares—the loaf that shall drive hunger from the world. This is the vision that rises before us as we look at this tiny grain. More than this the great God sees in every human soul.—*Rev. M. D. Shutter.*

**MRS. CLEVELAND'S HOUSEKEEPING.**

The mistress of the White House has little trouble in housekeeping, for all the servants are under control of the steward. On him devolves the duty of preparing a bill of fare and of marketing; then he sees that the other domestics are fulfilling their duties properly. Over the kitchen, two housemaids, butler and assistant laundry-woman and stable servants, he has the entire supervision, and if he wishes to discharge help he gives his reason and complaint to the mistress of the house, who acts as she thinks best. All of the servants except the cook and coachman are paid for out of the president's salary, and as there are about ten in all, the item is no small one. For running expenses—such as repairs—the government allows a certain sum each year.

**HOW ABSURD IS QUARRELING.**

What absurd little things people quarrel about. What trivial matters cause ill-feeling in families. The mutton being roasted too little or the beef too much, an opinion about the temperature of the house or the style of the curtains that ought to be bought for the front windows, the definition of a word or its pronunciation, are not topics worth a quarrel when peace and good will are of so much importance in the home.

A little ill-feeling is like a little seed that may grow into a large tree which will shadow the whole house. Many a man and woman must look back with regret on the hasty word or the cold reproach which was the entering wedge that split a household in two; and yet how few make a point of uttering the soft word that turneth away wrath.—*Once a Week.*

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**THE LANGUAGE OF FLOWERS**

AND  
**Floral Conversation:**

By all lovers of flowers this little volume will be especially appreciated. It has been compiled from the best authorities and may be considered as reliable. It not only gives the language of the beautiful flowers, but contains much of value regarding floral decorations and the preservation of cut flowers, skeleton leaves and mosses. We mention the titles of different chapters:  
The flower language—principles; Flowers by the poets; Floral conversation; The old gardener's story; Expressions in bouquets; Secret correspondence; Floral decorations; Thanksgiving day; Christmas; Easter; Decoration day; Birthday celebrations; Weddings; Funeral ceremonies; The church; Cemetery decorations; Preparing skeleton leaves; Drying flowers with their natural colors; Autumn leaves; Drying sea mosses; Plants and flowers and their sentiments.

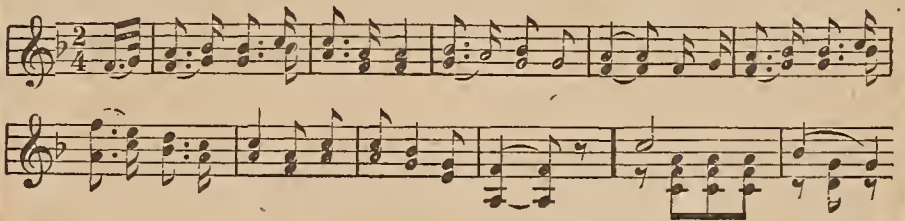
**A BARTERED BIRTHRIGHT.**

ILLUSTRATED.

By James Franklin Fitts.

This story, entitled "A Bartered Birthright," was originally published as a serial in Farm and Fireside, and met with such a hearty reception from its thousands of readers that we have reprinted it in handy book form. It is such a story as pleases all lovers of good fiction. It is a most interesting weaving together of love, intrigue and honor, in which the good and true finally triumph. A wholesome story, well written and holding the interest of every reader from the first to the last page. It is illustrated throughout and printed in fine, clear type.

**THE ECLIPSE MUSICAL FOLIO.**  
VOCAL AND INSTRUMENTAL



Size of Pages, 9 by 11 Inches.

This folio consists of a choice selection of forty-five pieces of sheet music, vocal and instrumental, by popular composers. The selections have been made with a view of meeting a great variety of musical tastes. Here will be found sacred and secular, comic and sentimental, pathetic and humorous music of a high character, and adapted for the soiree, dances, church festivals, etc. The following is a list of the several pieces:

- |                              |                                      |
|------------------------------|--------------------------------------|
| <b>LITTLE DREAMER WALTZ.</b> | <b>TA-RA-RA BOOM-TA-RA.</b>          |
| Adieu.                       | Remembrance.                         |
| Cuckoo.                      | My Lady Birch.                       |
| Heather.                     | Denmark Polka.                       |
| Berceuse.                    | Isle of St. Elmo.                    |
| Swinging.                    | Kathleen Aroon.                      |
| Noveltte.                    | Christmas March.                     |
| Barcarolle.                  | My Baby's Grave.                     |
| Traumerei.                   | Hail to the Chief.                   |
| Impatience.                  | My Little Knight.                    |
| Mnemosyne.                   | Melophone Waltz.                     |
| Called Away.                 | Momens Musicale.                     |
| Village Bells.               | Evening Thoughts.                    |
| Almira Polka.                | The Magic Gavotte.                   |
| Remember Me.                 | The Happy Farmer.                    |
|                              | Vergiss Mein Nicht.                  |
|                              | The Little Dustman.                  |
|                              | Little Hunting Song.                 |
|                              | Lessons of the Gorses.               |
|                              | Songs Without Words.                 |
|                              | Romance Sans Paroles.                |
|                              | For the Old Love's Sake.             |
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|                              | Prayer from Der Freischutz.          |
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**Gleanings.**

**THREE GATES.**

If you are tempted to reveal  
A tale some one to you has told  
About another, make it pass,  
Before you speak, three gates of gold.  
These narrow gates—First: "Is it true?"  
Then: "Is it needful?" In your mind  
Give truthful answer. And the next  
Is last and narrowest: "Is it kind?"  
And if to reach your lips at last  
It passes through these gateways three,  
Then you may tell the tale, nor fear  
What the result of speech may be.  
—The Housekeeper.

**A LITTLE BOY'S LOVE.**

With shouts of laughter  
That followed after,  
This forfeit made its stern behest:  
"Kneel to the prettiest,  
Bow to the wittiest,  
And kiss the one you love the best"  
"Come, choose her boldly,"  
They cry, but coldly  
He turns from all the maidens there,  
To bow—and lingers  
To kiss her fingers,  
While kneeling at his mother's chair.  
—Ruth Hall, in *Wide Awake*.

**ARGUS GIGANTEUS.**

**T**HIS branch of the noted pheasant family ranks highest in size and brilliancy of plumage, and only in their native wilds in Sumatra or India can their magnificence be seen to advantage.

The Argus pheasant is not a brave bird; a very slight noise throws the vain creature into quite a panic, and in haste the nearest, heaviest growth of underbrush is sought, where he may in safety preserve, unruffled, the beautiful feathered coat.

At certain seasons, "when household thoughts prevail," Sir Argus makes a circus in the forest from ten to twelve feet in diameter; making sure that every obstruction of leaf, twig and branch that would hamper his gymnastic feats of love are cleared away, he vigorously bestirs himself for action.

It seems to be well understood between Sir Argus and madam, who, meanwhile, has quietly settled herself upon a high-arched knot or lofty branch, ready to receive the customary gallant attentions; when the arrangements are completed, *paterfamilias*, with every feather in order, commences prancing around the cleared circle, exhibiting his pretty paces, thus greatly delighting his audience of one, perched aloft.

Occasionally accidents will happen, and the swift runner, forgetting all else but the beloved one, narrowly watching his agile movements, steps a little outside the charmed circle, and suddenly finds himself ensnared.

Then comes madam's great advantage; she is strong of wing, and does not delay seeking a familiar roost, where she watches the sad imprisonment of her liege lord.

She can easily secrete herself; she sports no gay attire; and rarely do sportsmen or hunter find her abiding-places.

From her lofty eyrie, as unconcerned as might a stranger be, she watches with utmost calmness the dreadful dilemma, comforting herself, no doubt, that there are other cavaliers on wing, as richly clothed, as chivalrous, and as adventurous as her lost mate.

**RULES FOR GIRLS IN SLEEPING-CARS.**

The wise girl knows that nothing is so desirable for wear in the sleeping-car as a wrapper of dark-colored flannel. It may be stated as a positive fact that women who try to make themselves look coquettish in a sleeping-car, and wear elaborate negliges or lace-trimmed wrappers, show extremely bad taste. Experience has taught that a wrapper of soft flannel in stripes of black and blue, made in the simplest fashion, is most useful.

When she is ready to go to bed, and the porter arranges her berth for her, she goes to the toilet-room, taking with her her shawl-strap packages. She removes her shoes and stockings, puts on the knitted slippers that she has taken out of her bag, removes any garments which she pleases, and assuming her wrapper, which has been folded in the shawl-strap, repairs to her berth.

After fastening the buttons of the curtains, she disposes of her clothing as best she can, folding each article smoothly and carefully, placing her money, watch and tickets in her wrapper pocket. And then she should try to rest—the porter will call

her in good season, and her ticket will not be asked for during the night. In her shawl-strap, which shows as its outer wrapping a shawl or traveling-rug, she may have her own pillow if she desires it, but this is not a necessity, as the cars are supplied with linen that is usually fresh and clean.

In the morning the wise girl will put on her stockings and shoes in bed, leaving the lacing or buttoning of them until later. Then she will assume her other garments and repair to the toilet-room, where she should as expeditiously as possible make herself neat, trim and fresh, that her friends who are to meet her may not find her dusty or travel-stained.

This she should do quickly, that she may not be classed among those who are the dread of all considerate women on parlor-cars—the women who take and hold possession of the toilet-room as if it were a fort.—*Ladies' Home Journal*.

**THE LOST BEAN STEW.**

Every Yankee is supposed to be fond of baked beans. During our civil war, the New England regiments, when in camp, were loyal to the ancient custom which provided baked beans for the Saturday night supper and the Sunday morning breakfast. On the march the boys had to be satisfied with stewed beans, for the bivouac did not admit of building an oven or the digging of a pit wherein to bake them.

At the battle of Fisher's Hill an amusing illustration of a Yankee's devotion to his beans occurred. The color-sergeant of the Fourteenth New Hampshire was noted for his bravery and his fondness for stewed beans flavored with vinegar.

During the afternoon, while preparations were going on for the advance which won the field, the color-sergeant was stewing his beans. He had just taken the kettle off the fire, and, spoon in hand, was about dining, when he heard the orders:

"Fall in! Fall in! Forward, march!"  
He would not desert the flag, he could not abandon his savory meal. Tying the steaming, sooty pail to his belt, he took his place in the center of the line, bore aloft the colors and advanced with his regiment to the charge.

He kept one eye on the enemy and the other on the dangling pail at his side. The battle was won, but the boys declared that the way of the Fourteenth was literally strewn with beans.

**HOW TO CLEAN DRESSES.**

Get five cents' worth of soap-bark from the druggist (about a teacupful). For one dress take half of it and steep in about one quart of boiling water for about half an hour or more, then strain through a cloth.

For a silk dress, while the liquid is warm take piece of white flannel and dip into it at intervals, and rub the silk or satin with it until it seems cleansed. When done, pull the material straight and hang it to dry. Do not iron either the silk or satin. If the dress is very much soiled, use clean liquor to rinse it; but do not use clear water for silk, or it will not stiffen up well.

For a woolen dress, dip the part to be cleansed, or the whole of it, if needed, into the liquor. This can be rinsed in the same after washing, or in clean, warm water. If very dirty, put the dress to soak in a tub in the liquor with more water added before cleaning or washing. The woolen goods should be pressed until quite dry.

Water in which potatoes have been boiled will cleanse delicate-colored woolen or worsted goods. The dress should be wet all over. Use no soap. Rinse in clear, warm water. Press while still damp. This will not injure the most delicate colors.

**FORETELL THE WEATHER.**

A Spanish journal tells of an interesting experiment to be tried with a cup of clear coffee and a lump of sugar. The sugar should be dropped into the coffee without stirring; in a moment the air contained in the sugar will rise to the surface in the shape of bubbles, and these bubbles are excellent weather indications.

If they collect in the middle of the cup a fair day follows; if, adversely, they adhere to the sides, forming a ring of bubbles with a clear space in the center, take your umbrella, for rain is at hand; while if they do neither one thing nor the other, but scatter irregularly, variable weather is indicated. Just what is the scientific explanation of the action of the atmosphere on the bubbles is not stated, but that their indications curiously agree with those of a barometer has been tested.—*The Whole Family*.

**LIVE FOR SOMETHING.**

Thousands of men breathe, move and live, pass off the stage of life and are heard of no more. Why? They did not a particle of good in the world, and none were blessed by them; none could point to them as the instruments of their redemption; not a line they wrote, not a word they spoke could be recalled, and so they perished—their light went out in darkness, and they were not remembered more than the insects of yesterday.

Will you thus live and die? Live for something. Do good, and leave behind you a monument of virtue that the storms of time can never destroy. Write your name by kindness, love and mercy on the hearts of the thousands you come in contact with year by year, and you will never be forgotten. No, your name, your deeds, will be as legible on the heart you leave behind as the stars on the brow of the evening. Good deeds will shine as bright on the earth as the stars of heaven.—*Dr. Chalmers*.

**LAZY MEN.**

An exchange puts in a word in defence of lazy men by saying that "we are indebted to them for most of our labor-saving inventions." This may be true, as we have not a full history of all such inventions and inventors, but we do not believe it. All that we know of or have any authentic account of, were invented by active, energetic men, who could not accomplish as much work by the slow process and imperfect machinery they had, and set themselves to work to find a method by which more work could be done in the same time. We have seen some so-called labor-saving in-

ventions, patented by lazy men, but never saw one that was worth the room it occupied in the shop, field or house, any more than was its inventor.

A man is not necessarily lazy because he stops to think about his work while he is doing it, or because he may at times desire to change his occupation for a few hours, and exercise a different set of muscles, while the man who works a specified number of hours each day, at a certain regular rate of speed, as steadily as the clock ticks, may be too lazy to run down hill unless running is easier than walking. They have not energy enough to change their habits, or even to think about any possible improvement in methods. They do not really live, but they exist, and continue to do so because it is too much trouble to do anything else, and are as useful and reliable in their day and generation as the sun-dial, and for the same reason. Wherever they are put they are always there.

**GIVING PLEASURE.**

A little thought will show how vastly your own happiness depends on the way other people bear themselves toward you. The looks and tones at your breakfast-table, the conduct of your fellow-workers or employees, the faithful or unreliable men you deal with, what people say to you on the street, the way your cook and housemaid do their work, the letters you get, the friends or foes you meet—these things make up very much of the pleasure or misery of the day. Turn the idea around, and remember that just so much are you adding to the pleasure or misery of other people's days. And this is the half of the matter you can control. Whether any particular day shall bring to you more of happiness or of suffering is largely beyond your power to determine. Whether each day of your life shall give happiness or suffering rests with yourself.

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## Current Comment.

**T**HE immediate cause of the stringency in the money market is the withdrawal of money from circulation. In the aggregate a vast sum of money is now hoarded.

Idle money gains nothing. Just as soon as distrust disappears this vast sum of hoarded money will be seeking investment. It will go back in circulation faster than it was withdrawn. It will be thrown on the market and interest rates will fall. Confidence is being restored and better times are coming. Loans can be made now on gilt-edge securities at higher rates of interest than can be obtained when the rush for the investment of money now idle comes, as come it surely will.

Take a hint from the operations of shrewd foreign financiers. Tens of millions of their gold are now on the way from Europe for investment in American securities. It is coming in on the flood-tide that bears to greater fortune. The country is great and it is safe. Let every man who has money hoarded promptly return it to circulation by making careful investments and safe loans. It is the wise and patriotic thing to do, and will give immediate relief to business of all kinds.

**T**HE Congress of the United States now convened in extra session for the special purpose of making laws on money, commands the attention of the civilized world. A great and decisive "battle of the standards" is to be fought. Will it be a victory for the single gold standard or for the single silver standard? Or will it be a drawn battle, with a declaration of eternal peace on the basis of the use of both gold and silver as money at their true ratio of values?

The conditional repeal of the act of 1890 will place the monetary system of the United States exclusively on a gold basis.

The repeal of this act and the passage of a law providing for the free and unlimited coinage of silver at the established legal ratio of 16 to 1, will drive gold from the country and practically place its monetary system on silver alone. The first means an appreciating currency to the undue advantage of creditors; the other means a depreciated currency to the unfair advantage of debtors. Equity is in neither. Impartial justice is in true bimetalism, that is, such use of silver as money as will prevent gold from rising in value.

Under this true bimetalism the purchasing power of the dollar will not be changed. The creditor will receive back exactly what is due him; the debtor will pay back exactly what he owes. An honest creditor asks no more; an honest debtor asks no less. The mass of the people are honest at heart and demand absolute equity. Will

this congress legislate justly? Every true patriot hopes so.

From the foundation of the nation down to the present time every eminent American statesman has declared in favor of the use of both gold and silver as money. But during that time no man, numbered among the statesmen or deserving the name of statesman, has demanded a depreciated currency. All true statesmen have labored to preserve unimpaired the high credit of the government and promote justice among the people in all financial transactions. They have not labored in vain. No government in the world has higher credit. And the people are honest or they would have scaled down their debts with a depreciated currency years ago. Will this Congress legislate in favor of the true, honest dollar, the dollar that neither rises nor falls in its purchasing power? That is the kind of a dollar that justice demands.

To find an absolute and unchanging standard of value is one of the unsolved problems of economics. Money is not an absolute standard of measurement. If it is based on gold alone, it varies with the value of that metal, which is subject to the law of supply and demand. If it is based on silver alone, it will do the same. Both gold and silver have fluctuated in value, and at different rates at different times. To discard either as a money metal is to enhance the value of the other. To use both in such a way that the fluctuations of one compensate for the fluctuations of the other is the nearest possible approach that can be made to a constant and stable basis for money. This is the true bimetalism.

**T**HE American National Bimetallic League in convention assembled at Chicago, August 1st and 2d, adopted the following resolutions:

First—That there must be no compromise of this question. All legislation demonetizing silver and restricting the coinage thereof must be immediately and completely repealed by an act restoring the coinage of the country to the conditions established by the founders of the nation, and which continued for over eighty years without complaint from any part of our people. Every hour's delay in undoing the corrupt work of Ernest Seyd and our foreign enemies is an insult to the dignity of the American people, a crushing burden on their prosperity, and an attempt to again place us under the yoke from which George Washington and his compatriots rescued us. We protest against the financial policy of the United States being made dependent upon the opinion or policies of any foreign government, and assert the power of this nation to stand on its own feet and legislate for itself upon all subjects.

Second—We declare that the only remedy for our metallic financial troubles is to open the mints of the nation to gold and silver on equal terms, at the old ratio of sixteen of silver to one of gold. Whenever silver bullion can be exchanged at the mints of the United States for legal tender silver dollars worth one hundred cents each, that moment 412½ grains of standard silver will be worth one hundred cents; and as commerce equalizes the prices of all commodities throughout the world, whenever 412½ grains of standard silver are worth one hundred cents in the United States they will be worth that sum everywhere else and cannot be bought for less. While it will be urged that such a result would enhance the price of silver bullion, it is sufficient for us to know that a similar increase would be immediately made in the price of every form of property except gold and credits in the civilized world. It would be a shallow selfishness that would deny prosperity to the mining industries at the cost of bankruptcy to the whole people. The legislation to demonetize silver has given an unjust increase to the

value of gold at the cost of the prosperity of mankind. Wheat and all other agricultural products have fallen side by side with silver.

Third—That while the "Sherman act" of July 14, 1890, was a device of the enemy to prevent the restoration of free coinage, and is greatly objectionable because it continues the practical exclusion of silver from the mints and reduces it from a money metal to a commercial commodity, nevertheless, its repeal, without the restoration of free coinage, would stop the expansion of our currency required by our growth in population and business, widen still farther the difference between the two precious metals, thus making the return to bimetalism more difficult, greatly increase the purchasing power of gold, still further break down the price of the products of the farmer, the laborer, the mechanic and the tradesman, and plunge still further all commerce, business and industry into such depths of wretchedness as to endanger peace, order, the preservation of free institutions and the very maintenance of civilization. We, therefore, in the name of the republic and humanity, protest against the repeal of the said act of July 14, 1890, except by an act restoring free bimetallic coinage as it existed prior to 1873. We suggest that the maintenance of bimetalism by the United States at a ratio of sixteen to one will increase our commerce with all the silver-using countries of the world, containing two thirds of the population of the world, without decreasing our commerce with those nations which buy our raw material, and will compel the adoption of bimetalism by the nations of Europe sooner than by any other means.

Fourth—We assert that the unparalleled calamities which now afflict the American people are not due to the so-called Sherman act of 1890, and in proof thereof we call attention to the fact that the same evil conditions now prevail over all the gold-standard nations of the world; we are convinced that had as is the state of affairs in this country it would have been still worse but for the Sherman act, by which the nation has obtained, to some extent, an expanding circulation to meet the demands of a continent in process of colonization, and the business exigencies of the most energetic and industrious race that has ever dwelt on the earth, and we insist upon the execution of the law without evasion so long as it is upon the statute books, and upon the purchase each month of the full amount of silver that it provides for, to the end that the monthly addition to the circulating medium the law secures shall be maintained.

Fifth—That we would call the attention of the people to the fact that in the midst of all the troubles of the times the value of the national bonds and the national legal-tender money, whether made of gold, silver or paper, has not fallen a particle. The distrust is not of the government or its money, but of the banks, which have, as we believe, precipitated the present panic on the country in an ill-advised effort to control the action of Congress on the silver question and the issue of bonds. We invite the bankers to attend to their legitimate business and permit the rest of the people to have their full share in the control of the government. In this way they will much sooner restore that confidence which is so necessary to the prosperity of the people. It must not be forgotten that, while boards of trade, chambers of commerce, bankers and money dealers are worthy and valuable men in their places, the republic can more safely repose upon the great mass of its peaceful toilers and producers, and that this "business-man's age" is rapidly exterminating the business men of the country. The time has come when the politics of the nation should revert as far as possible to the simple and pure condition out of which the republic arose.

Sixth—We suggest for the consideration of our fellow-citizens that the refusal of the opponents of bimetalism to propose any substitute for the present law, or to elaborate any plan for the future, indicate either an ignorance of our financial needs or an unwillingness to take the public into their confidence; and we denounce the attempt to unconditionally repeal the Sherman law as an attempt to

secure gold monometallism in flagrant violation of the last national platforms of all the political parties.

The name of this league is a misnomer. It is not for bimetalism, but for silver monometallism. The declarations are those of the radical silver standard men. Let us briefly examine the leading feature of each resolution.

First—To return to the conditions which the founders of the nation established, or endeavored to establish, is to use both gold and silver at their actual ratio of values. The people will not object to that.

Second—To open the mints of the nation on terms now equal, is not to open them at the old ratio of 16 to 1. Silver has not only relatively, but actually declined in value the world over. The commercial, or relative ratio is now nearly 30 to 1. Owing to the appreciation of gold, the actual decline of silver is less than indicated by this ratio. While the free and unlimited coinage of silver by the United States at the old ratio would undoubtedly enhance the value of silver bullion some, it could not possibly, in the face of its actual decline in value, make sixteen ounces of silver worth one ounce of gold. The gold baron tries to mislead the people into the belief that an ounce of gold has never varied in its purchasing power; the silver sheik tries to mislead them into the belief that the purchasing power of a shekel of silver has never varied from the time of Abraham to the time of Benjamin and Grover. Between the extremes there is a golden mean of fact. Both money metals have varied in value and will continue to vary.

Third—Has there really been an expansion of the currency under the operation of the Sherman act? Has not more currency been withdrawn from circulation than has been added to it since that law went into effect? Has not the monthly issuance of treasury notes redeemable in gold, by enlarging the demand for gold, enhanced its value and widened the difference between the precious metals? Have silver producers been willing to accept silver coin for the bullion sold to the government? Have not silver producers themselves discredited silver? When the act of 1873 was passed, the bullion value of a silver dollar was 103 cents in gold. Are silver advocates really asking, in the name of humanity, the coinage of silver on such terms now?

Fourth—It is true that the "unparalleled calamities" are not due to the mis-called Sherman act of 1890, but under that act there has been no expanding circulation, as claimed.

Fifth—It cannot be true that the prevailing distrust is a distrust of banks. Money has been withdrawn not only from banks, but from circulation. It is locked up in safety-deposit boxes, or hidden in clocks, socks and other places more or less insecure. If it were a distrust of banks, this money would have been withdrawn from the banks only, not from circulation. It was withdrawn from the banks in order to get it from circulation. It was not distrust of the loaning agencies, but fear that in the uncertain future a cheap dollar might come back in place of the good dollar that went out.

Sixth—A prompt repeal of the compulsory purchase feature of the silver act of 1890 will do much to restore confidence. As much time as is necessary can then be taken to formulate a substitute providing for the use of both precious metals on such terms that equity will prevail, and our monetary system be placed on a basis as stable as it is possible to make.

## FARM AND FIRESIDE.

ISSUED 1st AND 15th OF EACH MONTH BY  
MAST, CROWELL & KIRKPATRICK.

THIS PAPER HAS BEEN ENTERED AT THE POST-OFFICE  
AS SECOND-CLASS MAIL MATTER.

We have an office at 927 Chestnut Street, Philadelphia, Pa., also at Springfield, Ohio. Send your letters to the office nearest to you and address

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## Our Farm.

## PLAIN TALKS ON TIMELY TOPICS.

## II.

**A** LITTLE story is going the rounds of the press, the moral of which may be brought closely home to some farmers.

An old lady is telling her little granddaughter of her early life, holding forth eloquently on the poverty which was a part of the heavy load in the early days. Her intent is evidently to show the little one how much more the people of this age have to make them happy than did people in the early part of the century. The good old lady goes on to tell how poor her family was. They had a comfortable house, plenty of warm bedding, rag carpets, etc., but they had no money and were very poor. True, they had plenty to eat, for they raised their own milk, eggs, wheat, poultry, mutton and beef, and had an abundance of fresh fruits and vegetables and plenty of maple sugar; but still they were very poor, for they rarely had any money, and there were two things they always longed for, but were too poor to obtain. These were salt mackerel and molasses.

This story reminds me strongly of the manner in which many farmers are ever growling over their extreme poverty. With an overflowing larder, a comfortable home and an abundance of everything which goes to make life happy, except money,

handled and turned for fear that it will not cover the dozen and one odd things required for the bare support of the family?

Let us look at the question for a moment from the wage-earners' point of view. Taking the average stipend of the mechanic through the year at fifteen dollars per week—and statistics show that, taking out lost time, it does not exceed this figure—how much ready cash can he have on hand at the end of the year after supporting his family decently? I do not mean in such luxury as to quality and quantity as most farmers may live in, but when he must pay full market price for small quantities of the milk, butter, eggs, poultry, fruits and vegetables used so freely on your tables.

Putting it a little differently, how much cash balance do you think you could show at the end of the year, supposing you received fifteen dollars a week for your labor and paid the market price for the food you and your family consume, placing the other expenses of your family and the wage-earner's at the same figure?

I grant you that farm work is hard and that prices obtained for products are as a rule too low, but if your knowledge of other avocations is at all extensive, you will agree with me that there are other occupations in which the workers fare far worse than in farming.

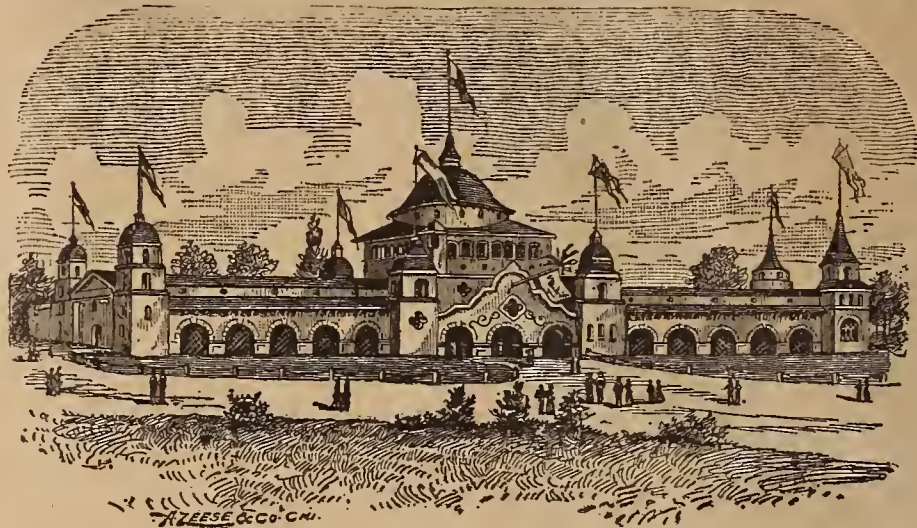
Life in a great city in this age takes a pace which is killing. I am familiar with the facts, for I have been both employer and employee in that greatest of whirling American cities, New York, and I can honestly say that for each of upwards of the ten years devoted to work in the city, it is my firm belief that my term of life has been shortened a corresponding period. I have been in the thickest of the fight in both city and country, and moderately successful in both places, and now with country life I am better, morally, physical-

ly and mentally, with less than one third the yearly income, than I was in the city.

It is true that my city training has been of value to me in my country life, for remembering the early days on the farm, I am able to adapt my city training to my farm work, now that I have returned to it. And, by the way, may not this lack of application of business principles to farming be the rock over which so many farmers fall? Possibly we ought not to blame

estables, half a dozen fowls, a few dozens of eggs and a few pounds of butter, take them to a neighboring town and peddle them out from house to house. Many dollars thus fall into my purse from odds and ends, seemingly of little consequence among the abundance on the farm.

Peddling is not pleasant work, but I firmly believe that the farmer who grows a miscellaneous lot of stuff must learn to peddle before he can realize the full measure of success. In common with most



CALIFORNIA STATE BUILDING.

farmers, I would rather follow the plow all day or spend a hard day in the harvest-field than to peddle out one load of farm produce, but as with the merchant, there are times when one's stock must be reduced and turned into cash, and if peddling is the only way in which this can be done, we must learn to peddle. BARTON HALL.

## STATE BUILDINGS AT THE WORLD'S COLUMBIAN EXPOSITION.

The Illinois building is the largest and finest of the state buildings. In it are in-

a mile in length. At the time of my visit the stock show had not yet been opened. It will not be open until some time in August—one more reason why farmers will find it advisable to defer their visit to the early fall.

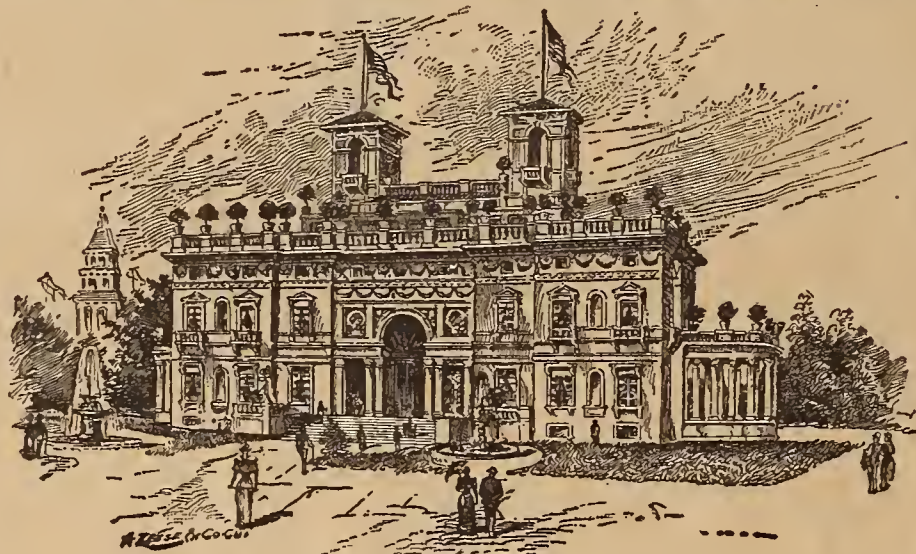
One of the things exhibited in the agricultural building, and of special interest to the progressive farmer, is the exhibit of fertilizers, fertilizer machinery, etc. Most of the leading firms are represented. What I missed, however, or did not happen to find, was a complete exhibit of fertilizer distributors, drills, hand-sowers, etc. It seems to me that it would have been to the advantage of the various fertilizer manufacturers and dealers to make a collective show of this kind.

I was especially attracted by the exhibit of the German kali works. In a highly artistic pavilion inside the great hall, these people show samples of all the different productions of the salt mines at Leopoldshall and Stassfurt, Germany, the only ones in the world now yielding our supply of salts of potash. Undoubtedly many of my readers have recently noted their advertisements in the agricultural papers. In their claims as to the value and need of potash, they may be inclined to state their case as strongly and emphatically as possible, and we will take their words with a trifle of allowance. Still, I must admit that potash—more potash—is one of the great needs on many farms, and often more urgently demanded for best success than the other elements of plant-food. This is especially the case where fruit, potatoes and tobacco are regular and staple crops.

About the only competitors, too, which the owners of the German kali mines have are the dealers in Canada wood ashes. The competition seems sufficient, however, to keep the prices of potash fertilizers at a reasonable figure. If it were not for the Stassfurt product, the Canadian ash dealers would have things all their own way, and perhaps bleed us unmercifully; for in many cases it would be more profitable to pay double rates for potash than to let our orchards go without.

One of the samples shown by the German kali works in their exhibit is a mixture of kainite and Thomas slag. I cannot give the proportions, but consider it a cheap and effective general manure for fruits, clovers, etc., and for grain crops, when a reasonable time can be given for it to take effect. I think this will prove of especial value for the purpose of enriching mucky soils. Wherever the application is to be made in the spring, for a crop maturing by mid-season of the same year, however, I would not use nor recommend it. Fall is the time to apply this kind of fertilizer. Yet I have seen astonishing results from Thomas slag applied on buckwheat only just when the latter was sown.

This reminds me, also, that in a book entitled "Improving the Farm," and recently issued by the Rural Publishing Company, of New York, I saw a chapter on "Artificial Ashes." Artificial ashes indeed! I think the idea in itself is an absurdity. Ashes are not a complete manure. They are a means, not an aim. We use them because, in a measure, they



NEW YORK STATE BUILDING.

teresting exhibits of the products, industries and arts of the state.

The style of the architecture of the California building is the same as the old missions, built by the Spanish pioneers on the Pacific coast. The lavish display of California's famous products shows the enterprise of her citizens, as well as the generosity of her soil and climate.

The front of Pennsylvania's colonial structure is an exact reproduction of old Independence Hall. Old liberty bell is the shrine of millions of visitors.

New York's beautiful building contains many interesting exhibits, mostly of a historical character. In size it ranks third, and in style it is a modification of the old Van Rensselaer residence.

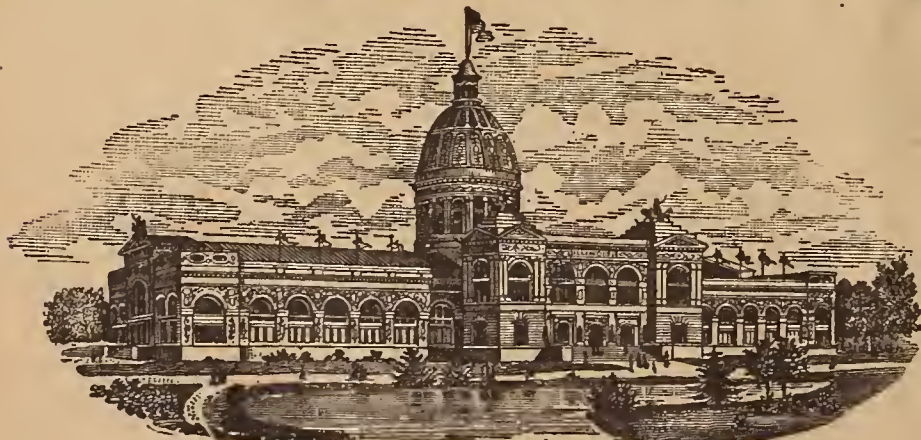
The Indiana building is French Gothic in style. In itself it is an exhibit of Indiana building material, as nearly everything used in its construction comes from that state. Although primarily intended for a Hoosier club-house, it contains an exhibit of state products.

## WORLD'S FAIR AND OTHER NOTES.

THE EXHIBIT.—Possibly a hangman may find nothing in the exhibits relating to his particular industry. That, however, is an exception. I do not remember any line of business not represented in some way. Surely, the soil-worker finds enough things that are of particular and professional interest to him.

In the southeastern part of the grounds, almost wholly surrounded by water, and presenting an 800-foot front to the "basin," with its avenues, pavilions, Columbus and electrical fountains, stands the building of agriculture. It is 500 feet deep, and has an annex of 312 by 550½ feet.

All this vast space, both on the ground

ILLINOIS STATE BUILDING,  
WORLD'S COLUMBIAN EXPOSITION  
CHICAGO 1893.

they plead poverty, and mainly because they lack funds with which to purchase articles on the molasses and salt-mackerel order. Too few of us realize the full value of that which is raised on the farm and used in the family. We are prone to measure our success in farming by the balance of cold cash in hand at the end of the year. I concede that cash, and plenty of it, is a mighty convenient thing to have, but what when every dollar of it must be closely

people for ignorance, but in this age of progress and of wits sharpened by keen competition, is ignorance excusable?

City life taught me that if I had anything to sell and no customer appeared in the usual routine of business, that the only way to dispose of my commodity was to find a customer, and hunt until he was found. This habit I have carried into farm practice, and I often load up a wagon with a few baskets of fruit, a small lot of veg-

are a waste product, and they furnish us chiefly one of the mineral elements needed in our manures. But ordinarily we combine them with other manures, in order to add to them the other element or elements required for our crops. We have no reason whatever to try to make a substitute for ashes, when we can just as easily make a better, more evenly balanced, and therefore more complete manure. When we make combinations of manures, our aim must be to produce an ideal fertilizer for our special purpose, not something resembling ashes or any other waste product.

The soil-tiller often finds himself in the situation where he can make use of mineral fertilizers, and dispense with the more costly nitrogenous manures. This is the case, usually, on soils rich in decaying vegetable matter, reclaimed swamp lands, etc.; also in bearing orchards and small fruit patches, and in the production of peas, beans, clovers, etc. In all these emergencies we want an evenly-balanced mineral fertilizer; in other words, a fertilizer that furnishes both potash and phosphoric acid in about equal proportions. We have no use for that absurdity, "artificial ashes," but would use ashes in combination with some phosphatic fertilizer, or in the absence of natural ashes, a combination of potash and phosphate, such as the kali works offer in their mixture of kainite and Thomas slag, or which every farmer can mix for himself after purchasing the two articles separately wherever he can get them the cheapest. In place of the kainite, too, he may use muriate of potash, if he so prefer, and in place of the slag, one or the other of the plain phosphates or superphosphates.

The kali works have taken me entirely off the fair grounds. While on the subject of fertilizers, however, I feel that I must also pay my compliments to nitrogen, and will mention that in the pomological exhibit, near Midway plaisance, some tests are being made with nitrate of soda. It was only a little bed, however, having a few short rows of grasses, barley, oats, potatoes and corn. I do not know what the later developments show. At my visit, the grasses fertilized with nitrate of soda were far ahead of those that had received no application. In the grains and potatoes, however, I could not as yet see the slightest difference resulting from the use of the nitrate.

T. GREINER.

THE AFTERNOON LUNCH.

The afternoon lunch ought to be an established institution on every farm from June to October, or as long as excessive toil is carried on in the fields. The forenoon does not seem quite so long as the afternoon; at all events, there is less time between meals.

On many farms the milking and the chores are done before breakfast. After breakfast the farmer and his men go to the field, but not so in the afternoon. Then the work in the field is continued till six o'clock, or even later, to "hoe out a row." Then it is time to milk and do the chores.

It is a pernicious custom—a destructive one—destructive of digestion, if not of life itself. It were better to stop work in the field at five o'clock, have supper, and then do the chores; but the farmer does not like to divide the work, or rather, make a break in it—does not want to wash up unless the day's work be done.

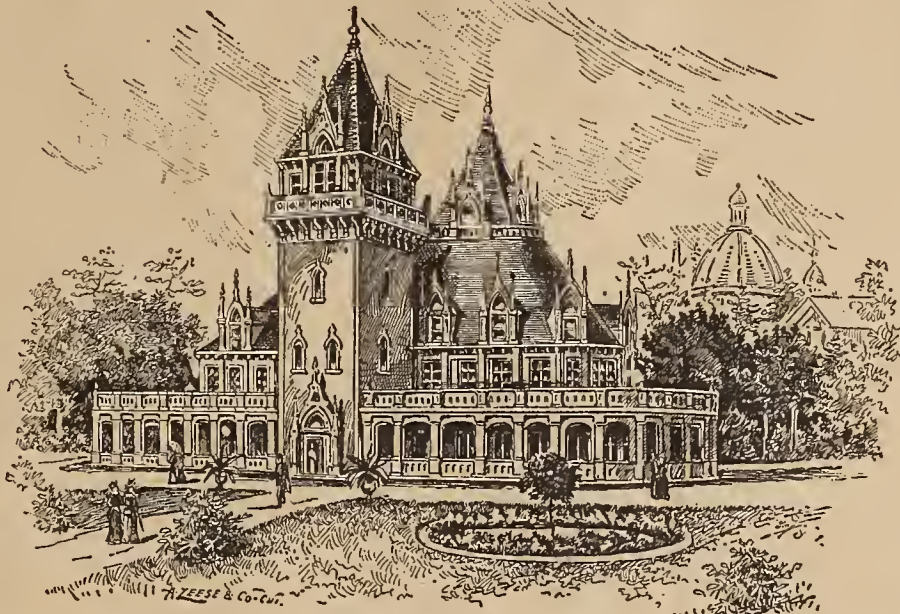
And therefore, it may be eight o'clock before he is ready for supper. This makes a long day for the farmer and for the members of the family indoors. Their work is even later than the farmer's, for they have the table to clear and the dishes to wash after the supper is over.

The afternoon lunch is a welcome help in the afternoon, and I hear the farmer's boy say that it is good any time, as often as it is possible to get it. Perhaps the lunch, in some cases, is responsible for the long time between meals. If it were abolished, the farmer might be led to change his plan of work—stop earlier and eat before chore-time. But as the supper comes in the evening, the lunch helps the farmer to bridge the interval between noon and sleeping-time.

What is there more cheering to laborers on a farm, on a hot afternoon, than to see the relief-train issue from the house and move toward the field, the train led, perhaps, by mother, wife or sister under an umbrella, followed, maybe, by other members of the family, bearing various good things to satisfy hunger and quench thirst. It is very cheering and welcome under any circumstances, even if the maid-of-all-work constitute the whole train and come on the scene with her flow of good-natured brogue and blarney.

Now, in lurching in the middle of the farmer's afternoon, about four o'clock, there is something more than food for the stomach. There is rest and recreation for both mind and body. Cares are thrown off and for the moment forgotten, the tension is removed, and the lunch and the lunch hour become a prop in greater and more successful effort; that is, the man who rests and lunches may accomplish more, and do it easier, than the man, the "staver" and the driver, who rushes ahead, and who probably believes that it is a waste of time, and possibly an evidence of shiftlessness to rest half an hour in the busy part of the day.

The lunch, or what may be equivalent to it, is as good for draft animals as for men. For example, in the spring a large field of greensward was to be plowed. In the fore-



INDIANA STATE BUILDING.

noon a farm-hand took the plow, being his own driver. In the afternoon the milkman, who was away in the morning, took his place. Now, at noon it was noticed that the horses were more weary, apparently than at night. They appeared to be used up, and had perspired a great deal, while at night, although showing the effect of work, were in much better condition.

The cause was easily discovered. The horses—heavy mares—were free workers, a little too free, and ought to be held back a little; but the hired man had not only let them go, but probably urged them a little, as he was as free as the horses—ambitious to do a great deal in a short time, at any expense of muscle, giving them no time to breathe at the end of the furrows. Thus they went all the forenoon, back and forth, without a slack of draft anywhere, except in turning.



PENNSYLVANIA STATE BUILDING.

But the other man stopped perhaps a minute after each furrow, and after three or four furrows stopped perhaps five minutes, and while the horses rested, he lifted saddles and other parts of the harness and wiped with a handful of grass. This stopping, these breathing-places were lunches to the horses.

As to the work done, that in the afternoon, when the horses had lunches, was much better than that done in the morning, when the driver was trying to see how much ground he could cover. The morning plow went over a little more ground than the afternoon man, but not much, for, rushing ahead at such speed, the plow was often thrown out, as the work showed, and he had to back sometimes six feet to get back in the furrow where he left it. The lunch system pays, whether for man or beast.

GEORGE APPLETON.

WORLD'S FAIR.

To the many thousands of readers of FARM AND FIRESIDE I desire to say a few words of encouragement, to prompt you all to attend the world's fair. This great exposition is beyond human comprehension, unless a large amount of time and money is spent to study it carefully. The immensity of it is appalling at first sight.

The first world's fair was held in London in 1851, on 21 acres of land; the second in Paris in 1855, on 24½ acres; the third in Loudon in 1862, on 23½ acres; the fourth in Paris in 1867, on 37 acres; the fifth in Vienna in 1873, on 40 acres; the sixth in Philadelphia in 1876, on 60 acres; the seventh in Paris in 1878, on 60 acres; the eighth in Paris in 1889, on 75 acres. And this,

ninth and last of all, is to-day being held upon 700 acres of land at Chicago.

This greatest educator ever offered to the sight of man, is here for your benefit and mine. It is an opportunity never to return, and we should all embrace it for the good it will do us. To compare the products and resources of another earth, together with the genius and mechanical industries of the entire world, on this seven hundred acre fair, and to know that every acre of it is as fully loaded with sights as any of its predecessors have been, may give one a little conception of what it means to go through it.

The idea of seeing all this in two or three days, or being shot through the fair at any such rate of speed, is preposterous. It cannot be done. It would shred your clothes to tatters to be whirled through all of it in so short a time. So don't go with

Your city of Springfield, Ohio, has got her fair share of representation in that six acres of room, and a sharp set of agents to tell the good points of the machines.

The crop and vegetable exhibit of the whole earth here inclosed is a wonderful sight. It speaks volumes in praise of kind Providence to know no place has been forgotten; even Greenland, where I thought the inhabitants subsisted on blubber, and Asia, where the pole picture of rats showed their food product, in my old geography days. We here see they all grow an abundance of vegetables to make life bearable and food palatable, providing the inhabitants possess the skill necessary to cook it suitably.

I think the farmers of our eastern and middle states, where we depend upon rainfall for vegetation, will be thunderstruck at the splendid long straw and heads of grain grown by irrigation in all of our new, far-western states, the clean straw of grain from five feet tall to six and a half, the heads of grain in many instances from four to six inches in length. After looking very carefully in one for the Yankee splice, they will all call loudly for irrigation here at home. And when statistics show us the yield of wheat per acre is from fifty to sixty bushels and that of oats from one hundred to one hundred and fifty-six bushels per acre, it will make many an Ohio farmer think he is a long distance yet from perfect farming.

The horticultural crop in this agricultural building, although in glass cans, shows one many good places to go when they have leisure and money to spare. The one farm exhibit made by Mr. W. O. Bush, of the state of Washington, is worth the entire trip to Chicago to see. It is simply ahead, by far, of the entire county exhibits of many county fairs in Ohio. It did not seem possible to me, before my visit, that the state of Washington was so important and so favored a place to live. She has an Ohio-born and educated senator, who is responsible for the magnificent display and sensible advertisement of that state's resources.

The gallery of the agricultural building is well filled with the good things of this earth. You must all go up and see the Ohio maple sugar and syrups made by my neighbors here on the western reserve. It shows skill and enterprise of man, while the apiary gives a magnificent display of beautiful honey, which is not entitled to as much credit, for honest bees always do good work.

To see what becomes of the immense grain crops of the Dakotas, you need to look at the model of the Washburn flouring mills of Minneapolis—where ten thousand barrels of flour are made per day. The glass bin of grain holds one thousand bushels of wheat, and it requires just forty-five such bins of wheat every day in just this one mill alone. Of course, you will all pass through the old big barrel house and eat one of Aunt Jemima's hot cakes, free: and I do assure you all the free things you find there you better take.

I did not start in to tell you what they have there on exhibition, for fear you would take my word for it and not go and see for yourself. If you will make an intelligent and careful survey of the contents of this one building alone in three days, you can beat me all to pieces.

H. TALCOTT.

SAGE CULTURE.

Broad-leaved sage is the kind to grow. Sage seed should be sown early in April in a rich bed, and the plants transplanted to a piece of land from which an early truck crop has been cut. The plants, set in rows 2½ feet apart and 12 inches in the row, will, if land is good, nearly cover the ground by September, and as all the growth is young and tender it can be cut off at the ground and cured in the shade.

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## Our Farm.

### GARDEN AND FIELD NOTES.

**A**BOUT MUSHROOMS.—The subject of mushroom growing just now interests me greatly. The question is, can't we raise this product during July, August and September, when the demand is best and prices highest? There is no difficulty now of getting one dollar for every pound of sound mushrooms that we can raise. It seems a big sum of money for a small lot of stuff that is mostly water, and there can be no doubt that mushroom growing pays big profits. The returns are so satisfactory, indeed, that the majority of people engaged in the industry try to keep their methods and profits a secret for fear that the publication of the truth would induce many others to raise mushrooms, and unduly increase competition. This alone is an admission that there are no great difficulties in the way of mushroom production. On the other hand, I find that there are knacks and kinks about the business that have to be learned.

Thus far, without just the right kind of facilities, I have not been able to make a howling success of it. One of the chief troubles is that stale, worthless spawn is plentiful, and fresh, live spawn rather the exception. Even responsible seedsmen will sell you the lifeless article, simply because they do not know that it is lifeless and worthless. Nor is it quite easy to tell the difference between good and old spawn. When the spawn is fresh, and consequently good, it has a distinct mushroom smell which is lacking in the stale article. But I miss this smell in samples not quite fresh and yet not too old to give good results.

A new variety of mushroom has this spring been introduced under the name *Agaricus subrufescens*, and under the claim that it is a "hot-weather" mushroom, and of more robust growth, generally, than the common *Agaricus campestris*. Spawn of the former, however, is yet held at a high figure, although my limited experience with it leads me to think that this spawn can be produced by every grower easily and cheaply. I shall, later on, give my way of making it. Am still experimenting quite extensively with the new mushroom, but find that it does not overcome the great difficulty in growing the crop during hot weather; namely, maggots. Every specimen which I have allowed to come to full development in my greenhouse beds this spring and summer was full of little worms, and made worthless by them. Possibly we may yet learn ways in greenhouse management of overcoming this difficulty.

The first aim in growing mushrooms under glass in hot weather must be to keep the atmosphere moist, and this I am trying to accomplish by spraying the whole interior of the building frequently and thoroughly. The glass is thoroughly covered with whitewash.

Beds are made on and under the benches. Those on the benches consist of a layer of horse manure (some fresh, some older from the blacksmith shop), or a mixture of horse manure and spent hops, three or four inches deep and well packed down, and a two-inch covering of rich, loamy soil. A liberal quantity of spawn was just pressed down upon the manure. A light covering of straw upon the soil prevents rapid evaporation. Now, while the mushrooms make their appearance, I shall occasionally spray with buhach-water in place of clear water. I hope this will rid the house of insects and maggots. Surely there must be some among the readers of FARM AND FIRESIDE who have experimented, or are experimenting, with the new mushroom. I shall be glad to hear from them concerning their successes or failures. What we want is to learn to produce good mushrooms at a time we can sell them for big prices.

Where caves and abandoned tunnels are available for the purpose, mushroom growing can be carried on the whole season long. About thirty miles from here—in Akron, Erie county, N. Y.—is an abandoned stone quarry with caves to the extent of thirty or forty acres. A resident of the place utilizes about a tenth part of this area for mushroom growing. The temperature in these caves ranges between 55 and 65 degrees Fahrenheit, never more and never less. I believe that the ordinary variety (*A. campestris*) is exclusively grown. The product is sent to the eastern cities. The spec-

imens are large and fat, and entirely free from the troublesome maggot.

These caves are somewhat like a miniature fac simile of the catacombs of Paris, in which mushrooms are grown in a similar way, but on a much larger scale. Undoubtedly there are thousands of caves, tunnels, stone quarries, etc., in the United States that offer opportunities for the mushroom grower as good as those near Akron. If I had access to a cave of this kind I would not hesitate a minute to engage extensively in an industry which promises as good pay as mushroom growing. I will thank any reader who may know of a suitable cave in his vicinity, for information about its location and a general description of it.

**THE SEASON.**—The present season in my immediate neighborhood is one of the most discouraging that I have ever experienced. A superabundance of water in early spring and delayed planting in consequence, is followed by a prolonged drought which keeps most crops at a perfect standstill. The season is good for melons and squashes, fairly so for tomatoes and corn, but potatoes and most garden crops suffer terribly. The potato-bugs have a good time, but if rain does not come soon to give the potato-plants a new start, even they will starve, for there seems absolutely no more growth of foliage. The potato crop in this vicinity will be a complete failure. My carrots, my beets and other roots are pretty small. Celery makes no growth, and onions remain undersized. As tree fruits are also a general failure, the outlook is not flattering. Grapes, however, are promising a full crop, and the dry season has thus far kept them free from fungous diseases. There is always a silver lining to every cloud. What hurts one thing helps another, and, after all, I imagine we shall not have to do entirely without the luxury of fruits. And if everything fails here, we are reasonably sure of a full supply of California fruits. Still, I would like to see one of the old-fashioned fruit years, with the luscious peaches, cherries, plums, pears and apples we used to have in such abundance that we did not know what to do with all this wealth. This year we will have some difficulty in filling our cans and jars with the usual variety of fruits, there being few cherries, few plums, few pears and next to no apples. Possibly evaporated vegetables will have to make up, in a measure, for the deficiency. Let us make some experiments in the evaporation of sweet potatoes, tomatoes, sweet corn, etc. Peas and green Lima beans are also good material for the evaporator. JOSEPH.

### Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

#### TO PREVENT TREES FROM SPLITTING.

It seems to be the nature of some varieties of apple-trees to grow in crotches, or forks. With some varieties this makes but little difference, as the forks are solid and never split, but with others, such as the Belmont (Golden Gate), the fork is never solid, and when loaded with fruit is apt to split, and often fine, large trees are ruined. This can be avoided in different ways, but the best way is to take a sprout that is growing on one branch of the tree and graft the upper end of it into the opposite branch. If this is done when the tree is small the sprout will grow with the tree, and make a strong brace, and the larger the tree grows the stronger will become the brace.

#### SHADING THE SOIL AROUND FRUIT-PLANTS.

The well-known fruit grower, — F. Powell, of Ghent, New York, exhibits Fay's Prolific and Cherry currants, at the world's fair, of remarkable size and color. He says that he has learned a lesson during the past four years on currant growing on a large scale for market. He manures highly, and cultivates between the rows until the fruit is well started. He then sows buckwheat to shade the soil between the rows during the heated period. This is a great benefit to the ripening fruit, but a still greater benefit to the foliage in the work of preparing the wood for the next season's crop of fruit buds and fruit.

On the rich soil the buckwheat makes a strong growth and reaches well to the top of the bushes, and even grows up in the open spaces between the currant branches.

Without this soil shading, and even twig shading, the bushes are weakened by premature loss of foliage. Mr. Powell claims that his crops are largely increased by this method, and the aggregate selling value is

still more increased by the larger size of berry and bunch, and the finer shade of coloring. The same plan has been tried in gooseberry growing, and by early sowing of the buckwheat the mildew has been largely controlled without spraying.

In these notes we have often called attention to the value of soil shading in young orchards of the apple, pear, cherry and plum, by sowing buckwheat the middle of June. If any one doubts our statement, let him make the experiment of soil shading on one half of the orchard.

In New Jersey the shading is done by a covering of marsh hay put on in June. Perhaps it is quite as effectual as the buckwheat, but is far more troublesome and expensive. Clover as a soil shader is quite as valuable, but in practice it soon runs into blue-grass and other grasses, which are as bad crops for the orchard as oats or other cereals, which rob the trees of needed moisture.—Prof. J. L. Budd.

#### ANCIENT BRITON BLACKBERRY.

Prof. Bailey gives in *American Gardening* a symposium of eastern and western experience with the Ancient Briton. The reports of well-known growers indicate, in the words of the *Rural New-Yorker*:

"That the berries average medium or somewhat less, unless the canes are cut back so as to moderate its natural propensity to overbear. The quality is fine, the berries free of core and jet black. The canes are no less hardy than those of Snyder, but the thorns are somewhat more numerous and accentuated."

#### INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

**Diseased Rose-bushes.**—E. W., Parkersburg, Oregon, writes: "My rose-bushes have some kind of blight on their leaves, a specimen of which I inclose. They are also troubled with mildew."

**REPLY:**—Pick off and burn the diseased leaves and spray the plants with Bordeaux mixture made as recommended in an article on "Spraying Grapes" in FARM AND FIRESIDE of March 1st last. This will not cure the disease, but will prevent the new growth from becoming diseased. It should be applied once in two weeks, and is quite harmless. It seems to me, however, that you have very weak growing roses, have them in a position where they do not get much air or sunlight, or the season with you must have been very warm and moist to have them so very much diseased. In a moist climate roses need plenty of light and air, and without them they cannot be healthy.

**Time to Kill Trees.**—O. R., Westernport, Md., writes: "Is there a special day in the year when if you cut a small limb or take a piece of bark off a tree of any kind it will die? Is there a special time for mowing down briars or undergrowth in the woods so they will not grow any more? Old men here say there is, but none of them can tell the day. Please let me know the month and the day of the month."

**REPLY:**—There is no special day in the year when if sprouts are mowed down or trees cut that they will not sprout again; but for about two weeks in the latter part of June or the first of July, if they are cut they will generally die. The best time for one tree might not be the best for another. If trees are cut even in the latter part of July they seldom sprout much, and if at all, only very weakly. The reason for this is that every tree stores up in its roots, stems and branches, in the latter half of the summer, a lot of food which it feeds upon the next spring and uses to make the rapid spring growth so characteristic of our trees. By the first of July this stored-up food is about used up, and after that not much growth is made, at least by most of our trees, but all the force of the tree is put to work to store up food for the next year. If cut when all the old food is used up and no new food has been collected, there is nothing with which the plant can form leaves, without which the plant cannot grow.

**Saw-fly.**—T. M. E., Atkinson, Neb. The wasp-like flies you sent to be named are the males of the large saw-fly (*Cimbex Americana*) which feeds on the leaves of the willow, but attacks also poplar, basswood, elm and birch. Early in June the eggs are deposited just under the skin of the leaf. When they hatch the young larvae, which are bluish gray in color, do not at once leave the blister-like place under the skin where the eggs are laid, but remain protected by it for some time. Eventually they leave by a slit in the skin, and attain full size by the last of July. They are now two inches long, and enter the ground to a very slight depth, barely covering themselves, and spin a tough, coarse silken cocoon, inside of which they change toward spring to pupa. During the month of May the following season they are transformed into winged insects, and start a new generation. This insect may also be distinguished by its peculiarity of ejecting a watery fluid when its caterpillars are disturbed. The worms often cause serious injury to the willows, but may be kept in check by spraying the infested foliage with poison at the rate of one pound of Paris green to one hundred and fifty gallons of water. The worms are so large and drop so readily to the ground when the tree is shaken that hand-picking is a very effective remedy.

The cocoons also may be gathered where they are formed. In many cases the rows of willows and poplars are mulched, and all the worms invariably seek such places to form their cocoons. Large numbers of them can thus be gathered during autumn and early spring, when the ground is not covered with snow; or better still, the straw used for mulching can be collected in heaps and burned.

**Young Apple-trees Dying.**—R. C., Wakefield, Neb., writes: "Please tell me the cause of my apple-trees dying. I set out a number of them last year, and they grew all right. This spring they leafed out and then died. I pulled them up and found that the roots of some were alive, and others dead and rotten. On one that I pulled up I found some bugs that looked about like ants. They were a little larger and longer, and white. Can you tell me what this insect is?"

**REPLY:**—It is quite out of the question for me to tell you just what killed your apple-trees. Last winter was severe, and many young plantings were injured. Then you may have varieties that are not hardy enough for your section. But it would appear from your statements about the insects you found on the roots that the trees were seriously injured (weakened) by the woolly aphis, or root-lice. These have ruined and are ruining many orchards, especially in the West. They may be killed by scraping the earth away from the roots and then pouring scalding water on them. But in case I had trees as small as yours, I should dig them up this fall and dip the roots into hot water or kerosene emulsion or strong tobacco-water, heel them in for the winter and set out next spring in a new place. I would not put them back into the soil where they have been growing until after one year. It is of great importance that all apple-trees to be planted should be carefully inspected, and if they show the least signs of this pest being on them they should be treated as recommended. We need to exercise much more care than is customary in dealing with this pest.

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## Our Farm.

### THE FARMER'S HOME.

There is a vast amount of discontent on the farm—too much for the welfare of our people. Its expression is becoming a fixed habit, and nothing could be more deplorable. The farmer finds his hours of labor long, he says, and profits small; the wife has too much work to do; the daughter is sure she will not marry a farmer, and the son wants to go to the city. What a condition of affairs! It is not found in half our country homes; but alas! in enough of them to become a disturbing element, to impress all other classes unfavorably, and in a degree to affect those who like the business of farming. What is the matter? Is there no cure? Shall the lives of nearly half the American people be spoiled by discontent and vain longings?

Of course, discontent is found everywhere, but this prevalent exaggeration of the farmer's ills is bringing an undue share of it into our homes, and it is time to try to mend matters. I have a few suggestions to make, hoping that they may meet with the favor of some who are not satisfied with their surroundings, and who are willing to act, rather than grumble.

The man who loves his family and finds it dissatisfied, must soon join in the discontent, the profits grow less and matters become worse speedily. The farmer's wife—the average one—does have a harder lot than the wife of the city man of equal means. The daughter has fewer advantages, as such things are measured by the young, and the son sees more glitter and attractions in the town than on the farm. Truth demands this admission. The question arises, how may all this be changed sufficiently to give the average farmer's family the happy and satisfied life that is the right of every human being?

The boarding-house feature of farm homes is thoroughly unpleasant. Employees must be had by the farmer, but he is the only employer who is expected to destroy the privacy of his home and burden the homekeeper by having boarders from one year's end to another. It is not that the employer is any better socially or otherwise than the employee, but the homes are few in which any regular boarder—even a minister—does not destroy much of the true home feeling and add much to the work of the wives and daughters. The city man adds a dozen men to his force in the morning, and it is naught to his wife—her home is not a boarding-house. The farmer's wife too often finds that a hot kitchen requires her presence in it nearly every hour through the day, and that no cozy home circle is possible at night—why should not a little envy of town sisters enter the mind?

Some boarding of hands is necessary, but matters can be mended in a great degree. There is no better class of help than married men in tenant-houses near the farmer's home. Such houses can be built at a small outlay of money, and should stand within one fourth mile of the barn. Then the tenant can take his meals with his own family, have his own home circle, and while enjoying his life, remove a burden from his employer's family. All regular hands should be provided for in this way when possible. It pays to spend a little money and take a little trouble to get such houses and such tenants on the farm. Better accumulate money a little more slowly and make such provision for the farm help. If the regular hands can board in their own homes, then the transients in the busiest seasons can be cared for in the farmer's home without burdening any one seriously.

Eagerness to make money leads to much false economy. A little money wisely spent in the home pays a big interest. There should be a constant effort to make the home attractive. Large sums are not needed for this purpose. An abundance of shade, a neatly-kept lawn, a few neat walks, plenty of flowers and a comfortable house are sufficient. The coolest rooms of the house should be the ones chiefly used by the family. Enjoyment of the boasted comforts of country life should be the watchword of the home. The boy who is compelled to sleep in the hot attic, while the cool bedroom remains closed, awaiting no expected visitor, will not value his home, and why should he? The best is none too good for the owners—the parents and their children.

By what right does the sweetheart get

drives in the evening behind a fresh horse, while after becoming a wife she stays at home? Do such things happen? And truth compels the statement that often the wife is to blame. She learns to live to work, and what does the daughter see in such a life? I know from experience that the net income will not suffer if field work is dropped at noon every Saturday, and it often pays to shorten other days an hour or so. No man can succeed unless he looks outside the furrow now and then. Outside business demands some attention, and farmers lose more by failing to stop work occasionally than they do by stopping unnecessarily for pleasure. These times furnish opportunity for a little outing—a rest and change for the wife and children. Then why not improve them?

I have not drawn a picture of some farmer's homes. I am acquainted with many that are beyond criticism—some that are homes in every sense of the word, being comfortable, neat in all their surroundings, and enjoyed by those who do not value the possession of dollars above the enjoyment of life. But it must be admitted that the average farmer is too much engrossed in his work, and too much pushed by it, as a result of trying to do a hand's full work while managing his farm, to take care that the home attractions be as great as they should be. Do not too many of us forget the true object of our lives? What is money that we should worship it, and what are large farms to us when we form habits in their acquirement that prevent us from getting the best of life? The young members of the family cannot see the worth of a life that is one continual "grind," and then comes unrest and a longing for the attractions that they think are seen in towns.

The farmer's home! If it be the center of interest; if it be the best in every way possible that can be provided in reason, be that ever so humble from a financial standpoint; if there be comfort and good cheer and holidays and good literature and games, then all the necessary hard work will not drive the young people from the farm, but will only give the more zest to its pleasures. It is time that we think on these things. Nature enables us to make our homes ideal ones—storehouses of plenty for the physical, intellectual and social. When our children are drifting away from agriculture we should consider the possibility that the cause could have been removed by us. When we make our lives worth the living, in the true sense of the word, we may expect the young people to want to follow in our footsteps, only those leaving who have a special aptitude for other work. DAVID.

### CHEAP COW FEED.

The lower the cost of producing milk and butter, the greater the profit, so we must feed the cheapest good food we can get. In summer there is nothing so cheap, and at the same time so good, as pasture; but in winter the selection can be made from quite a large number of kinds of feed. Ensilage, when properly put up, is a cheap and good cow feed, but it should always be fed in connection with clover hay, if possible. If I had to choose between all ensilage or all clover hay, for roughness, I should take the clover hay, if I were feeding cows for the production of butter.

As hay is now being exported to Europe from this country, on account of a drought there having cut short the crop, it may be that the foreign demand may keep up and therefore make an impression on the price here. If so, we must save all of our corn fodder and all kinds of feeding stuffs that will take the place of hay, so that we can sell the latter, if the price justifies.

Those who keep cows for the production of butter do not require

### SUCCULENT FOOD

So much as those who sell milk. While cows are fond of any kind of succulent food in winter, I have not found it to be a necessity when they are fed for the making of butter. But many dairies are kept to make milk to sell in cities, and here is where succulent food comes in as a money-maker, for it will increase the flow of milk, though it may not increase the butter fat.

Ensilage and mangels take first place here, both as regards quality and cost of production; it is now too late to plant either corn or mangels, but if a root crop is desired, the rutabaga and white turnip may be sown, the former at once and the latter in August or September.

White turnips make the cheapest root crop that can be grown; on soil in fair condition, with a little fine manure or some

superphosphate, the seed sown broadcast and lightly harrowed or rolled, a large crop can be grown, the principal cost being the harvesting and putting in kilns, for they do not keep well in cellars. When fed to the cows they should be fed just after the cows are milked; then they will flavor the milk little, if any.

Dairyman near large cities can buy brewer's grains, and when competition is not too great, they may be bought at a very low price; but the cows should have some other grain fed with them, as the brewer's grains increase the milk at the expense of its quality.

### A WARM STABLE

Is an important factor in dairying; the warm stable saves feed and makes milk. While all stables are warm at this season of the year, yet it is a good time to arrange for making them warm in winter, and one of the best ways to do this is to have a large stack of straw near the stable, so that it will be convenient to use for bedding; and also to line the whole inside of the stable, if the latter is full of cracks, as it too frequently is. A wooden wall, an inch thick, lined with four inches of straw, packed tight, will make the inside of a stable as warm as need be in the coldest weather. There is a great saving of milk and butter—therefore of money—in having a warm stable.

There are lots of

### LITTLE THINGS

That can be attended to between now and winter. On rainy days the mangers and feed-bins can be examined, and all cracks and holes stopped. I have seen a half-inch crack in a manger that was wasting lots of food every time the cow occupying that stall was fed. Rats and mice will gnaw holes in the bottoms of meal-bins, which may not be discovered till the meal is nearly all fed out; then a bushel, more or less, of meal may be found underneath the bin, musty and good for nothing, except to use as a fertilizer. For

### FEEDING CALVES,

A pail is generally used, and the calf will very often upset it before it drinks half the milk. If a piece of hoop-iron be fastened in one corner of the calf-pail, the pail may be set in this and be secure; but a box, ten or twelve inches square and six inches deep, made out of inch boards, with the bottom board a very wide one, so that it will project five or six inches on all sides, will make an admirable milk holder, and one that the calf cannot possibly upset.

### THE CALF IN SUMMER,

That is, the young calf, is much better off in a box-stall in a cool stable than tethered out, or even if allowed the liberty of a small pasture lot. Flies and the hot sun are very worrying to a young calf; it can get plenty of exercise in a 10x12-foot box-stall. When three weeks old it will begin to eat grass or hay, and I don't know but what it is better to feed it clover hay the first summer than to give it grass; the danger from scours would be less. There is no good reason why a summer calf should have grass merely because it is the season for grass to grow. It will thrive as well, perhaps better, if it has no grass till the following summer.

We are too much the

### CREATURES OF HABIT.

We do some things and refrain from doing others just because we were brought up that way. In doing many things, we do not give a thought as to why we do them thus and so, but we have always done them that way, and that is reason enough. Now, everything is subject to change in this world; it is a world of progress, of very rapid progress these last few years, and the art of dairying is changing, as well as everything else. We must not let our ideas get iron-clad, so that no new dairy light can be let in; but we should take every means to inform ourselves as to what improvements are being made in our line of business.

Too many dairymen still stick to the old-fashioned appliances; they look upon modern ones as being too "fancy," too unpractical for men who make a living by dairying. The facts are just the other way; the modern dairy appliances are the very ones that the business dairyman should have if he wishes to make the greatest profit at the least expenditure of time and labor.

And, most important of all, the modern cow is so far ahead of the scrub of fifty years ago that she is almost beyond comparison with her. And yet thousands of dairymen are working hard to make money

by keeping scrub cows, and sneering at pure-bred stock as being only fit for rich men to keep. Many are beginning to change, though, and the change to good cows means a change to better feed, better care, better dairy utensils and methods of management in the dairy-room.

A. L. CROSBY.

### FROM MISSISSIPPI.

#### THE ONE-CROP PLAN.

Most southern farmers rely mainly upon one moneyed crop—cotton. In March, April and May the crop is planted; in July the crop has been "laid by," and August and September are passed, for the most part, in comparative idleness; by November 15th the bulk of the crop is gathered and sold, and nearly all the money spent; and then up to March 1st our farmers perform but little work, except to feed the stock and keep in a supply of wood, cating up and consuming largely what they have earned by their summer labor.

They are poor in purse, of course, and will stay poor, and ought to stay poor. A goodly part of the year is spent in talking politics. Too much cotton and too much loafing in town, and too much talking of politics have almost bankrupted this country.

### ROBBERY SYSTEM.

Robbing the soil year by year, and paying back nothing, does not pay in the end. We know some farmers who added largely to their bank accounts by continuous robbing of the soil; but the time came when the soil failed to respond liberally, and in a few years the money in the bank was gone—due to following this persistent and ruthless robbing of the land.

But in time, as a matter of natural consequences, the land had become impoverished, and the farmer awoke to the realization of the fact that in robbing the fertility of his land he had robbed himself, as the gradual disappearance of the bank fund proved. A number of just such men live right here, and their names and methods are as familiar as the nose on our own face or the hand that pens these lines. Some of their heads are hoary with the frosts of old age, but not all of them.

### REDUCE THE COST OF PRODUCTION

Should be the farmer's earnest study. Cost of production is largely lessened in many ways: First, in having the land well plowed and the clods pulverized—in fact, by thorough preparation of the soil before the seed are planted. Second, by using the best quality of seed and putting it in the ground in the right manner. Third, by using good fertilizers of the right kinds and proportions, wisely applied. Fourth, planting, cultivating and harvesting as much as possible by machinery, and substituting animal for human labor.

It does not do to plant a crop on poor land and expect much profit. Poor soil will not produce profitable crops. Common sense ought to teach this. But people do not always use their best common sense to the best advantage. It is usually good judgment that insures success, and bad judgment that results in failure.

If we do not cultivate the mind and use the knowledge that experience and reading impart, then we are wasting our mental capacities and advantages without practical personal benefits in winning financial success—"hiding our light under a bushel"—sacrificing our wealth of natural mind and harvesting thorns and thistles and poverty, when we might have been able to amass wealth in money, wealth in knowledge, and a greater wealth in the reflections of a busy life and days spent for a useful purpose.

### NATURE HELPS.

Let man prepare the soil and fertilize it, sow the seed, cultivate the growing plants, and nature will do the rest. The better the land is prepared, the richer it is made by green or stable manure and commercial fertilizers, and the better the seed and the care in planting, and the more intelligently and thoroughly the crops are cultivated, nature continually assists man's efforts, pursues and finishes its work all the more satisfactorily to the husbandman.

Nature does its work, and does it well; but if man neglects to assist nature, and refuses to perform his duty in making all the conditions the most favorable, then nature, while still doing its work well, cannot be expected to do man's work, too, and bestow bountiful crops and products of superior excellence. In agriculture it can truly be said that nature helps those most who help nature most.

And now, if we do our part well in sowing, fertilizing and cultivating, nature will do the rest—sustain and watch over and develop the plants, and bring them to maturity and fruition.

EDWIN MONTGOMERY.

New terms in the way of liberal cash commissions are given to club raisers for this paper. Write at once for our "Special Cash Terms to Club Raisers," giving full particulars of a plan which practically insures the success of every club raiser.

## Our Farm.

### THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammonton, New Jersey.

#### HOW TO IMPROVE A FLOCK.

It is easier and cheaper for the farmer to begin improvement with his common flock than to expend a large sum for a flock of pure-bred hens. It is well known that with poultry the influence of the male is greater than that of the female, and if the male is strictly pure-bred the chicks will be uniform in color and general characteristics, although the hens composing the flock may be different in many respects.

No better time for procuring the males can be selected than at present, as the yards of the breeders contain more males than will be retained, and the prices will be much lower than in the spring, for the flocks will then be mated and no birds will be easily spared. Procure a strong and healthy bird rather than one excelling in plumage, but do not use a cross-bred male, or one of doubtful purity, even if received as a gift, for if so, all the labor of improvement will be wasted. Only the pure-bred male is capable of improving the flock and adding to the value of the chicks. It has truthfully been said that the male is one half of the flock.

If you improve, first know what you are aiming for. If you desire to increase the number of eggs per hen, the pullets produced next year should be sired by a male of some breed that excels as layers, such as the Leghorn or Minorca, and the market quality need not be considered.

The Leghorn makes a wonderful improvement on the common stock, but the breed is small in size. The Leghorn has yellow legs, which is sought by many, though the color of the legs has nothing to do with the merits of the fowl. The pullets of this cross will be small, but they will be excellent foragers and layers. It is of no advantage to have the hens large and heavy. If large males are used with them the chicks will be large and grow rapidly. The next cross should be by using a Light Brahma male with the half-bred Leghorn pullets, which produces hardy pullets, with smaller combs, and which will be excellent layers. The third year the Leghorns should be resorted to again, and next the Partridge Cochins. By this method plenty of size as well as great improvement in the number of eggs, will be secured, while the breeds suggested are hardy. Crossing is a cheap mode of improvement, and every farmer can have better stock if he will.

#### TOO MUCH SURPLUS.

Look over your flocks of old and young birds and endeavor to estimate their value, both for the present and in the future. Here are, perhaps, several hundreds of young chicks hatched late in the season. They are not large enough for sale as roasters, are too large for broilers, and will not reach maturity in time to prove useful as layers. What is the object in retaining them? They certainly will not bring any larger profit later on, for the reason that while they are increasing in weight the prices are going down, but they are consuming food all of the time they are kept on the farm. The profits are often wasted by feeding more fowls than should be allowed. When a hen is not laying she is expensive, and when a chick is so young that it has to follow behind the market prices it never overtakes them, and might as well be sold at one time as another. Keeping too many chicks only crowds the adults. There may be plenty of room for a limited number, but there is usually too much surplus. The largest profit is secured by those who sell off their surplus chicks as soon as they discover that prices are going down.

#### PROVIDING THE SHELLS FOR EGGS.

It is frequently recommended that the hens be supplied with oyster-shells, as a source from which to permit the hens to obtain the lime that forms the shell of an egg. This claim has never been supported fully, for it is well known that thousands of hens are never given anything of the kind, yet they have no difficulty in securing the needed lime. The matter depends more upon the food than upon supplying substitutes. Grain is deficient in lime and abounds in starch, hence, hens that are fed almost wholly upon grain will produce eggs with soft shells at times, but if

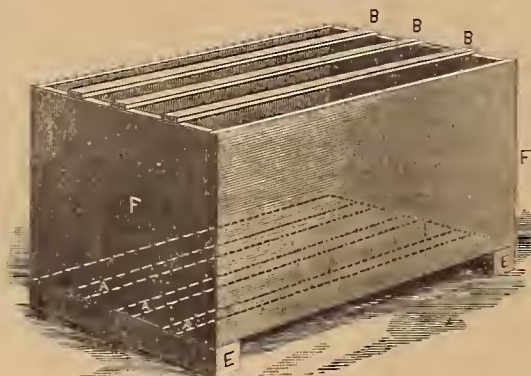
the hens can supply themselves with grass, and have a variety, they will secure all the lime desired from the food, and the lime will be in a soluble condition. If lime is to be provided in any shape, however, there is no better source than bones, which are phosphate of lime, and also soluble after being eaten, which is doubtful in the case of oyster-shells. Bones and clover will provide hens with all the lime required, while bran, linseed-meal and middlings are also excellent in that respect. The farmer who is careful to give his hens a variety and keeps them on a range, will seldom have his hens lay eggs with soft shells.

#### BRAN AS FOOD.

An excellent combination is to use bran and clover together, sprinkling the bran on the clover. It is somewhat similar to feeding a cow, but the fact is that if the hens were fed like the cows there would be more eggs. The feeding of poultry on grain only is compelling them to subsist on concentrated food, and which is lacking in many substances that are of importance in egg production. The cost of bran is but little compared with its real food value, and poultrymen can make it a portion of the regular ration with advantage, as it is not only nutritious, but is also highly relished by poultry.

#### BOX TO PREVENT SITTING.

An arrangement for "breaking up" sitting hens is sent us by Mr. C. A. Massey, of New York, who thus describes it: "Take a shoe-box about three feet long and eighteen inches wide. Knock off the top and bottom, so as to only leave the sides and end nailed together. On the bottom of the box nail slats (A A A) one inch wide and about two inches apart. To the bottom of the end pieces (F F) nail two pieces of scantling (E E) or other wood, the width of the box in length, the scantling to be three inches wide and three inches thick. To the top nail slats (B B B) similar to



BOX TO PREVENT SITTING.

those at the bottom, so as to prevent the hens from flying out, and the box is ready for use. It permits the air to come up under the hen all the time, and as she finds she cannot create warmth under her, she will give up in disgust in a few days. There is no cruelty in the method."

#### THE PROFIT FROM GEES.

A goose lives a great many years and produces young until aged. When once a large flock of geese is obtained, the young may be sold off entirely, except to replace any loss of old ones. Geese bring about one dollar per pair in the large markets, but they also give a profit on feathers. It is not encouraging to keep geese unless they can have some place to procure their food, such as a clover field or pasture. They will cost nothing if conditions are favorable to them, but if they are to be fed they become expensive.

#### SOUR MILK.

Sour milk may be fed to hens, but not to young chicks. Fresh milk should be preferred, but the sour milk may be used for mixing ground grain. When the hens have helped themselves the remainder of the food should be removed. For ducklings it matters but little whether the milk is fresh or not, as they will use it in a short time.

#### GOOD NEWS FOR CLUB RAISERS.

Club raisers for this paper are given larger cash commissions than have ever been offered before, and more liberal than given by any other publication. We wish to interest everyone of our readers in raising clubs, and our new terms are so favorable to the club raiser that it will be an inducement to many to devote all their time to the work. Write at once for "Special Cash Terms to Club Raisers." You will certainly regret it if you do not.

#### DUCKS FOR BREEDING PURPOSES.

One drake and five ducks is the proportion of sexes, and a flock of ten ducks should supply all the eggs that may be required for next year. As long as grass is plentiful, and the ducks have a wide range they need cost nothing at this season, but as soon as it becomes necessary to feed them the flock should be reduced to a minimum, as they are voracious. Young ducks will bring as much now as at any time during the remainder of the year, and it will be an advantage to sell them. The old ducks will prove the best layers for next year.

#### CHEAP GRAIN AND EGGS.

If grain is cheap, sell it in the shape of eggs. It is more difficult to handle milk, butter and cheese than eggs, and the eggs will also bring better prices and can be shipped fully as far to find a market. It may be claimed that in those sections where grain is at the lowest figure, eggs are also correspondingly low, which may be true, but a dozen eggs will take up less space and bring a higher price than the amount of grain necessary to produce the eggs. Then, again, beef, milk, butter, cheese and pork may be produced from grain as well as can eggs, and the inquiry is why should the grain be fed to hens in preference to cattle or swine. Simply because less labor is required in producing eggs. Milk must be handled, pork must be cured, butter must be worked, and be of the best quality, and beef must be sold on the hoof, but the eggs are taken from the nests and shipped at once, and they may be shipped any distance without liability of damage from decay. If the prices are low in one section of the country they may be high in another. Keep a large number of hens and make eggs a specialty, using your cheap grain at home.

#### FEEDING SUNFLOWER-SEEDS.

Those who have raised sunflowers for seed will find them excellent for poultry, but they should be fed as a portion of the ration, by giving the hens a mess of seeds three times a week, allowing one quart to ten hens. The heads may be broken and placed where the hens can pick the seeds if they are not shelled off, by beating with a flail. Keep them for winter use, so as to afford the hens a change.

#### SHEDS FOR TURKEYS.

The turkeys will thrive much better if they have shelter than if exposed to the rains. Because turkeys prefer to roam and roost on trees, they are not exempt from diseases resulting from exposure. Any kind of shelter which keeps off the rain and protects them from winds will answer, but there should be high roosts for the turkeys, or they may not be willing to accept the shed.

#### LICE IN WARM WEATHER.

We frequently allude to this matter, but it is an important one. During the very warm months a clean poultry-house may be overrun with lice in forty-eight hours, as they breed very rapidly and soon swarm over the roosts, walls and in the nests. At night they will not permit the hens to rest and the fowls soon die of exhaustion, though well fed. It is useless to expect eggs if lice can be found in the poultry-house. Clear them out with the kerosene emulsion, or by scalding every portion of the poultry-house with boiling soap-suds.

#### CORRESPONDENCE.

**FEEDING YOUNG POULTRY.**—The standard feed for young poultry all over the western country is a raw dough made of corn-meal. This will answer quite well, provided they are allowed a liberal range, where they can procure grass and insects in abundance; but if confined in coops in small yards, they, like all other animals, must be supplied with a variety of food to keep them in good health. All the scraps from the table may be utilized for this purpose—bits of bread and meat, refuse vegetables, etc., are all highly relished by the young chicks, and nothing of the kind should be wasted. A little red pepper mixed with the food occasionally will be found an excellent preventive of the gapes, so common and so fatal to young chicks, but it should be used sparingly. Green onion tops or garlic, chopped fine and mixed with their food, is highly relished by both chickens and turkeys, and will be found conducive to the health and growth of young poultry of all kinds. In fact, there is scarcely a vegetable used upon the farmer's table but may also be used to advantage in the food of poultry. Thick sour milk and curds of milk make an excellent food for young chickens, and cannot be used too freely, a variety of food being absolutely essential to the highest state of health and the most rapid growth. Another very essen-

tial feature is frequent feeding. When poultry are provided with a good range they are feeding constantly, from morning to night, and a constant addition to the supply of food in the crop appears to be one of the laws of good digestion. When confined to close quarters, so that they can get no food except what is furnished them, this law of their nature should not be forgotten by those who expect to be successful in raising poultry. Any rule in regard to quantity of food is difficult to establish and unsafe to rely upon, because the appetite of a flock is not always the same. They may eat a given quantity for breakfast one morning, and leave half of it the next. Nature is the only infallible guide. A fowl is naturally a most incessant feeder. At liberty they are continually searching for something to eat. In confinement we imitate nature as far as we can in caring for them. In the morning such soft food as they will eat up clean and quickly is given them. If they tire of it, omit it occasionally, once in a month or six weeks. After they have eaten it, sufficient grain should be buried to last them until night, which they must either scratch for or go without. At night give them all the corn they require.

E. R. C.

Independence, Mo.

#### INQUIRIES.

**Hens Overfed.**—J. S. W., Bon Air Mines, Tenn., writes: "What ails my hens? I have two that go on the nest every day, but they do not lay. Are they egg-bound? What is the remedy?"

**REPLY.**—It indicates that they are in a fat condition, probably due to overfeeding with grain. Put them on a grass diet for a week or two, giving no other food. There is no other remedy than to reduce them in condition.

**Moulting.**—E. E. S., Cleveland, Ohio, writes: "I have a small flock, and the hens are now moulting. What should I give them as an excellent food during the time they are shedding their feathers?"

**REPLY.**—Give a pound of ground meat and bone, once a day, in the food of twenty hens, and also a teaspoonful of sulphur to ten hens three times a week. A gill of linseed-meal twice a week to a dozen hens will also be of advantage.

**Temperature of Poultry-House.**—K. F. D., Leadville, Col., writes: "At what temperature should a poultry-house be kept in winter, so as to have the hens in condition for laying?"

**REPLY.**—Any temperature that is not below the freezing point will answer, though the house should not be too warm. If the temperature does not go below forty degrees nor above seventy, the fowls will be comfortable. It is best not to use artificial heat if it can be avoided.

**Dying in the Shell.**—Mrs. M. A. W., Saxton, Iowa, writes: "What is the cause of chicks dying in the shells when fully formed? I use an incubator and hatch fifty per cent, but a large number die just at time of hatching, failing to come out."

**REPLY.**—It is possible that too much moisture is used, which causes the chicks to grow and develop too rapidly in the shells. It has been found that when no moisture is used the first two weeks, and but little the third week, provided no drafts of air flow through the egg-drawer, there are fewer losses of chicks.

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**A GEM ACCIDENTALLY DISCOVERED THAT IS AS VALUABLE AS THE DIAMOND.**

Some years ago Edison, the electric wizard, was convinced that platinum existed in North Carolina, and sent William Earl Hidden, an accomplished mineralogist, in search of it. Mr. Hidden little knew at the time how full of results to him that pursuit of platinum would be. He could not find the desired mineral, but he found something far better.

At Alexander county, a quiet part of the state many miles from a railway, he was directed by Mr. J. A. D. Stephenson to gem-bearing ground, and looking a little more narrowly, found some of the gems. He purchased some land, returned to Edison, reported his vain quest of platinum, then went back to North Carolina. He at once began to develop the mine. Sinking a shaft in a simple way he gradually made the opening larger and larger, until superficially the mine presented the aspect of a stone quarry. Out of this rude pit in the earth were taken unnumbered gems, one hitherto unknown. To this Mr. J. Lawrence Smith, of St. Louis, an eminent scientist, gave Hidden's name, and "Hiddenite," the equivalent of the diamond in value, became instantly the fashion. Its tender-tinted green crystals, its intense hardness, and its new beauties when cut, were only some of its charms. From the day of its discovery to the present it has been a hopeless task to supply the demand for it. Every Hiddenite found is purchased long in advance.

But strange as is this flashing green miracle of the earth, the place of its birth is yet stranger. The laborers who are working in the mines handle their picks with the greatest care. They are on the watch for "pockets." Possibly for an hour the digging goes on, and no "pocket" is struck. Presently the pick goes into an opening; with careful fingers the earth is partially removed, and finally the miner feels with his hands every portion of the walls of the opening. It may happen that his search is in vain, but it is oftener the case that his fingers touch little crystals that are so embedded in the sides of the pocket that their points alone project outward. They are carefully picked out. Perhaps all are beryls, perhaps there are a dozen kinds of gems, or it may be that there are only Hiddenites. Sometimes gems worth hundreds of dollars are thus taken from one pocket.—*Great Divide.*

**HARNESSING THE MOON.**

The force of gravitation is the force which keeps the earth and planets in their orbits, the invisible but potent cord which binds together members of our system.

We have heard the fact stated so often that it is an old story, and accept it without further thought. "But consider for a moment," says Prof. A. J. Dubois, "how great this force must be. A bar of steel one quarter of an inch square can sustain a weight of about 7,500 pounds, or the weight of fifty full-grown men. Now, simply to hold the moon in the orbit, we should have to have a colossal bar of steel, stretching from the earth to the moon, whose section would be 87,500 square miles. An area which would cover the maritime provinces and leave 36,700 square miles over. Or if, instead of one single bar we should stretch a forest of steel bars, each bar one quarter of an inch square, from the earth to the moon, we would have to cover the entire surface of the earth on the side toward the moon with such bars at intervals of only six inches."

Think of it! A forest of steel whose stems would be so close together that a cat could scarcely squeeze through. This is what the "force of gravitation" means.—*Canadian Engineer.*

**THE LINES OF THE HAND.**

Broad nails belong to gentle, nervous, bashful people.

A chained head line indicates want of fixity of thought.

A long liver line shows an excellent natural constitution.

Poe had the ideally psychic hand, with very small thumb.

Round nails belong to obstinate, generally stupid people.

Vigor of constitution is indicated by a long, clear life line.

Soft hands indicate a character lacking energy and force.

Oblique nails are an indication of deceit and cowardice.

A heart line pale and broad shows a heartless debauchee.

Crosses are unfavorable, no matter where they occur.

The Chinese hand is small, slim, and with square phalanges.

A head line very long and slender shows utter faithlessness.—*Press.*

"I have found by experience," says the editor of one of our exchanges, "that little red ants cannot travel over wool or rag carpet. I covered my floor with coarse balze, set my sofa on that, and have not been troubled since. Cover a shelf in your closet or pantry with flannel, set whatever you wish to keep from the ants on it, and they will at once disappear. I have tried it."

**DO YOU HAVE ASTHMA?**

If you do, you will be glad to hear that the Kola plant, found on the Congo river, West Africa, is reported a positive cure for the disease. The Kola Importing Co., 1164 Broadway, New York, have such faith in this new discovery, that they are sending out free by mail, large trial cases of Kola Compound to all sufferers from Asthma, who send their name and address on a postal card. Write to them.

**THE KING OF SIAM AND HIS REALM.**

The king of Siam is a monarch who has more absolute power over his subjects than the Czar. Few men in this world have as much to make them feel big and important, but for one in his position he is a very much civilized and *fin-de-siecle* young person. He is small in person. His head is crowned with a golden pyramid of jewels, rising in circular tiers, diminishing as they go upward, until they end in a long, pencil-like point, which extends nearly two feet above the forehead of its kingly owner. His body is clad in gorgeous coat and vest, heavily embroidered in gold and jewels, and in place of pantaloons he has the rich brocaded surong of the Siamese about his loins and waist. It comes down below his knees at the front, and it looks not unlike a pair of fancy knickerbockers. Below these is a pair of shapely calves in white silk stockings, and his feet are thrust into jewel-covered, heelless slippers, pointed like the shoe of the Turk. The whole makes a costume brilliant and grand.

He is a pleasant-looking fellow, and his olive-brown face is plump and unwrinkled. He has beautiful liquid black eyes, a broad, high, and rather full forehead, and short, straight, black hair. Under his rather short and half-flat nose, there is a silky black mustache, and below this the lips are rather thick, and the chin plump and well rounded. His hands and feet are well made, and he is, all told, a good specimen of Siamese beauty. He is the ninth son of Maha Mongkut, the last king of Siam, and he was picked out of a family of eighty-four children to be placed upon the throne. He has thirty-four half brothers and forty-nine half sisters.

Looking at him it is hard to imagine that he is the sacred ruler of from 6,000,000 to 10,000,000 of people, and it is hard for an American to appreciate his absolute power and his holy dignity. The people of the country are his slaves. He has the right to call them into his service either with or without pay, and all the men in Siam are forced to give him either the whole or a part of their services during the year. His word can throw a man into chains or put him to death; can deprive him of his property or rob him of his daughter. All the women of Siam are supposed to belong to the king, and no one is forbidden to him except his mother. He is supposed to take one of his sisters as his queen, and the nobles of the country offer him their daughters by the score. His court is one of intrigue, and the nobles are glad to have their daughters in the harem, so that they may thus the better attain the king's friendship and powerful offices. He taxes the people as he pleases, and these taxes are so heavy that at times some men have to sell their wives and children as slaves to enable them to pay him. Still his vaults are full of treasure. Siam has no national debt, and he has an income of more than \$10,000,000 a year. He can spend tens of thousands of dollars in cremating a dead wife or in establishing a petty navy.

Still, this king of Siam is the most progressive the country has ever had. He is far in advance of his people, and he is doing a great deal to civilize them. Before his second coronation in 1873, all natives who approached the king had to do so on all fours. They had to raise their hands in adoration to him and bump their heads on the mats before him. The king did away with all that, and he has introduced the American handshake into his reception of foreigners. He gives receptions to foreigners, and he speaks the English tongue, though he never does this when noted foreigners have an audience with him. He has brought the telegraph and telephone into Bangkok, has established a street-car line, and lights his harem with electric lights.

The king of Siam is a Buddhist, and he was for some time a Buddhist priest, as is the custom with all men in Siam. Everyone is expected at some time to enter the priesthood, and this royal monarch, with his millions of treasure, his scores of wives, and his \$10,000,000 a year, once shaved his head and nominally gave up his crown and his harem to wear a yellow cotton scarf about his waist and to go fasting and praying. The Siamese priests are picturesque, as well as devout. The priesthood is useful to married men. A man can be divorced whenever he likes by entering the priesthood for a month or so. Nobles do not require any such formality.

The great event in the life of a Siamese is the function of having his hair cut. This is sometimes a great event in the life of an American young man also. On the top of a Siamese baby's head a certain lock of hair is preserved. All the rest of the head is shaved, but this lock is kept sacred until he reaches the age when he officially passes from boyhood to manhood. Then off comes the lock. The celebrations attending the hair-cutting of the present king lasted three days.

The king of Siam has a very large assortment of wives, but he is so high and mighty that he must marry nobody beneath him in rank, his only equals being his own family. His regular official queen must, therefore, always be his half sister. The queen is not far from twenty years of age; she rules the harem, and she is a very pretty Siamese girl. Her complexion is a light brown, and her oily, black hair, about two inches long, stands straight up and is combed backward from a fair, open forehead. She has beautiful eyes, wears diamond ear-rings, has a diamond pendant at her neck, and her fingers are covered



Every farmer who makes a specialty of fancy stock takes pride in exhibiting the finest product of his farm, whether it be a Shropshire sheep, a Shorthorn cow, a Chester White hog or a Percheron horse. To show to best advantage, the natural colors of the wool or hair must be brought out; the white in particular must be snowy white and not tinged with dirty brown or yellow. A breeder says of the Ivory Soap:

"I have used it for many years and find it for all practical purposes superior to anything I have ever used. . . . It leaves the skin soft and clear, furnishes life to the coat, produces a beautiful growth . . . and leaves it smooth, glossy and free from harshness. I use it with lukewarm rain water, which I find is the best. This forms a rich, oily lather, and helps loosen all stubborn scales and blotches of the skin."

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**THE ONLY FAULT** found with the  
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 is found by the dealer that says "they wear too long." Their unequalled durability is not due to good material and workmanship only, but also to  
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with precious stones. She smokes cigarettes, as does also the king, and she chews the betel-nut, making her teeth as black as jet and her lips stick out. The Siamese say that any dog can have white teeth, but that it is only those who are rich enough to afford the betel-nut who can have black ones.

The debtor class of Siam afford a great contrast to all this gorgeousness. They are stripped naked and, chained to heavy logs, are compelled to work as slaves. The interest on money is so high in Siam, that when a man once gets in debt the most he can possibly hope for by the hardest kind of work is to pay the interest on what he owes. This has discouraged industry and has encouraged the practice of allowing women to do the work. Man, being proud and ambitious, soon tires of industry indulged in for its own sweet sake.

The temples and palaces of Siam are structures of complicated magnificence.

Witnesses in the courts are tortured in very ingenious ways. Certain classes are prohibited from testifying. They include drunkards, gamblers, virgins, executioners, beggars and persons who cannot read. When they whip a man they stretch his skin from his head to his heels, to make the blows effective.

The sacred white elephant for which Siam is famous, if he ever did amount to anything, has gone all to pieces. He is at present a mangy, scraggy, wild-eyed creature, with nothing white about him but his ears, which seem to have leprosy. His keepers are dirty, he is not bound with golden chains, and the only thing royal about him is his bad temper.—*San Francisco Chronicle.*

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## Our Household.

### BEING A WOMAN.

Once a woman came,  
Within a churchyard close,  
Suddenly on a name  
Unhidden by vine or rose.

There it was he lay  
Who long had wronged her sore,  
Harmed her many a day,  
But never should harm her more.

Bare and bleak the stone  
That marked his place of sleep;  
Slowly the days had flown—  
Had no one come to weep?

Long she stood and gazed,  
Disarmed as he who slept;  
Then with her eyes upraised,  
Being a woman, she wept.

—New Orleans Times-Democrat.

### FROM NARCISSUS TO MARGERY DAW.

ACCORDING to the story, Narcissus was the son of a nymph and a river god. He was very beautiful, but very vain. Having once beheld his reflection in a clear pool he became in love with himself, and finally died because he could not possess the illusive creature whom he beheld in the water.

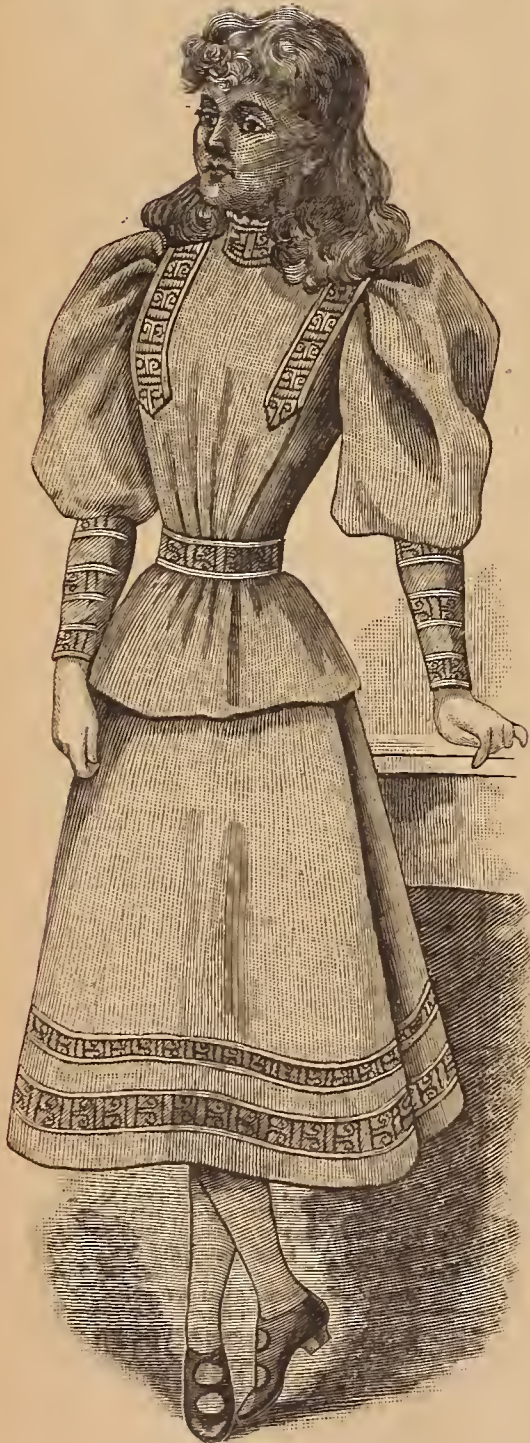
As everyone knows,

"Margery Daw, Margery Daw  
Sold her bed and lay upon straw;  
Sold her bed and lay upon grass  
To buy herself a looking-glass."

From Narcissus to Margery Daw seems a long leap of time, but they have a close relation through the fact that their lives were strongly influenced by mirrors.

Are not most of us first cousins to these celebrated persons?

The destiny of Narciss was not to break a looking-glass (for in his day they were not of brittle glass), but to be broken himself by one. Who would wish to have been a



SCHOOL GOWN.

nymph or god when they knew nothing of the merits of glass over quicksilver!

The first artificial mirror was of some polished metal. In the Bible there are only three references to mirrors. In Exodus xxxviii. 8, there is a very interesting verse which is part of the description of the tabernacle. Speaking of Bezaleel, the architect, it says: "And he made the laver of brass, and the foot of it of brass, of the looking-glasses of the women as-

sembling, which assembled at the door of the tabernacle of the congregation." That word "looking-glasses," which the translator meant to be plain to the minds of modern readers, really makes the passage obscure until we know something of ancient customs. Had they been called "brazen mirrors," it would be better. We must remember that these Hebrew women had learned Egyptian fashions, one of which was the habit of carrying small disks of brass, silver or bronze, highly polished and set in handles of wood or stone. In these little mirrors vanity might have a peep even at the sacred temple. These brazen mirrors were collected from the women as they entered the congregation, and the brass thus obtained was melted and changed into the laver, a sacred vessel of beautifully artistic design. It is not known whether Moses took these mirrors as a rebuke to the fashion of carrying them, or whether it was necessary because the supply of brass was exhausted. In either case it shows a high order of devotion and self-sacrifice on the part of the women.

In Job xxxvii. 18, there is a simile where he speaks of the sky being "spread out as a molten looking-glass." Here, too, the word mirror would be better so far as meaning is concerned, and the sound would not suffer by the change.

When Isaiah prophesied the calamities which would come upon the proud women of his time, he gives a list of their ornamental garments, jewelry and beautifiers, that puts to shame the knowledge of the modern fashion reporter. Among the articles which he tells the women they will be deprived of, he names "the glasses" (iii. 23); which mean, as in the other passages quoted, mirrors of polished metal.

The Greeks and Romans had the same kind of mirrors, and they are not entirely out of use at the present day. What pretty kitchen-girl does not enjoy the sight of her fresh face in the bottom of her polished tin pans! What lady when she consults her gold watch does not occasionally, at the same time, take a peep at her own reflection!

Venice, that wonderful city of glass productions, was the first to make mirrors which were literally looking-glasses. It was in the year 1300. Specimens are to be seen in museums, which prove them to be of rude construction.

We remember always about Queen Elizabeth that when she was old she became so displeased with her mirrors that she ordered them out of her sight. It is to be supposed that she had the latest inventions from Venice, and likely in her fits of temper she broke them into bits. It was not until a generation or more after her death that looking-glasses were made in her country. At present it is an important industry in England. We are accustomed to believe that French plate mirrors are the best. Those of American construction are equally fine, but as they cost less, everybody will not esteem them so highly. Even in the reader's lifetime he can no doubt remember great improvements. Any little home now has mirrors with handsome beveled edges. In an encyclopedia you can read the process of making them. It requires at least eighteen days, sometimes a month.

One of the peculiar customs of certain European cities is the fixing of small mirrors outside the house windows on the upper stories. I think it was in Brussels that we first noticed this feature of architecture. There were long avenues of houses, each with the artful contrivance of little looking-glasses at the up-stairs windows. They are arranged at an angle which allows them to present a reflection of the front doorstep. Ah, no unwelcome caller can find the master or mistress "at home!" No detested dun need be admitted unless he comes with stronger power than his debtor's inclination.

So far as I am informed, no American city has adopted this custom. Are we more frank? Is our honesty more robust? Those little European looking-glasses may be only an innocent convenience, but they arouse our suspicion.

As we have seen, Narcissus lost his life through the instrumentality of his reflection, and Margery Daw was willing to part with the greatest practical comfort of household furniture in order to minister

to her vanity. These instances prove that both sexes are susceptible to the merits and fascinations of the mirror. Babies laugh at their reflected images, little girls and boys are not averse to seeing themselves, with age the habit grows, and few persons live so long as to cease to admire themselves. But, after all, we seldom see ourselves truly, for everyone has a mood, a mental lens, a temperament, which tints the reflection. That happy disposition which sees everything as larger and brighter than truth may be pardoned if even its own physical form it sees reflected through a self-satisfaction tinged with rose color.

KATE KAUFFMAN.

### SCHOOL CLOTHES.

"You are always so busy the last of August?"

"Yes, I find if I do not fix the school clothing then I get all behind."

It is true this part of the summer is very busy. The usual trips disposed of, the fruit, etc., there is a lull before pickletime, and though through September it is often warm, quite warm enough for summer clothes, yet sometimes it disappoints and turns ugly and rainy. I have seen the children trying to finish out some outgrown frocks, sleeves so short and tight as to be very uncomfortable, so I always try to have something ready.

The two gowns we give are adaptable in any kind of wool material, and while stylish, are not too much so for school.

Patterns of all kinds of sleeves and shoulder draperies can be had of any of the pattern stores at very moderate charges. The waists are all so simple, if one has a good lining pattern it is all they want; any outside arrangement can be made to suit one's taste.

A suit of proper underwear should be arranged for the first cool snap.

Umbrella, mackintosh, new rubbers should be as faithfully looked after as the new school-books.

The plain gigot sleeve will remain with us awhile, and nothing is easier to fashion. It takes a good deal of material, but it is all of a piece, and two dresses can be put together, making the sleeves of one and the main dress of the other.

It does seem as if no dressing for years has made the fifteen-year-old girl look so like a beautiful doll as the late summer styles; and the simplicity with which the dress is characterized makes it only more noticeable. Imagine four sisters going out together in white dotted swiss dresses, parasols of the same material, arranged so the cover could be taken off and washed, white chip hats trimmed with crepe de chene. Neither an expensive or conspicuous dress, but they all looked as if it were very expensive.

A sweet girl face is never prettier than when it looks out from a simple sailor hat; you look at the face instead of the hat.

We quietly slip from one style into another, always thinking the last one the best; that's one comfort being a woman—we can change our style of clothing as well as our minds. CHRISTIE IRVING.

### THE PICKLE STORY.

It really happened, this pickle story, because Cousin Alice herself told it to me, and she was there and knew all about it.

Lizzie was the girl who did the work in this family to whom the pickle story happened. Now, when Lizzie arose early in the morning and did all the work, getting the meals, washing the dishes and keeping the kitchen neat and tidy, to say nothing of the washing and ironing, the pickling and the canning for all the folks in this pickle story, we can't blame Lizzie much if, when night came, she looked ruefully at the supper dishes and wished there was some one else to wash them, so that she might go down street awhile with the other girls who had troubles like hers. Well, maybe she ought and maybe she ought not to have done so, but she did, by paying two cents, prevail upon the children of this family to wash the supper dishes. There were five (counting the baby) of these children of the pickle story, but the baby does not strictly belong to the story, because she was too little; but the other four were all old enough to help with the dishes, so for the magnificent sum of two cents they marshalled themselves into the kitchen and undertook the heroic task of "doing the supper dishes."

Now, Cousin Alice, with the baby to take care of, the clothing of these five children to look after and so many other things to do, could not always take an occasional peep into the kitchen to see

how things were progressing, and the consequence was that these youthful dishwashers had things pretty much to their own liking. They were a jolly set, who believed in plenty of fun, and as Cousin Alice was constituted the same way herself, she was not disturbed by the bursts of laughter which often reached her ears from the regions of the kitchen; but on one particular evening the general good time was so much more hilarious than usual that she made her way down there only to find the four young folks of the



SCHOOL GOWN.

pickle story industriously washing the plates and cups.

Now, Cousin Alice understands a thing or two, so she didn't say, "What's all this noise about?" but she kept her eyes open and took a drink of water, then quietly wended her way up-stairs, but not quite satisfied in her mind, because when the shouts from below again grew more noisy than ever she made another tour of inspection, but went away none the wiser. If Cousin Alice didn't find out, somebody else did. I guess it must have been Lizzie. But you will say this is a pickle story without any pickles. Oh, no it isn't, for you may ask the pickle folks themselves and I am sure they will tell you that there were pickles in it.

Well, the next morning when Cousin Alice went down-stairs for breakfast she found the four dish-washers seated very demurely in the sitting-room, while in the dining-room the father concerned in the pickle story called out, "All who had no pickles last night come in to breakfast." (I told you the pickle part was coming.) Cousin Alice was a little puzzled when she found that she was the only one who had not been to pickles, so she went in alone, and it seemed to the folks who had evidently been to pickles that Cousin Alice and her uncle seemed to be enjoying an unusually good breakfast, which, however, came to an end, because the uninvited would-be-breakfasters in the sitting-room heard the table-bell ring and Lizzie enter, and Cousin Alice heard her Uncle say to Lizzie, "Remove everything but the table-cloth."

By and by when Lizzie had obeyed instructions, the father of the children of the pickle story called out, "Now, all who did have pickles last night come out to breakfast." Slowly, and with dejected faces and downcast heads, the four little pickle-eaters filed into the dining-room and seated themselves at the empty table. Then the father, who had disappeared, reappeared very solemnly, bearing a gallon

jar filled mostly with vinegar, with a few stray pickles floating around the top. This jar he proceeded to pass to the dish-washers, who evidently were not strangers to it, with the command to "Take a pickle." Carl, whose spirits were like a cork and could not be put down, declared they were fine, but Mary said she didn't care for pickles, and it was only when her father urged her in a very decided manner that she put her guilty fingers into the crock and withdrew one. The two others took theirs without comment, and all four pickle-eaters ate in silence. A second round of the pickles was inflicted upon them, then they were allowed to depart, and although they did so in silence, I suppose they did some thinking, and no doubt all came to the conclusion that Lizzie's pickles were much better with dish-washing than they were for breakfast.

MARY D. SIBLEY.

**DRESS NOTES.**

There can be no doubt of the general liking for scarlet this season. It is used for linings, for decorations, and in every way possible, and by possible I mean in every way in which it is harmonious. This scarlet is not a dull or a dingy shade; it does not tend in the least toward magenta, but is absolutely pure red, that being the color for which a baby will stretch out, which will enrage a wild bull, and which savages are said to admire. Artists say that this liking for scarlet in its perfect purity is an evidence of a healthful condition of the eyes, and shows a return to what might be called natural artistic taste. Be this as it may, the knot of scarlet on the black hat, the bright scarlet lining in the long coat, the warm-looking coat of scarlet serge, the hat for young people of bright red felt, decorated with red velvet and red feathers, and the evening gown of rich red gros-grain, with a decoration of red velvet and red chiffon, prove most decidedly that not only is red approved by the artists and the dressmakers, but that womankind appreciates it and gives it the place of honor that is its due. So it deserves to have said of it, as did a small girl learning her first French sentences, happy in a red frock, a red cloak and a red hat, "Vive la Rouge!"

A very jaunty jacket that, while fitting the figure just as closely as does the Eton

green velvet, and from it stand up two stiff, black wings. For evening bonnets a great many of black jet with underlinings of yellow velvet are noted, and will, it is likely, prove popular.

Most of us remember when a long, full, black velvet circular was part of a bride's trousseau. In days gone by, silk velvet was invariably used for this, and in many a household mother's circular, after being made into short coats and bonnets, did duty as belts and girdles, rosettes and bows. The long velvet circular is again the fashion, and in Paris it has a special vogue given it. The collar is usually a high one, lined either with fur or feathers, while long, broad satin ribbon ties confine it at the throat. Occasionally elaborate jet trimmings are put down the front of these circulars, but if the material used is rich, the best dressmakers prefer that it should be untrimmed.

Wherever a velvet belt can be worn it is assumed, and if a velvet rosette does not finish it, then a quaint dull gold or silver buckle is worn. The velvet used for these belts is not the ribbon, but the velvet sold by the yard, and which should be bought cut on the bias.

There has been found nothing prettier for an evening cape than the long one of white cloth with the three shoulder-capes overlapping it, each one bordered with a band of brown fur.

Small bonnets of scarlet felt, trimmed with black velvet and black tips, are much liked, and are generally becoming to women who have but little color in their faces.

On the large red felt hat, that belongs by courtesy to the young girl, the Mephisto feathers do not appear; instead, stiff satin or velvet ribbon is wired to take the place of them, and produces the same effect by the weird arrangement. Wise mothers know that feathers soon grow limp when much wear is given them.

The long ribbon sashes reaching to the edge of the gown continue in vogue, not only for evening wear, but for street dresses. Sometimes the ribbons simply start from the shoulders and fall almost to the edge of the gown; again, they are brought front, cross over the corsage, come around under the arms high up to the center of the back, where they are arranged in small bows, while the long ends reach quite to the edge of the skirt. By the by, to be effective, these decorations should always be of velvet ribbon.—*Ladies' Home Journal.*

**RECIPES FOR FRUIT VINEGAR.**

Fine fruit vinegars are among the most highly esteemed condiments on foreign tables, and need only to become better known to be equally popular in this country. While somewhat expensive to purchase, they are by no means difficult to make. The following recipes furnished by a German chemist will doubtless be welcome to many an American house-keeper.

Acetic acid, both in its concentrated and in its diluted forms, possesses the property of dissolving the substances which impart to certain fruits their special taste and fragrance. In most cases the ordinary brandy vinegar is used to extract them from the fruits, but if nice wine vinegar is employed, the fruit vinegar, besides the perfume of the fruit, will also possess that of the wine vinegar. The extraction of the fragrance will be greatly hastened by using very strong vinegar containing a proportion of at least one tenth acetic acid. This vinegar can be easily made by letting wine sour without diluting it with water.

**BANANA VINEGAR.**—Slice the bananas; crush them in a strong porcelain vessel with a wooden spoon, and pour over the mass a sufficient quantity of wine vinegar to cover the fruit to the depth of from three to four inches. Cover the vessel closely and let it stand for ten or twelve hours, then pour the vinegar off carefully and strain through a clean linen cloth or through filtering-paper. Banana vinegar thus prepared is one of the very best of

the fruit vinegars, and gives salads especially a peculiarly pleasant flavor. Banana vinegar should be kept in closely-sealed bottles, from which only the quantity needed for immediate use must be taken, as its delicious fragrance readily escapes.

**LEMON VINEGAR.**—Peel eight or ten fresh lemons and press out their juice; leave the latter to clarify in a tall glass tumbler uncovered, but in a place free from dust. Cut the lemon peel in very small pieces, pour over it six and a half quarts (wine measure) of the best wine vinegar and leave it in a covered china dish three or four days in a moderately warm place (near a warm stove, for instance). At the end of this time strain the vinegar through a damp linen cloth and let it stand undisturbed for two or three days. Then mix the clear vinegar with the clarified lemon-juice, and lastly, strain the lemon vinegar through filtering-paper. This vinegar should be put into tightly-corked bottles and kept in the cellar.

**STRAWBERRY VINEGAR.**—Crush ripe strawberries with a wooden pestle or spoon in a china bowl, and pour the mass into another china dish, which must be set in a moderately warm place and left for the berries to ferment. When the bubbles of carbonic acid stop rising, squeeze the juice firmly with the hands through a damp piece of clean linen, and then strain a second time through filtering-paper. Mix the clear juice with good, strong vinegar in the proportion of one part juice to two parts vinegar, and pour the strawberry vinegar into bottles, which must be tightly corked and kept in the cellar.

**RASPBERRY VINEGAR.**—Raspberry vinegar can be made in exactly the same way as strawberry vinegar, but the fragrance and flavor of the fruit can be still better retained by covering the freshly-gathered fruit with strong vinegar and letting it stand for several days in a moderately warm place, shaking it frequently; then straining the raspberry vinegar through a clean linen cloth, and then through filtering-paper. This fruit vinegar will keep a long time if put into tightly-corked bottles and placed where it is cool.

**ORANGE VINEGAR.**—Strip the yellow peel from eight or ten oranges. Wrap them in a clean linen cloth—a quarter at a time—and squeeze the juice out with the hands into a tall glass tumbler, which should be closely covered and left in a place where it will not be moved. Rub the white lining from the orange peels and mash the latter to a pulp, adding strong wine vinegar. About eight quarts—wine measure—will be needed. At the end of three or four days pour off the wine vinegar carefully—that it may remain clear—add the clarified orange-juice and shake thoroughly, then strain through filtering-paper and pour into bottles, which must be closely corked.

It sometimes happens that the fruit vinegars are not perfectly clear, but seem muddy. In that case they must be artificially clarified, and the best thing to use for this purpose is isinglass.

To clarify fruit vinegars, cut half an ounce of isinglass into very small pieces and pour on a sufficient quantity of lukewarm water to cover completely. Then leave the isinglass to soak, stirring frequently. When thoroughly dissolved; so that no trace of any separate pieces is left, add enough wine vinegar to make half a pound of a thickish glutinous substance, which must be kept closely corked. One third of an ounce of this isinglass mixture will clarify from four to five quarts—wine measure—of fruit vinegar.

**TARRAGON VINEGAR.**—This fine table vinegar is prepared from the tarragon-plant, a species of wormwood, which grows wild in Siberia and southern Europe. To make it, steep two pounds and two ounces of the fresh leaves in from seven to fifteen quarts of very strong vinegar, for three days, then filter the tarragon vinegar and dilute it with ordinary vinegar to suit the taste.—*New York Ledger.*

**HIS ROOM-MATE.**

**S**MALLER than he, fairer, daintier, purer; without his temper or his whims, without his worries, without his fears—and yet so sympathetic that all his pleasures and pains were hers, too—his room-mate, surely, was his better by half.

He was very fond of her—loved her, perhaps, after a fashion, and did a hundred little things to please her (after all, you know, it is the little things that truly please us), and she was pleased with everything he did, just because it was he who

did it. He hardly knew how pleased she was; had he, he would have treated her a little better, I think.

Still she loved him for what he did do, and did not dislike him nor blame him for not doing what he might have done. Her love of him was simple and pure and satisfied.

She pleased him because she was always the same. He knew where to find her; it was the finding of what he looked for in her that delighted him. He looked not for love to find reproaches; he looked not for sympathy to find distance; nor for fellowship to find strangeness. She seemed to



DRESS FOR YOUNG GIRL.

understand him and to know his wants by intuition.

They lived together, he and she, in apartments up town. He was a poor writer himself and could not afford a better place.

Their room was large and sunny; its furnishings were simple and sufficient. On the floor were rugs—she was as fond of rugs as he of books; he had his favorite volume, she her choice carpet or skin—he could afford such things because he loved them. She was a home body and seldom went out; nor did she seem to care to know the people about her. He did not blame her for that, however—they were not very nice people.

He had taken her from a world vastly different from his own. His friends wondered at his fondness for her; some of them were disgusted at the intimacy, for, you see, they did not understand her, nor see her as he did—they knew only that he had "picked her up," as the saying is, on the street.

When he came home from work—he worked in a newspaper office down town—she was always at the door to meet him. She never mistook his step; never listened for others. That first caress at the door she loved so dearly. When he was not worried with business, or was not reading, he would take her in his arms and love her—as she loved most to be loved. They were a very happy pair of room-mates. He used to say to her: "I wonder how long we can live thus together. We are so happy."

One day he came home, and coming in did not mind her offered caresses; did not take her in his arms; did not call her his "old sweetheart," but changed his dress and went away hastily, leaving her with hardly a word. And again he did it, and again. She did not know why. She was miserable.

And then he went away and stayed days and days—a week nearly. She lived partially with the family below. They saw that she was alone and took compassion on her; but it was a compassion that brought no peace. When he did come home she bounded to the stairs to meet him; but there was some one with him—a woman; and he had his arm about her. His "old sweetheart" drew back. Who was this new one coming into her realm? What could it mean? She crept back in the shadow of a heavy curtain and watched them. They sat down in the great arm-chair—he with his arms about her. The sun came in—a flood of gold—and fell on the red rug before them. Out of the window they could see the tops of many houses below them.

"To have you here, where I have worked and lived, and to know that you are soon to be mine, mine, dearest, fills me with a joy undreamed before," and he drew her close into his arms and kissed her again and again.

"His old sweetheart" stole out from the shadow of the curtain and came and stood before him and looked up into his face. There was no reproach in the look, no blame, only wonder. Then she bounded lightly into the lap of the woman who sat beside him, and rubbed her soft, furry head against her hand—purring the while.

—*Jerome C. Bull, in Vogue.*

The biggest cash commissions ever given by any paper are now given to club raisers for this paper. Write at once for "Special Cash Terms to Club Raisers."



STYLISH SLEEVES.

one, is yet a little longer, is known as the "Patrol." It has each seam braided and a high, rolling collar, while the fronts of it, fastening with "frogs," allow just an edge of a silk shirt to be visible.

A felt hat that has the stamp of a famous milliner upon it is of black felt after what is known as the "boat shape;" that is, low, with a curling brim and rather pointed in front, where there is a knot of emerald-

green velvet, and from it stand up two stiff, black wings. For evening bonnets a great many of black jet with underlinings of yellow velvet are noted, and will, it is likely, prove popular.

## Our Household.

### UNCLE SIDNEY'S VIEWS.

I hold that the true age of wisdom is when  
We are boys and girls, and not women and  
men;

When, as credulous children, we know things  
because

We believe them—however averse to the laws.  
It is faith then, not science and reason. I say,  
That is genuine wisdom—and would that, to-  
day,

We, as then, were as wise, and ineffably blest  
As to live, love and die and trust God for the  
rest!

So I simply deny the old notion, you know,  
That the wiser we get as the older we grow,  
For in youth, all we know we are certain of;  
now

The greater our knowledge the more we allow  
For skeptical margin; and hence I regret  
That the world isn't flat, and the sun doesn't  
set,

And we may not go creeping up home, when  
we die,

Through the moon, like a round, yellow hole  
in the sky.

—James Whitcomb Riley.

### HOME TOPICS.

**W**HILE August may not be the hottest month of the summer, yet it is during this month that the heat seems most oppressive. The weather is sultry; the life seems to have been burned out of the air; food supplies sour and mold quickly, and flies seem more troublesome than at any other time of year. The utmost care and vigilance is necessary to prevent waste and secure comfort. The appetite is apt to need a little coaxing at this season, and cooling effects are to be sought. Fresh vegetables, fruits, salads and cold desserts are generally more acceptable than hot soups and meats. If soup is served, let it be a light, clear soup.

**SALAD.**—It is a standing joke at our house that whatever is left from dinner and breakfast I put into a salad for lunch. This is not very far from the truth, either. For instance, I may have three or four potatoes and a few spoonfuls of string beans left from dinner, a slice of boiled ham or two or three little crisp slices of fried bacon from breakfast, these, cut fine, with one or two tomatoes, a small onion minced very fine and a salad dressing poured over just before serving, makes a salad for one day. Another day it may be potatoes and beets from dinner, one or two eggs from breakfast, a little onion and a small head of lettuce fills out the salad. If I have a little cold chicken, veal or fish, it goes into a salad, and all are pronounced good.

**SALAD DRESSING.**—Instead of a mayonnaise, which must be made fresh every time, I make a cooked dressing that will keep a week in a cool place. Put a teaspoonful of good vinegar and a half teacupful of water in a double boiler, with a tablespoonful of butter. When this boils, stir into it a teaspoonful each of mustard, salt and sugar and a heaping teaspoonful of corn-starch, all mixed and wet with a little cold water. Stir the mixture till it thickens, then pour it slowly over the beaten yolks of two eggs, beating it all the time, and lastly, add a half teacupful of sweet cream, pouring it in slowly and stirring the mixture at the same time.

**MANIOC.**—A friend lately brought to my notice a preparation of the cassava-plant, called manioc, which is the Spanish name for cassava. It is similar to tapioca, but with a more delicate flavor, and cooks in much less time. It comes in packages the size of corn-starch, and directions accompany each package; but the skilful cook will soon devise a great many more ways of preparing it. Three heaping tablespoonfuls of manioc put into a quart of cold water, with a half teaspoonful of salt, in a double boiler, and cooked until it thickens and looks clear, then poured into a mold and served cold with sugar and cream, is the simplest preparation. A spoonful of jelly on each dish, as it is served, is an addition. The plain boiled manioc poured over berries or sliced peaches and allowed to cool and then served with cream and sugar makes a delicious pudding. Or it may be poured over pared and cored apples and baked, covered, until the apples are done, and it will make a nice pudding to be served either cold or warm.

**BUILDING A HOUSE.**—When one contemplates building a house it no doubt pays well to have correct plans before beginning. Alterations after one commences to build are not only more costly, but liable to make trouble between the contractor

and owner. A full set of plans and details will enable one to make the most advantageous contract with the builder, and know not only how the house will look, but just what it will cost before it was commenced. The FARM AND FIRESIDE offers as a premium a valuable catalogue of artistic dwellings from which almost any one can select a plan to suit their needs. This book also contains plans for barns, grain-houses, poultry-houses and other farm buildings. MAIDA McL.

### MAKE HOME BEAUTIFUL.

Home-made furniture, as a rule, proclaims itself as such; and although we often read of an elegant dressing-case evolved from a dry-goods box, or a luxurious chair which had originally served as a flour-barrel, these works of art, when completed, albeit in accordance with the minute directions prescribed, are wont to prove disappointing. The average woman is not distinguished for mechanical ability. In fact, there is only here and there a woman who can drive a nail—that is, a nail that shall accomplish the purpose whereunto it was sent. This being the case, it is generally more satisfactory, both artistically and financially considered, to intrust one's furniture projects to a painstaking carpenter.

An attractive bit of furniture that one has planned oneself possesses an especial charm. It may be only a simple wall-cabinet to hold one's choicest bric-a-brac, but who so well as the owner can plan the position and space to be given to each piece? In many homes there are disabled articles of furniture—an awkward bedstead, possibly, that has outlived its usefulness, and is valued now only for association's sake. Generally these old pieces are of excellent material, and it has come to be quite the thing to make them over into articles which shall be both useful and ornamental in the modern home. From such a bedstead as the one described was recently developed a quaint and charming corner cupboard. The doors are of heavy beveled glass, through which one has a view of sparkling crystal, gleaming silver and delicate china. One shelf covered with dark velvet is devoted wholly to the cut glass; in another compartment the cups and saucers are arranged, the saucers standing in a groove at the back, while the cups are suspended by small, brass hooks just above them. In another home is an antique clock of deepest red teak-wood. Although a handsome and valuable timepiece, there really seemed to be no suitable place for it until, through the inspiration of the mistress of the home, an ornamental bracket-shelf was devised for it. The maple-wood employed was stained and polished in imitation of the teak-wood, and so cleverly was the work accomplished that the whole appears as one unique piece of furniture.

### WHAT DEFT FINGERS DID.

Although it is beyond the ability of most women to accomplish work of this character, any one who is possessed of taste and a moderate knowledge of drawing may plan out an elegant little cabinet, cupboard, shelf or table, which may be developed by a careful workman; and which shall have that very desirable merit—that of being totally unlike the furniture possessed by one's neighbors.

Occasionally, however, one finds a woman who has the ability not only to plan, but to execute. A novel picture-frame recently completed may serve as a model to other clever women. The subject of the picture was a marine in water-color. The foundation of the frame consisted of a three-inch strip of wood, through the center of which was a shallow groove about an inch in width. The strip on either side of the groove was then gilded, and the groove itself filled with a compact row of small scallop shells of uniform size, which were fastened securely to the board by means of strong glue. When completed, the spaces left bare by the curves of the shells were gilded. Resting upon a rustic easel, draped with a genuine fisherman's net, the pretty picture with its unique frame was very charming—a great improvement, surely, over the conglomerate pine-cone and spice productions of our ancestors.

"You, see," explained the fair artisan, whose skilful fingers had fashioned the pretty frame, "I wanted something appropriate and inexpensive. It cost me scarcely anything beyond the time I gave to it, and I haven't a frame in the house which is so much admired as this simple thing of my own contriving."

Among the new and inexpensive fabrics for household decoration is a soft, pretty flowered material which is neither silk-

oline, Madras nor figured cheese-cloth, although it seems to combine the qualities of all three. It comes in graceful patterns and attractive colors, which are printed from designs furnished by the society of associated artists. The goods bear testimony of this fact in the mark "A. A.," which is every little way introduced into the design. This material is to be had in great variety of design and coloring, and may be effectively used in sash curtains at a chamber window or upon a simple book-case. A pretty bedspread for a summer room is of this same material, and has sprays of pale blown and olives upon a cream-colored ground. The breadths are neatly overhanded together, and the whole bordered with a two-and-a-half-inch ruffle. The spread is made long enough to extend over the pillows and hang down in a deep valance at the sides of the bed. Fancy bed-coverings are increasing rather than diminishing in favor, despite the effort which has so often been made to return to the white bed dressing.

### MANY PRETTY BEDCOVERINGS.

There are, and probably always will be, many who prefer the all-white bed, and for these many pretty bedcoverings are provided. Liven shams with borders of elaborate drawn-work are used with plain white Marseilles spreads. Antique lace of firm, fine texture is always suitable and makes a dressy bed, used either over white or some delicate color. The figured China and India silks used during the last year or two are also still in favor for bed and bolster coverings, but a new material for this purpose is the hollywood sheeting, a fancy double-width material of soft, cream-white cotton, whose rough surface is exceedingly effective when wrought with the simple, showy patterns employed for this work. A very handsome one designed for a white and gold guest-chamber has a conventional pattern scattered over it, worked in shades of yellow and brown. The pattern is first outlined with a long chain-stitch, the leaves and shadings marked, then the intervening spaces filled with a simple filling-stitch, which is very rapidly done, and is yet exceedingly showy. The spread extends over the pillows, and a band of colored ribbon matching one of the lightest shades of silk is passed across the bed just below the pillows, and tied in a handsome bow. Less expensive than the hollywood is the bolton sheeting. This also makes very pretty spreads when embroidered with rope silk in showy conventional designs. So much for externals, and now for the bedding proper. The word "comfortable" is often a misnomer, for the stuffy, cumbersome coverings sold under that name are about as oppressive as a feather bed. If, however, they are filled with a light layer of batting, and very closely tacked and covered with the dainty flowered muslin which comes for this purpose, they may be made very attractive and comparatively comfortable.

For real comfort and service the blanket is the most desirable of all coverings, and if one understands how to care for her blankets and how to wash them properly, an expensive blanket is more economical in the end than the perishable comfortable. A facing of fine cheese-cloth a quarter of a yard in depth across the upper edge of a blanket serves to protect it from soiling, and this may be replaced several times before a new blanket will need washing. All bedcoverings should be well aired frequently. Choose a bright, windy day, and hang them out of doors for an hour or so. It is well to whip blankets lightly with a rattan dusting-stick. If treated in this manner, they will not require frequent washing. When it does become necessary to wash them, rip off the cheese-cloth protectors, whip out the dust, and if bound with colored braid, remove it and replace with white. Then make a very strong suds with warm, soft water and pearlina; add two tablespoonfuls of ammonia, and when the pearlina has dissolved put in the blankets. Let them soak only a few moments, then rub lightly on the board, wring out and rinse in fresh, warm water, to which a little ammonia has been added. Wring very dry, shake and stretch into shape, then hang out of doors in the sun and wind to dry. If the foregoing directions are carefully followed, one's blankets may be kept soft, white and downy. Impure soap and careless washing, on the other hand, will ruin the handsomest blankets. In airing pillows choose a clear, bright day, but never hang them where the sun will strike them, as the sun acts upon the oil in the feathers and develops a most disagreeable odor.—Chicago Herald.

### TIMELY RECIPES.

During the hot season the appetite needs something to tempt it, and there is a time between the seasons, when the first small fruits are gone and before the next ones come, that it is very hard to know just what to provide.

For supper a very appetizing dish is stuffed eggs. The following recipe, which we take from the *Delineator*, will be found very reliable:

Boil your eggs very hard, remove the shells, cut the eggs in two crosswise and slice off a piece of the end so they will stand alone; remove the yolks and mix with them a little chopped ham and fill the cavities in the whites with this mixture, heaping it on cone fashion. Arrange the cones in a flat dish and pour the following mixture about them: Beat the yolks of two eggs very light, stir into them a half teaspoonful of salt and the same of mustard, then add slowly twelve spoonfuls of salad-oil, and as it thickens, thin it with vinegar, using two tablespoonfuls.

Another is egg salad. Boil six eggs hard, remove the shells and separate the yolks and whites, chop each separately and season the yolks only with salt and pepper, place them in a square dish and pile the chopped white diagonally across each way. It is a very pretty dish.

**VEAL LOAF.**—When I go visiting I always try to learn something new, and my best friend had this for her birthday party supper. Get a good-sized piece of veal, cook till tender, then remove from the liquor and chop finely, season with salt, pepper and a little chopped parsley; mix the liquor with the meat. Line a dish with hard-boiled eggs cut in rings, put the meat in and pack it down; set on the ice or in a cool cellar to harden. It can be turned out on a platter and sliced. It is best made the day before you wish it, to allow it to have time to stiffen.

**SALMON SALAD.**—Open a can of salmon and fill it up with vinegar; let it set two hours then pour off all the liquid; to this add one egg well beaten, a half teaspoonful of sugar, put on the fire and let it just heat up well. Arrange the salmon on a platter and pour enough of this liquid dressing over it to make it look well, and put the rest in a gravy-boat to serve it with. It is nice, too, laid in lettuce leaves and served with the dressing. L. L. C.

### BITS OF KNOWLEDGE.

**FLOWERS.**—If you have any salsify or vegetable oyster roots set out a few among your flowers, for the numerous blossoms, says the *Housekeeper*, are lovely, full two inches in diameter, and of a deep violet, purple.

**BOOKS.**—It is a fact worth knowing that books with white and very delicate bindings are cleaned in the book-stores by rubbing the covers with a chamois-skin dipped in powdered pumice stone. This scouring makes them look like new.

**LOCKJAW.**—Several cases of lockjaw have recently been reported as following the application of spider's web to stay the bleeding of wounds. According to Dr. Wilson, this event is readily explicable since the germ of lockjaw resides in the earth and is just as liable to mingle with the dust which settles on the webs. Hence, "conveyed into the wound in this way, the germs work their due effect." Cobwebs are also found to be the resort of colonies of bacteria. Recent microscopic examinations establish this point beyond all doubt. "Colonies of bacteria," says a government report, "may be detected in the webs which, like delicate screens or filters, absorb anything and everything which floats through the air and settles upon them."

**BLACK LACE.**—To renovate black lace, dissolve some ox-gall in warm water and wash the lace lightly in this; then rinse in thoroughly cold water and pass it through a thin solution of gum arabic, clapping it between the hands to get out as much of the moisture as you can; then pin it out evenly to dry. Another way is to dip the lace in porter or beer (the first is best); press out a little of the moisture, then wind the lace smoothly around a bottle, carefully picking out the edges; cover it up out of the dust till dry. It should, when dry, look like new. Veils, or any black net, dipped in porter, folded quite smooth, pressed as dry as possible in a clean cloth, and hung for two or three minutes before the fire, become stiff and fresh without any ironing. Use no soap.

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THE STORY OF HERCULES AS TOM TOLD IT.

ONCE there was a giant, Antæus, an' he lay on the ground takin' a nap, an' his little brothers, the pygmies, no bigger'n robins, kept runnin' over him an' hop pin' into his mouth, an' takin' races 'round one eye. An' when they saw Hercules comin' a mile or two off, they said to Antæus:

"Wake up, lazy-bones! Here comes a giant as big as you are!"

An' Antæus waked up an' shook himself, an' took up the pine-tree he used for a club an' swung it over his head.

"Where are you going?" he says to Hercules.

"I'm goin' to the islands of Hesperides. I'm goin' for the golden apples," says Hercules.

"Well, you won't go any further," says Antæus.

"Well, I'm not goin' back," says Hercules.

"I'm goin' to have that lion skin on your shoulder to make gloves of," says Antæus. "Come an' get it," says Hercules. An' Hercules had an oak-tree for a club.

So they took to fightin', an' Antæus gave Hercules a terrible blow on the side of the head, but Hercules dodged it, so Antæus hit his mother—that was the earth.

Then Hercules took his oak-tree an' smashed that pine walkin'-stick all to pieces, an' he hit Antæus a blow on the side o' the head that made him howl an' yell, an' he knocked Antæus down several times, but every time Antæus touched the earth, his mother, he was ten times stronger than before. So Hercules didn't know what to do.

Then he took Antæus 'round the waist an' held him up high in the air. An' Antæus couldn't live five minutes without touchin' the earth, so he died, an' Hercules chucked him over a sand hill, an' you might take his bones now for an elephant.

Then Hercules he stretched himself out to take a nap, an' all those little pygmies began to cry an' howl for their big brother, an' they gathered two bushels of grass an' put it under Hercules' head an' set it on fire. An' when Hercules understood about it he was sorry, an' he said he wouldn't hurt one of those little fellers for anythin', an' when he went away he set down first one foot an' then the other very careful, for fear he should step on one of 'em and kill 'em.

As Hercules was goin' on, he met some maidens, an' they fired roses at him, an' twined 'em about his club, an' asked him to stop an' eat some grapes with 'em. An' Hercules sat down and ate some grapes. Then he was so mad to think he had fooled away so much time with those maidens that he went on smashing all the trees on his way, an' he splintered his oak club all to pieces.

Then he found the old man of the sea, an' the old man turned into a fish; but Hercules put his arm 'round his neck an' took hold of his tail an' squeezed him so tight he was glad to turn back into an old man again.

Then Hercules saw a golden cup three or four miles wide come floating over the sea, an' Hercules got into it an' sailed away for the islands of Hesperides.

Then he saw Atlas, with great forests growin' between his toes an' holdin' up the sky on his back.

"Hello, down there in that little cup!" hollered Atlas.

"Hello!" bellered Hercules.

An' Atlas agreed to go to the Hesperides for the golden apples if Hercules would give him a rest for awhile an' hold up the sky. So Hercules climbed up on the highest mountain he could find an' held up the sky. An' when Atlas came to the tree it was all surrounded by dragons, an' Atlas said those dragons was cunnin' as little kittens, an' it was worth five dollars to look at 'em. An' when Atlas came back with three golden apples as big as pumpkins, Hercules says:

"I wish you would take this sky off from my back."

"I'm takin' a rest," says Atlas. "You've got to hold it for two or three centuries yet."

"Well, if I've got to hold it that long I'm goin' to get mighty tired," says Hercules. "Can't you take it for five minutes till I make a padding of this lion's skin to make it more comfortable for my back?"

"That wouldn't be any more'n fair," says Atlas.

But just as soon as Hercules got the sky

off from his back he picked up the golden apples an' skipped with them. An' he carried 'em to the king, but they wasn't good for anythin' after all. They was solid gold, an' you couldn't eat 'em.

An' afterwards Hercules died, an' teacher says you can see him an' his club any night up in the heavens.

An' that's all, an' I should think it was enough. LEON WATROUS.

GLEANINGS FOR HOUSEKEEPERS AND HOME-MAKERS.

Samantha Allen evidently thinks that "the way to a man's heart is through his stomach," for she says: "By stiddy keepin' of my table set out with good vittles from day to day and year to year, the golden cord of affection has bound Josiah to me by ties that can't never be broken into. He worships me, and the better vittles I get the more he thinks on me. He loves me a good deal better some days than he does others, and these are the ones that I cook up sights and sights of good food, and with a cheerful countenance and clean apron, set it before him in a bright room, on a snowy table-cloth. Great—great is the mystery of men's love."

If we could see as Emerson saw, we would have no need to complain of the dreariness of country life. He knew how to see and how to live. He says: "The succession of native plants, in the pastures and roadsides, which makes the silent clock by which time tells the summer hours, will make even the divisions of day sensible to a keen observer." He knew so much; he thought so much. Did you



WORN-OUT WORLD'S-FAIR TRAVELERS.

ever think or see, until he told you, that "Every appearance in nature corresponds to some state of the mind?" That an enraged man is a lion, a firm man is a rock; a lamb is innocence, a snake is spite; flowers express to us the delicate affections; light and darkness are our expressions for knowledge and ignorance?

Sometimes when we are oppressed by household cares; when we realize that we are letting ourselves live in such a little world, binding our minds in such a narrow channel; when dish-washing and bed-making and cooking begin to hold our minds as well as our hands; when these things pall and we begin to feel the discontent, then isn't it a blessed relief to throw it all aside and live for a few minutes in that other world, which is just as near to us as the one in which we have been existing? Literally, a step will take you into it, for it is but from your kitchen table to your kitchen door. We are not so devoid of reason as not to know that an existence in nature alone would not only be unwholesome, but also the utmost folly. And while we heartily believe that there is beauty in our homely work and daily tasks, yet we say with a heart full of gratitude, "Blessed be the memory of such a man as Ralph Waldo Emerson, the man who saw for himself and taught others to see what beauty there is in our daily surroundings." M. D. S.

WOMEN TALK TOO MUCH.

Very lovely and very lovable is the sister who has cultivated a disposition angelic enough to see the good and not the evil side of human nature, who can be severe with her own failing while she excuses the faults of others. We are told that she is a dull, uninteresting creature, and we find, if we take the trouble to look into the matter, that this woman refuses to laugh at her neighbor's pet weakness, does not enjoy hitting out right and left at the world at large, and is always ready with a plea for unseen and unsuspected reasons which, if they could be revealed, would go a long way toward modifying harsh judgment.

My lovable woman may not be witty. She may indeed be a trifle prosy, but she it is to whom we go when down in the

depths, and in perfect confidence confide the heart trouble that is shadowing existence and handicapping us in the race of life, feeling an assurance that our precious secret will not be torn to shreds as soon as our back is turned.

We chatter too much. Women have an idea that this is being entertaining. In the hope of keeping up our reputation for brightness we say outright, or slyly insinuate things against this friend and that, which, if known, would give us an enemy for life.

Be more tolerant. Have patience with personal oddities and seemingly inconsistent actions. How can you know all the difficulties to be encountered and overcome by the people whom you criticize? Yes, we talk too much.—Dorothy Maddox.

DO TALL OR SHORT MEN MAKE THE BETTER HUSBANDS?

Have you ever noticed that tall men make much better husbands than short men? It seems absurd to lay down any hard and fast rule like this, but a little observation and inquiry will convince you that I am right.

Just consider now, and think over the many unhappy marriages which must have come under your notice. In how many cases—where the woman was clearly not to blame—was the husband a tall man? In very few cases indeed, I venture to say. The domestic tyrant is nearly always a small man—in stature as well as in mind. Perhaps it is that his diminutiveness prevents his bullying out of doors, and he is obliged to expend the stored-up combativeness of the day on his unoffending home circle in the evening.

Moreover, the tall man is nearly always good-humored. He may not be so shrewd as the undersized man, but he has a far better temper. Now, in the domestic circle, the virtue most required is good temper. Dignity, strength of will, decision, obstinacy—these are all useful in our business relations, but in our own homes it is best to place them on the shelf. Good humor and unselfishness are the qualities most wanted in married life; and these, it will be admitted, are possessed by the tall man in a far greater degree than by the little man.

On this subject another writer says: An ounce of fact is worth a ton of theory on this and on every other question. Now, I am a district visitor in a very poor neighborhood, and I can declare unhesitatingly, from a wide experience, that among the poor, at any rate, the bad husband is nearly always a tall, hulking ruffian. The reason may possibly be that the little man is afraid of his better half, but I do not think this is so as a rule. However, the fact remains that the little man makes a better husband than the man of inches. Big men are generally small-minded. This is notorious. And nothing pleases a small-minded man so much as to act the petty tyrant in his domestic circle.

Again, big men are far less faithful to their wives, as a general rule, than men of smaller stature. A man possessing what he terms "a good presence" is fond of courting the admiration of the other sex, even after marriage. This results in quarrels, trouble, discontent, unhappiness and often the breaking up of homes.

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After the Honeymoon. Their honeymoon was over, The timothy and clover In all the summer fields was turning brown. 'Twas morning, she sat sighing; Bedewed with dismal crying She puckered up her forehead in a frown. Floors sadly needed scrubbing, Black kettles needed rubbing, Her castles in the air had toppled down. When lo! a great magician transformed this sad condition, For Gold Dust Washing Powder's wide renown Induced this bride to buy it—as soon as she could try it No happier home existed in the town. Gold Dust Washing Powder Sold everywhere. Cleans everything. Pleases everybody. Made only by N. K. FAIRBANK & CO., Chicago, St. Louis, New York, Philadelphia, Boston, and Montreal.

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## Our Sunday Afternoon.

### BECAUSE.

In the likeness of His death  
We were planted,  
Therefore, by His spirit's breath  
Resurrection life is granted—  
Resurrection beauty glowing,  
Resurrection power outflowing,  
Resurrection gladness cheering,  
Resurrection glory rearing.

### THE BIBLE.

Hast thou ever heard  
Of such a book? The author, God himself;  
The subject, God and man, salvation, life,  
And death—eternal life, eternal death—  
Dread words! whose meaning has no end, no  
bounds.  
Most wondrous book! bright candle of the  
Lord!  
Star of eternity! the only star  
By which the bark of man could navigate  
The sea of life and gain the coast of bliss  
Securely! Only star which rose on time,  
And on its dark and troubled billows still,  
As generation, drifting swiftly by,  
Succeeded generation, threw a ray  
Of heaven's own light, and to the hills of God,  
The eternal hills, pointed the sinner's eye.  
—Robert Pollok.

### GET IN SOMEWHERE.

**F**IND your place in some Christian church as soon as possible. Do not delay, but go at once to some godly minister and tell him that you are on the Lord's side and want to get into rank with his people. I once heard of a little child who had recently been converted. She was one day talking to her grandfather, who was questioning her about her new faith, and no doubt giving her some good advice.

Finally she said, "Grandpa, are you a Christian?"

"Yes, my dear, I hope I am."

"What church do you belong to, grandpa?"

"Oh, I belong to the church of Christ."

"But what is that? Are you a member of the same church that mama and I are—the Episcopal church?"

"No, my dear, I am not an Episcopalian."

"Are you a Presbyterian, then?"

"No, I am not a Presbyterian."

"Are you a Baptist, then?"

"No."

"Are you a Methodist?"

"No, dear, I do not belong to any of the churches; I just belong to Christ."

After a pause, in which the little one was thinking it over, she turned her face up to her grandfather's and said, "Well, grandpa, if I were you I would try and get in somewhere."

Now, I think the little Christian was right and the old one was wrong. I know there are many who for various reasons stand apart from organized relation to the church of God. No church is perfect. No doubt we might all find things in the churches to which we are allied, which we could wish might be changed, and certainly we see things in other bodies which we do not approve; but at the same time I would say that it is better to be in than out. Imperfect as the outward church is, nevertheless it is the church of God, and among its members are to be found the true people of God, and within her organization are found the ordinances of God. I repeat the little girl's advice, "Get in somewhere."—*Dr. Pentecost.*

### THE SCOTCHMAN'S FAITH.

I took tea one evening with a godly old Scotchman who had been raised on the Shetland islands, on the north of Scotland, where he earned his livelihood by fishing. He gave me a most interesting account of several dangerous fishing excursions he had made. I was charmed with the simple style of the old man in these narrations, but much more with the beautiful faith by which he seems to have been sustained.

Said he, "I was happy and contented even when the storm was raging and every probability of deliverance had gone. I always felt that God could do what he pleased with me, and I knew what he pleased would be right."

Blessed faith! It brings to us a living savior, whose voice can still our hearts into the calm of unflinching trust, and whose hand can guide our vessels in safety through every tempest.

"But," added the old man, "I did not lie down and leave the boat to the waves, or even to the care of God. I did trust in God, but knew that at the same time I must employ all the skill and power God had given me, so I rowed and prayed and

struggled, and God gave me every time a safe harbor."

The old saint's faith was only equaled by his common sense. Such sense in a saint is a blessed possession, for it gives force to his faith and makes his doctrines practical.

### MUSIC AT THE FIRESIDE.

Every family should have its melodian or piano, and every day gather about it and listen to its harmonies. The child that has "no ear for music" will develop one, and the child that has an aptitude for music will have that aptitude strengthened. Children who sing together every day will have a bond of enjoyment that will prevent many a jar, many a dissonance, in their intercourse with each other.

A lady now so immersed in domestic care that she cannot "keep up her practice," yet plays and sings beautifully, "but," she says, "only the songs and pieces I learned in my girlhood. I cannot forget them, and the longer I sit at the piano, the more they come back to me. When the children are fretful I play for them, and they have their favorites among the great composers, Mendelssohn, Mozart, Beethoven, Handel and Hayden." Fortunate children, to be thus made acquainted in the nursery with the crowned kings of song!

But if one can play only psalm tunes and the simplest airs, better this than nothing. Music at home will prepare for music abroad, and be a stepping-stone to higher things.—*Christian Advocate.*

### DR. O. W. HOLMES ON HEART-LOVE.

I never saw a garment too fine for a man or maid; there never was a chair too good for a cobbler or a cooper or a king to sit in; never a house too fine to shelter the human head. These elements about us—the glorious sun, the imperial moon—are not too good for the human race. Elegance fits man; but do we not value these tools a little more than they are worth, and sometimes mortgage a house for the mahogany we bring into it? I would rather eat my dinner off the head of a barrel, or dress after the fashion of John the Baptist in the wilderness, or sit on a block all my life, than consume all on myself before I got a home, and take so much pains with the outside when the inside was as hollow as an empty nut. Beauty is a great thing, but beauty of garment, house and furniture are tawdry ornaments compared with domestic love. All the elegance in the world will not make a home; and I would give more for a spoonful of real heart-love than for whole ship-loads of furniture and all the gorgeousness all the upholsterers in the world can gather.

### MORE EGYPTIAN ANTIQUITIES.

Dr. Flinders Petrie's latest excavations in Egypt have resulted in finding many valuable antiquities. Last season Dr. Petrie explored the "City of Khuenaten," a new city which that Pharaoh built for himself, now known as Tel le Amarna. The strange and interesting results of the explorations show that Khuenaten had introduced many novelties into Egypt in addition to that of a new religion. Among these it is found that he had brought in a new style of art, not only in sculpture, but in painting and decorative art as well. 1400 B. C. is the date given to these relics by Dr. Petrie (that is over 3,000 years ago), and most of the colors appear as sound as when first laid on; the touches with the brush are yet clear and distinct. The question as to how this new style of art reached the Nile valley will, no doubt, attract the consideration of Egyptologists. Dr. Petrie thinks it was entirely due to the personality of Khuenaten himself, for the art, as well as the worship, was all swept away by the Pharaohs that followed him.

### CHRIST THE MODEL.

In the great galleries of art that are the glory of London, Paris and Rome, you may see the artists of the future. Young men toil there day after day, patiently reproducing copies of the masterpieces of the painters who are world-renowned. Every line, every color; every graduation of light and shade, they put forth their utmost skill to imitate. They are not content that their picture should be something like the original. Their ambition is to make their copy so exact that none but an experienced eye shall be able to tell which is the original and which is the copy. Thus place yourself before Christ. Look at his character, so perfect, so majestic, so tender and determined, that henceforth the great business of your life shall be to become like Christ.—*Children's Friend.*

### WHEN THE BIBLE WILL BE NO LONGER NEEDED.

One dark night I was returning home from the country, when my way led through the unlighted village streets, then by a little gate into a narrow path that ran through twenty-four fields connected with each other by little gates or stiles, and then along a narrow lane with high, bushy hedge rows on either hand, to the town itself. My lantern showed me first, the entrance to the path, then the path itself, with its park-like fields, its thick, bordering woods, where the great trees flashed up into the night, and the quaint stiles, and little swing-gates overhung with autumn-tinted foliage, revealed themselves one by one to my view, till the last stile brought me into the sheltered lane, and then the path ended at the lighted streets of the town. It is in this pleasant way that the Holy Scriptures show us first, the entrance to the path of life, then the path itself, and at length, the end of the way, where the lamp is no longer needed, and we are at home.

### GOOD COUNSEL.

Look within. Keep the internal fires burning. Build the home altars. Add to the time in the closet. Heat and efficiency do not so much depend upon externals as internals. It is well to have combined effort; it is well to have bands and straps cut; but it is of vast importance to have the inward life aglow with personal contact with the unseen and eternal. Perhaps their is over-much looking at outside measures, and too little attention to the internal fires that feed the outward movement. Build up the home altar. Drill in patient Bible study. Study, not only the external movings of holiness, but the life of it in thy soul. Learn, if possible, all that hurts thy soul. Learn, so far as possible, the kind of a climate that best suits its life. Seek continually the richer spiritual pasturage which best feeds thy soul's wants. If thou wouldst be of the highest service to the external conquest of holiness, look within.—*Highway Almanac.*

### THE SIN OF ENVY.

In apostolic times, envy was classed as a sin; but in our times it seems to be treated, in some quarters, as a right motive to action. Open appeals are made to envious feelings, in order to array the poor against the rich, for instance, or against some particular clan of the rich. This "enmity bred of covetousness," as it has been defined, is a source of double evil. It blights the inward life of the man who cherishes it, taking away from him the right value of the things he has, and poisoning his mind with hatred of others. And it rends society into classes and factions in a way that justifies the apostle's words, which make envy the source of confusion and of every evil work.

### MORE NICE THAN WISE.

I never knew a good horse that had not some odd habit or other, and I never saw a minister worth his salt who had not some crotchet, or oddity. Now, these are bits of cheese that cavilers smell out and nibble at; the first is too flowery and the second is too dull. Dear me, if all God's creatures were judged in this way we should ring the dove's neck for being too tame, and shoot the robin for eating spiders, kill the cows for swinging their tails, and the hens for not giving milk. When a man wants to beat a dog he can soon find a stick, and at this rate, any fool may have something to say against the best minister in England.—*C. H. Spurgeon.*

### PRACTICAL POINTS.

The truth we hate the most is the truth that hits us the hardest.

Some of the heart's sweetest songs have been learned in the dark.

The religion of Christ is the only one whose corner-stone is love.

How easy it is for men to find reasons for doing as they want to.

When faith goes to church to pray for rains it always takes an umbrella.

As soon as Christ has a place in the heart the life begins to bear good fruit.

The devil's mud cannot be made to stick to a man whose face is toward God.—*Ram's Horn.*

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## Farm Cleanings.

### LEGISLATION AGAINST THE USE OF SUBSTANCES INJURIOUS TO HEALTH.

[An extract of the forthcoming annual report of the Ohio Dairy and Food Commissioner.]

HERE are many good citizens, in favor of pure food legislation, who believe that laws should prohibit only the use of substances as adulterants that are injurious to health or destructive to life. If the health and lives of consumers of food and drug products can be protected in this way, then the advocates of this theory might have more weight. The use of active and destructive poisons in food products would be interdicted by any one. Yet, in the sale of food and drugs we have allowed to prevail a system so lax that undoubtedly much suffering and many deaths have resulted therefrom.

The legislature has rightfully provided that no citizen shall open a drug-store and dispense medicines unless he is, or has in his employ, an educated pharmacist, with a diploma from college or a certificate from the state board of pharmacy. After having thus equipped himself he dare not sell the most common drug that is classed in the list of poisons without labeling it in red letters of conspicuous size, with the word "poison" and the figure of the skull and cross-bones; and in addition to this, in the case of the more virulent poisons, he must not sell without first registering the purpose for which it is to be used and the name, age, sex, color, size, etc., of the person who buys it.

All these precautions are required of the best druggists in the land, in order to protect the people. Yet the merest charlatan, in fact, any citizen without knowledge whatever of medicine, may combine all the poisons of the catalogue under the guise of proprietary remedies and label them with the most enticing devices and flaming advertisements of their virtues to induce the public to buy them. These nostrums may go upon the shelves of the druggist or grocer without hindrance, and be sold unreservedly when neither dealer nor consumer has the least knowledge of what they are taking or handling.

Arsenic, sulphate of copper, Scheele's green, and many like salts cannot be sold by the most competent pharmacist without the most thorough precautions for the protection of the public, yet the coffee and tea that have become necessary to every table in the land, and the tea which may become the sole source of nourishment to the sick, may be coated with these poisons.

Salicylic acid cannot be sold by any druggist without the "red label" and "skull and cross-bones" as danger signals upon every package, but the grocer and food purveyor may have it incorporated with every article upon his shelves and may deal it out promiscuously to old or young, weak or strong, sick or well alike, and any attempt to prohibit this is met with a cry of "injury to trade or interference with private rights," and prosecutions will not succeed because some robust or healthy person has taken these drugs without manifest injury, or perhaps, in the hands of a skilful physician, the drug may have been used to combat disease.

It is an absolute necessity that every one must eat. It is just as certain that many people are unhealthy when they eat. It is beyond dispute that substances incorporated with food may be very materially injurious to the health of some people, while others may take the same articles with impunity. The food that is perfectly healthy for me now, may be entirely rejected next year. The cup of tea administered to the person convalescing from typhoid fever may produce relapse and death, though the arsenical coating on the tea may have been ever so slight.

Many persons affected with disease of the heart are unaware of that fact. They buy and eat the most beautiful and palatable canned fruits, and the papers record deaths from "heart failure" because of the anti-septic used with the fruit in canning. The milk kept from souring by the use of anti-ferments is given to the children of the poor man, and we have a prevalence of "cholera infantum," and the death rate among children is largely increased. Illustrations might be multiplied almost indefinitely, which prove that there is no safety to consumers except by the absolute prohibition of use in our foods of all substances that neither nourish or aid in

digestion. But when such legislation is asked for, a great cry is raised that trade will be interfered with.

Another class of adulterants may be harmless when used for some purposes, but when used for others may become very injurious to health. A single instance will illustrate. Cream of tartar is used largely in baking. It is also used largely as a domestic medicine. A very large percentage of the cream of tartar found upon the market is composed, in whole or in part, of gypsum and acid phosphate of lime with alum. These substances, when combined in proper proportions, will produce the same results in bread-baking that cream of tartar will, but when used as a medicine, instead of acting as a mild cathartic will have directly the opposite effect. A physician in my own neighborhood very nearly killed his patient from this cause during the past year.

A third class of adulterants are those which are harmless in themselves, but may become injurious and, sometimes, very dangerous to the health of the people when used as adulterants. Wheat bran and buckwheat flour are certainly not injurious to health when pure and fresh, but when incorporated with black pepper (and sold for pepper), they are purchased in large quantities and placed on the dealers' shelves where they remain for months' often in damp places where growths of mold may develop, and become very injurious to the health of the consumer.

Milk constitutes one of our principal articles of diet. Water is a universal necessity; a combination of these would seem to be a matter of the slightest consequence to the health of the people. Recent discoveries in bacteriology have established the fact that almost every form of communicable disease is dependent upon a specific bacterium, that the spores of these bacteria are capable of lying dormant for an indefinite period, and then become most powerfully reproductive. Water, because of its varied and universal use, becomes the most convenient and diffusive means for the transmission of the deadly germs. Milk is the most complete food for the sustenance of animal life, and is a universal food for children. It is also the most fertile medium for the rapid multiplication of disease germs.

This subject was most thoroughly illustrated by Mr. William V. Lusk in a thesis prepared for the Ohio state university, and read before the Microscopical society at Columbus, Ohio, June 1st, 1893. By the kindness of Dr. Lusk and Prof. H. J. Detmers I am permitted to publish the following synopsis of his experiments and conclusions:

He first prepared media for bacteria culture of "nutrient gelatine," nutrient agar-agar, and nutrient potato. These were all thoroughly sterilized and inclosed in sealed glass vessels. He then produced and cultivated from Columbus hydrant water one hundred and fifty-three colonies, of five different species of bacteria. He then experimented with milk, using the same sterilized media that was used with the hydrant water. The milk was drawn directly into a sterilized vessel, and the vessel closed with sterilized cotton. Three experiments were made with this milk:

No. 1.—A test tube containing milk diluted with five per cent of hydrant water, was placed in a warm room.

No. 2.—A test tube containing milk diluted with five per cent of hydrant water, was placed in a cold room.

No. 3.—A test tube containing pure milk was placed in a warm room, same as No. 1. After twenty-four hours bacteria cultures were made from these three samples of milk. At the end of three days No. 1—that is, diluted milk in the warm room—contained more than two thousand colonies of the same five species of bacteria that were found in the hydrant water.

At the end of eight days there were eight or ten colonies in No. 2.

No. 3—that is, pure milk in warm room—was found to contain ten or twelve colonies of two species of bacteria, both different from those found in the hydrant water. The conclusions drawn from these experiments are:

First, that the bacteria found in the diluted milk were transmitted to the milk with the water, and that the milk, before diluting, was comparatively free from bacteria.

Second, that milk forms an excellent medium for transmitting and propagating bacteria.

Third, that milk kept at high temperature has a very great tendency to increase the growth of bacteria.

Fourth, that it is very dangerous to dilute milk with water containing bacteria, as the above experiments show that one single bacterium may increase its species twenty-fold in a very few hours.

These illustrations might be continued indefinitely, but enough has been said to show that almost every adulteration of food or drugs may become injurious to health under certain conditions, while legislation against injurious adulterations alone would fail almost in every case to protect the consumer or to convict the offender.

The true practice would be to prohibit the use of adulterants that add no efficiency to the food or drug with which they are incorporated, and in all cases to require thorough labeling of every article, so that every person may know exactly what he is taking, and the exact proportion in which they are combined.

It is argued that such legislation would interfere with "trade secrets" and individual rights, yet as between these and protection of public health and morals, I prefer the latter. The good of the whole people is greater than the advantage of the individual citizen.

#### CAUSES OF FAILURE.

We do not see all the successful farmers on good land and all the failures on poor land, so we must look to the man and not to the land for the cause of trouble, says the *Home and Farm*.

Under a general statement we might say that failure is caused because the head does not direct the hands, because the farmer is not working on any regular plan, but is managing haphazard, trusting to luck. He has never studied his farm and his market and estimated the cost of production and settled on what he can produce at a profit. If a man who has a hilly farm, suited to sheep and entirely unsuited to hogs and corn, attempts to produce the latter, he will soon find his farm washed and injured, and that his hogs cost too much to leave a fair profit, and he must charge his failure to his bad judgment in choosing the line of business to follow.

Undertaking to do too much is a common cause of failure. There is a host of farmers who always attempt more than they can do well, and then when hindered by unfavorable weather they are soon hopelessly behindhand and can do nothing on time, and this means extra expense to produce short crops. In many cases it means the expense of keeping two teams and an extra hand to work one of them, a double outfit of harness and tools, and the fact that the farmer has invested in these is a constant temptation to plow too much land, and if this is followed long it results in an impoverished soil. Again, the farmer who attempts to do too much work must neglect the small sources of income and comfort which are found in a garden, the berry-patch and the poultry-yard.

#### THE HORN-FLY.

The treatment for the horn-fly is mostly preventive in its nature, and consists of the application to the cattle of odorous substances which will keep the flies from the animals. For this purpose a great many substances have been recommended, but most of them have proved of but little value. The following, however, have given the most satisfactory results at our hands:

First. "Gnat-oil," made as follows: Crude carbolic acid, one ounce; pennyroyal, one half to one ounce; sulphur, one fourth of a pound; crude cotton-seed oil, one gallon. Mix well, and apply with a brush or cloth to the back and shoulders of the cattle. The crude cotton-seed oil is cheaper than the other oils, although fish-oil and lard-oil are equally as good in making the above.

Second. Fish-oil and tar mixed and applied as above is equally effective. The tar is mixed with the fish-oil so that the odor may last longer and thus keep the flies away from the animals a greater length of time. Either of the above will keep the flies away from the animals for several days, after which the application should be repeated.

Third. The flies breed in fresh manure. It is thus important that the barn-yards be kept as clean and free from manure as possible. Lime placed upon the manure will kill the larvae.

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#### THE DAY OF FEW ACRES.

It is logical to suppose that many of our farmers, especially in the East, who still cling to large areas of land do so more from force of habit than for other reasons. It is assuredly hard to expect a man who has spent twenty or thirty years in raising grain, hay or potatoes in large quantities, and who has bought and paid for a farm and raised a family from the proceeds, to get down to making a twenty or forty acre farm pay in other crops. It is therefore safe to assume that the younger generation of farmers are the ones to show us the possibilities of an acre of ground.

That small areas of land can be made to pay, and do pay, there is no question; if an object lesson is wanted, look at the dozens of truck farms contiguous to our great cities. Near New York City, in New Jersey, some of these truck patches are literally built on rocks. Every grain of soil has been carted there, yet barren and dreary as they were originally, their proximity to New York makes them valuable. I am well acquainted with two plots of this land—or more strictly speaking, dirt-covered rocks—and know that one of them, a trifle over four acres, brings the owner a yearly rental of one thousand dollars; the other, perhaps an acre more in extent, but not so well located as the first, rents for eight hundred and fifty dollars per year. These places are rented by truckers who crop them to the greatest possible extent, and that they do it profitably is evidenced by the fact that they stay on year after year.

Lands around other large cities may be pointed out where similar results are achieved under the same conditions. At first blush it seems incredible that land so valuable as to command such high rentals can be turned to profit by such occupation. While it is true that nearness to market is a valuable consideration in the cases mentioned, it must be conceded that the success of the work comes not from this, but from the ability to make every inch of ground yield several profitable crops. Surely these features may be applied successfully to land more distant from the cities, and consequently less expensive to control and operate. G. R. K.

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A WORD TO OUR READERS.

The recent increase in the cash commissions given to our club raisers for the FARM AND FIRESIDE has interested many of our readers in the work. They have tried our new plan of raising clubs, and under the liberal terms now offered, are enthusiastic. They are simply making money.

A few spare hours, idle days or a short vacation cannot be used to better advantage or profit than by getting up a FARM AND FIRESIDE club.

We know that many of our bright young friends who are manfully fighting their way through school, or laying aside all they possibly can for a course in some business or shorthand college, will grasp with pleasure this opportunity of increasing their bank account and shortening the time till the realization of their plans.

Many will find in this work profitable employment for all their time, if they can plan to carry on the work beyond their immediate neighborhood when they have finished there.

If you have not written for our "Special Cash Terms to Club Raisers," you should do so at once.

Our Miscellany.

THE ANT.

WHEN Solomon held up the ant as an example to the people, he probably knew far more of the whys and wherefores of his sayings than those immediately about him, or, indeed, many of those even to the present day who read his words, have ever suspected. While every form of life has its wonderfully interesting features, there is in the life and conduct of the ant much which challenges our admiration and respect as well as excites our curiosity and astonishment.

Sir John Lubbock, who is considered as the best living authority on the habits and peculiarities of these interesting small folk, has recently given some wonderfully interesting accounts of their doings, and relates incidents which go to prove the previous statements of writers on this subject, and show that the ant is possessed of reasoning powers, or that which serves the same purpose, and which places them second only to mankind in the scale of intelligent management of their individual and general affairs. Ants seem to be as varied in their ways and customs as are people, and different tribes, grades, classes and localities show the most marked contrasts in the fashion of living and conducting their special concerns. The ant is usually held up

to the school-boy and mankind in general as an example in the way of industry and economy, and as such is certainly a bright and shining light. As an agriculturist, the ant is a model. It cultivates the ground, plants seeds of various sorts, tends the plants with unvarying care and patience, harvests the crop when in suitable condition, cures it and transports it to storehouses prepared for the reception of the winter's supply of food. It is rare, indeed, that these storehouses are built where water can affect them; but if this happens, and any unusual storm or inundation occurs, there is great consternation in the community. If it is possible to stop the ingress of water, this is done immediately. When clear weather comes again, the grain is taken to the open air, thoroughly dried, assorted, cleaned and prepared for restorage. The warehouses meanwhile have been cleaned by other workers, and if their builders, architects and civil engineers approve, they are repaired; otherwise they are abandoned and new ones are constructed.

Certain sorts of ants hold slaves, and exact tasks of them, with overseers who encourage them to work, and punish the delinquent and disobedient. To secure these slaves, they make wars on adjacent tribes and take the defeated armies as captives. The prisoners, as a rule, are docile and obedient, and go to work under their new masters with as much alacrity as they aforesaid displayed about their own concerns. Their adaptability is one of the curious features of the case. They seem to forget that they know other conditions, and at once fall into the ways of their new associates. There are, according to the same eminent authority, ants in Mexico which cultivate the soil and plant beds of mushrooms, which they grow for their own tables, as it were. They keep milch cows, which are aphides of a certain sort. These they protect, watch over and tend with the most assiduous care.

Their civil engineering is a marvel. Their roadways, tunnels, causeways, walls and fortifications are of such extent that it would seem impossible that such tiny creatures could accomplish such herculean tasks. In the building of their houses and their provisions for comfort during severe weather they exhibit the most marked intelligence; so much, indeed, that many valuable hints might be taken from their methods.

And they, with all of their industry, do not confine themselves strictly to labor. They apparently work on the idea that all work and no play makes Jack a dull boy; therefore, they have their regular amusements, which they go about with a system and gravity which are as interesting as they are amusing. They play games with actors and lookers-on, the same as grown-up folks. They have sham battles, wrestling and playing,

romping and disporting themselves in various ways.

Like mankind, they live on the products of their flocks and herds and their agricultural resources, which they care for and manage with almost as much good sense and judgment as are displayed by the members of the human family in the conduct of their most important concerns.—Ledger.

A BOY'S COMPOSITION.

The threatened revival of the hoop-skirt brings to mind an incident—perhaps it might more appropriately be called an accident—which happened in an old colony town when the crinoline was last permitted by the decree of fashion.

As is usually the case in country towns, the high and grammar schools were in the same building, although in separate apartments. It was then a custom in the grammar school—as it always has been, and probably as it will ever continue to be—to compel the pupils to write compositions. If that should ever become an elective study it would bring happiness to the hearts of many children, says the Boston Herald.

The art of writing with ease and effect is mastered by few small boys, under the best conditions, and in this school the training was not such as to bring out any latent facility in English composition. The task of writing compositions was looked upon by the pupils, therefore, as an irksome duty, and any expedient that promised assistance in the way of relieving their difficulties stirred up no monitor of reproach in their tender and pliant consciences.

In this depressing intellectual atmosphere a boy of twelve was ordered to write a composition. It was to be read on the Friday afternoon following the day on which he received the assignment. The boy was absolutely destitute of ideas. He couldn't think of a topic to write on. In his dilemma he turned to a heap of rubbish in the back yard, which contained the accumulated sweepings of the school-room for years. His instinct told him that he might not only find a subject there, but a composition ready made and complete.

His industry was properly rewarded. In searching the heap of waste he came upon a composition that bore the name of a high-school girl of seventeen. It had been read by her to the school and had been then swept out by the janitor. The boy copied the essay word for word. It was well written, and the boy prided himself that he would make a tremendous impression on the school in reading it. That his plagiarism might be detected did not occur to him. He did not even take the precaution to look up the meanings of several words that were unfamiliar to him.

Friday afternoon came, and in due time the small boy was called to read his essay. It was

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filled with schoolgirl rhetoric descriptive of the trip of a party over green fields, through lovely woods and by the banks of the murmuring streams. The members of the party were out in search of a day's fun, and presently they reached a big barn by the wayside. Going up into the loft, they proposed to have some sport by jumping in the hay.

The boy read from his essay that in jumping from the rafters to the hay, his movements were impeded by his crinoline, so he divested himself of that incumbrance.

Of course, this remark fairly paralyzed the portion of the school that understood the word the boy had failed to comprehend. The teacher took the boy in hand, and with merciless severity fogged him in the presence of the school.

The reading of the composition was never finished.—The Journalist.



OLD GIPSY'S REQUEST.

"Will you let me take your babies for a walk, dear? It's no trouble, for they're always ready drest. And James will stay with you and have a talk, dear. I'm sure you ought to have a little rest!"

"No, thank you very kindly, Mary Ann, dear, They're still too young for such a glorious treat, But I really should be grateful if you ran, dear, And fetched me something really nice to eat!"

"These dog-biscuits they give me are not nice, dear, And a bit of meat's what I should like to see. The biscuits are all right for cats or mice, dear, But not at all the proper thing for me!"

**Selections.**

**REVIVAL OF WOOD ENGRAVING.**

**T**HOSE skilled and well-paid mechanics, the wood-cut proof pressmen, are likely, if the concerted movements of the wood engravers shall succeed, to be busier than they have been at any time since process engraving began to drive wood-cuts from the illustrated magazines. There are few proof pressmen skilled in the delicate craft of proving the work produced by the wood engravers of highest artistic quality. Only two or three offices in New York undertake such presswork, though it is to this city that nearly all the skilled American wood engravers send their blocks. Perhaps the best evidence of the extent to which process engraving has superceded the work of the wood engraver is contained in the fact that a proof pressman, who does most of the presswork for a high-class, illustrated magazine finds that it occupies only a small part of his time.

When a wood engraver is asked to engrave an illustration for a magazine, he presents himself before the art editor, examines the original from which the engraving is to be made, and makes an estimate of what the work will cost. If the price suits the art editor, the engraver carries home the original picture and a composite block of boxwood, bearing upon its polished surface a reversed photograph of the artist's work. When the engraver has spent some days or weeks in producing his engraving, he takes the engraved block to the proof printer to be proved, or "proven," as the old-fashioned inflexion still is in the press-room. This proof the engraver shows to the art editor, and if it pleases the latter, the engraver yields up the original picture, with the engraved block, and receives his money for the work. An electrotype copy of the engraving is made, and from this copy the illustration is printed in the magazine. It sometimes happens that an illustration is so popular that the publisher has a few proofs on Japan paper struck from the original block by the proof pressman, and these are sold to those who like the picture.

The proof pressmen still employ a slightly modified form of the old Washington press, and to enter a proof-pressman's loft is to be carried back in imagination a full century, so antique are the presses and their surroundings. The work of the proof pressman is done with the engraver standing by to direct and to advise. It usually happens that the engraver does not accurately know what he has inscribed upon his block until the truth has been enacted from the engraved lines under the pressure of the proof printer's lever.

The first proof drawn is seldom satisfactory, and it usually requires half a dozen impressions and a full morning's work to produce such a proof as the engraver cares to exhibit to the art editor. As one proof after another is made, the engraver, with his tools at hand, makes whatever small change in his work may seem necessary, and the printer, by a judicious application of paper layers over and under the block, distributes the pressure so as to bring out the proper lights and shades. The most intelligent proof pressmen manage this with great success, and they are somewhat disposed to resent a too insistent and masterful supervision from the engraver. It sometimes happens that the artist of the original picture asks the privilege of seeing the proof, and he may make no end of trouble for the engraver by insisting upon a different interpretation of the work. If all artists exercised such a privilege, the race of engravers would be driven mad, and the proof pressmen would cheerfully submit to be squeezed to death in their own machines.

The scheme of the engravers that may yet enrich the proof pressmen looks to a thorough rehabilitation of the wood engraver's work as an independent form of art. It was believed for a time that the Grolier club would bring out a portfolio of Japan proofs from engraved blocks of original compositions by the best wood engravers. But the club decided such a work to be outside its province, and it is probable that the Society of American Wood Engravers will issue the portfolio. A somewhat similar work, issued several years ago by a rich publishing house of this city, was highly successful, and volumes of that issue originally sold for \$100, have since fetched \$250. Some of the blocks for the proposed portfolio have

already been engraved, and the work promises to be thoroughly representative of American skill in wood engraving, and at the same time an indication of the engraver's capacity for original composition. The original pictures will be in oil, in water colors and in pastel, and the subjects will represent both European and American scenes. The proof pressmen hope that following this portfolio will come a demand for proofs of the original work by American wood engravers, and that the presses will be busied with the best kind of work.—*New York Sun.*

**BLUEGRASS GIRLS ON HORSEBACK.**

I was in Frankfort the other day and saw a sight that was enough to cure any ordinary case of sore eyes, and to make the blood of a Kentuckian dance through his veins like champagne and his eyes sparkle like the "moonstone." It takes a combination to produce this effect on a "native-born," and the blending in this case was most harmonious—a lissome young miss, as graceful as a sapling maple, mounted on a blooded bay thoroughbred, with limbs as keen and swift as the "black-tail" of the boundless prairies of the West. She came down one of the shady avenues of elms and water maples, that are called streets at Kentucky's capital, at a clipping pace, and halting suddenly before an old-time mansion, dismounted and ran laughing in, leaving her horse modestly to wait for his little mistress to return. I watched the pink face, golden hair and handsome riding habit until they disappeared within the wide-open door, and then turned my attention to the horse. His bridle was as delicate as a silken cord, and on his back was a flat, Englishman's saddle with one small stirrup. As I stood looking, the young girl came bounding out the gate and mounted, evidently pleased at the harmless admiration of a stranger.

"How do you manage to stick on that saddle?" I asked.

"Oh, it's the easiest thing in the world," she said. "Father is uneasy sometimes, but I always liked a man's saddle best," and bounding lightly to the horse's back, in another moment she was out of sight.

"That's one of the Kentucky girls we like to read about," thought I; and as I turned away I had a feeling akin to sorrow when I remembered how the graceful, healthful habit of horseback riding was falling into disuse among the Kentucky girls of the present day.—*Louisville Courier-Journal.*

**HOT WATER.**

How innumerable are the uses of hot water, and how beneficial are the greater part of them! When the body is thoroughly exhausted, and life itself is a burden, a plunge into a bath-tub of the restorer, steaming at a point that is precisely the highest which can be borne, with a rest of three or four minutes there, and a swift rubbing afterward, and how remade and just made do we feel, and almost as if we had been dipped in the fountain of perpetual youth! And even if a dip and plunge are impossible, a quick sponging off with hot water gives a sensation of incalculable relief and rest. Not to speak of the offices of hot water in the brewing of the cup which cheers, its effect when drank clear, with the sparkle of the boiling just subsiding, is almost equal in its reviving power to that of champagne.

Not only as a grateful and agreeable draft is it of worth, but as a medicinal one; for any one who has once tried it will not suffer nausea for very long at a time when a cup of water, hot as it can be sipped, will, with most people, so speedily relieve the distress. It is as effectual, too, for the relief of colic, the more ordinary pressure of gas, and other ills resulting from indigestion, as ginger and the alcoholic stimulants. In large things and in small its use is of equal value. What is done for the child in convulsions but to plunge it at once into as hot water as can be endured without scalding? And what is there that has any swifter effect of healing than hot water upon a bruise, dispelling soreness and lameness and discoloration, and making all as it was before the hurt; while for the banishment of nerve-destroying pain and of the ordinary neuralgia it is like the potent drops with which the enchantress in old stories was wont to sprinkle her subjects, and transpose them from one shape to another. In nervous headache no spell or charm or lotion or plaster can equal the excellency of hot water applied by means of cloths wrung out hotter than the hand can bear—the hand being protected by a folded towel—laid then upon the

place of pain, covered with thick and dry cloths to keep the steam in, and renewed every four minutes. And alas! almost every one knows the relief that hot-water baths bring to tired and tortured eyes.

Even savages, whose point—not of civilization, but of the want of it—is far below the boiling point, know the assuaging and comforting power of hot water. Long before America was trodden by other feet than theirs, the various hot springs had been frequented by the Indians for the cure of their ills and ails; and it is they who have often taught us the whereabouts of these Bethesdas, and there are few more interesting sights to-day than one of these hot springs, where the steaming stream gushes from the mountain side, where the sick and the lame are brought on litters and go away dancing. It seems, in the case of the natural outflow of hot water from none know what sources, as if old Mother Earth herself knew what was best for her children, and cooked at her central fires a life-giving broth which puts to shame that broth with which Medea would have made the old young again.

Those who make use of such waters get to fancy that beyond the mere thermal benefit there is a telluric or magnetic or planetary force in them which makes them of double efficacy. But for our own part, heated though those waters be at fires born of the sun's own sacred fire, we doubt if the fire born of man's ingenuity, kindled by the spark struck from his own brain, is not equally potent, and if the water that is boiled at home be not of quite as much worth to the ordinary individual as that of these up-gushing, superheated springs. And in the meantime we are sure that the household is the healthiest and safest, as well as the cleanest and sweetest, where there is always on hand a full supply of hot water; although far be it from us to advocate anything tending toward a support of domestic differences and contentions in the shape of "hot water."—*Harper's Bazar.*

**RATHER WORK THAN PLAY.**

On Philadelphia's police force is a man worth \$150,000, whose income is about \$15,000 yearly outside of his \$20 a week pay. A car driver receives \$2,000 from real estate investments in the tenth ward. A letter carrier, appointed by Postmaster Huidekoper and still doing duty, is worth \$20,000, and a man who serves newspapers from door to door, has money at interest to the amount of \$60,000. The head waiter in the Market street eating-house is worth \$30,000, and a cook in one of the city's hotels owns \$60,000 in bank stocks and \$25,000 in real estate. The sexton of one of the poorest churches in the town has a yearly income of \$7,500, derived from government bonds.—*Philadelphia, Press.*

**THE FERRIS WHEEL.**

The Ferris wheel is undoubtedly the crowning engineering feature of the world's fair. The diameter of the wheel is 270 feet, and the circumference 825 feet, the entire machine being placed 15 feet above the ground. The highest point is 265 feet above the surface of the earth. The axle on which the great wheel turns is a steel bar, 45 feet long and 32 inches

thick. Fastened to each of the twin wheels is a steel hub 16 feet in diameter. There are 36 cars on the wheel, each capable of comfortably seating 40 people. The cars are 28 feet long, 13 feet wide and 9 feet high, and each one weighs 13 tons. The wheel, with its passengers, weighs 1,200 tons. The whole thing rests on two pyramidal towers at the axis. The towers are 140 feet high, 40 by 50 feet at the base, and 6 feet square at the top. Each tower has 4 feet, resting on 20-foot cube concrete foundations. Underneath these are cross-bars of steel. The motive power comes from a 1,000 horse-power steam engine under the wheel.

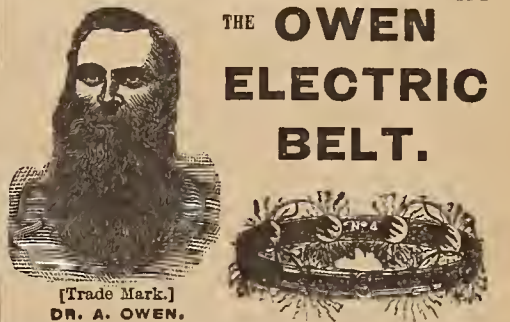
**THE QUEEN OF THE ANTILLES.**

Jamaica has perhaps made greater strides in the way of progress than any of England's smaller colonies during the past twenty-five years, and has some right now to call herself "the queen of the Antilles." Among the evidences of improvement may be cited the hotels which have sprung up in the island, for the building of one of which £24,000 was expended. Then the Americans are laying lines of railway through the best part of the island, and the fruit cultivation is now as productive as that of sugar, while the price of land has risen enormously. Carlyle's shade would be astonished to hear that the once thriftless blacks have managed to put by nearly half a million pounds in their savings banks.—*London World.*

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**AGENTS FOR THIS PAPER MAKE MONEY, AND LOTS OF IT**

Smiles.

'Twas on a Santa Fe express,
In Kansas one bright day,
A curly head quite snugly
On a manly shoulder lay.
The situation was, it seems,
Too tempting to resist,
So when no one was looking, they
Each other slyly kissed.
Just then the brakeman shouted out,
"Eudora!" Quite enraged,
And blushing scarlet, Dora said:
"What of it? We're engaged."

-Kansas City Journal.

The dress reformers would have gowns
Made higher at the throat,
And shorter at the lower end—
A kind of petticoat.
The gentle dames are shrewd enough—
Oh, they have cunning got;
A stocking may be padded,
But a scrawny neck cannot.

-Kansas City Journal.

"Where are you going, my pretty maid?"
"I'm going out shopping, sir," she said.
"Can I go with you, my pretty maid?"
"You're not the shade of green I want," she said.

-New York Herald.

JOSH BILLINGS' PHILOSOPHY.

VANITY is the superstition of pride.
A good wife is a sweet smile
from heaven.

A petted child is like a bile that
won't come to a head.

Pure religion is like good,
old Hyson tea—it cheers but
doesn't intoxicate.

The biggest fool in this world hain't been
born yet; there is plenty of time yet.

"Beware of the dog!" also the whispering
man and the loud-talking woman.

A man doesn't always grow wise as he grows
old, but always grows old as he grows wise.

There is no greater fun for me than to prick
a bladder. Windy folks will please make a note
of this.

I prefer a brass-mounted villain to a soft,
timid, panting hypocrite, who is as unsafe as
a sleeping snake.

THOSE PERSIAN RUGS.

"Where are the rugs that were on the hall
floor, Katie?" asked the mistress of the new
hired girl.

"Oh, ma'am, I made such a bargain for yeez
this morning. There was a rag-peddler come
to the dure whin I was shakin' them rugs, an'
he give me the beautifullest, hand-painted
ornymment for the parlor, ma'am, for them old
things, and took them off in his car-r-t."

WHAT THEY INDICATE.

Bunting—"The large sleeves worn now indicate
an enlarged sense of humor in American
women."

Larkin—"Is that so?"

Bunting—"Yes; they are accustomed to
laughing in their sleeve and they want more
room."

POSTED.

Count Justcomeover—"How varry rude dose
young society leddies in Amerique spik to dose
young men."

Murray Hill—"Indeed? Do you think so?
Have you met many of them?"

Count Justcomeover—"Not one, saire, but I
haf read your journals comique."

THE NEW PLAN.

Hills—"I suppose the bald-headed element
in society will remain in town this summer
in view of the large number of ballets and
comic operas."

Hulls—"Not at all. They have grown wiser
in their old age. They will go to the sea-shore.
Bathing beats ballet."—New York Herald.

WHY SHE ACCEPTED HIM.

"I'm utterly unworthy of you, dear," said
Timberwheel to his fiancee, in an outburst of
self-abnegation.

"I know it, love," replied the gentle maiden,
"but where can I find a man who is worthy of
me?"

DIDN'T LIKE IT.

Tankley—"Goggins sent me a bottle yester-
day containing a snake preserved in alcohol."

Grimes—"Think he meant to insult you?"

Tankley—"I don't know, but I certainly do
not appreciate the gift nor the spirit in which
it was tendered."

THE SOCIAL DEGREE.

Dawkins—"The Duchess of Portland has
been presented with a silver cradle for her
baby."

Mrs. Dawkins—"Who are the Portlands,
John, people whom one could afford to know,
after being presented to the Infanta?"

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With a 2.00 line
And a 4.00 creel;
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And 4.00 flies,
Away with his 12.00 ticket he hies.

Thus he spends.....\$40.00 ere he starts out,
And returns in a week
with..... .10 worth of trout,
And the \_\_\_\_\_
But a blank won't
supply

The thirty-nine, ninety—the sum he is shy.
—San Francisco News Letter.

A little four-year-old was standing at a
window, looking at a load of hides which was
passing by. Jumping down from her chair,
she ran into the kitchen exclaiming: "Mama,
mama, there goes a lot of tails and hooks
to make more cows on!"

She—"I will never marry a man whose
fortune has not at least five ciphers in it."
He (triumphantly)—"Oh, darling! Mine is all
ciphers."—Boston Commercial Bulletin.

It is easy to steal a bicycle.—Elmira Gazette.
Well, you ought to be ashamed to confess it.
Read the ten commandments and reform your
ways.—Elmira Advertiser.

Pray, sir, what is there in the ten command-
ments about bicycles?

"Oh, dear!" sighed Henry, whose clothes are
all made of his papa's old ones. "Papa's had
his mustache shaved off, and I suppose I've
got to wear it now."—Tid-Bits.

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A SUPERFLUOUS REQUEST.

Mama—"What in the world are you making
such a noise down there for?"

Roderick—"To let you know how good I am."

Mama—"Why do you think you are good
when making so great a noise?"

Roderick—"Because you always say I'm in
mischief when I'm quiet."

Senator Peffer says the repeal of the Sher-
man law will break up both the old parties
and build up a new one. What's the matter
with this one? For president, Governor Alt-
geld. For vice president, Johann Most. Plat-
form, Ta-ra-ra-BOMB-de-ay.—Philadelphia
Ledger.

A certain Englishman, not "unknown to
fame," was doing America. One day, while
in New York, he was tackled by the omni-
present reporter and asked to give his opinion
of our glorious country. "Your country," he
said, "is good enough; but really, you know,
I can't always understand the language.
Jove! it is deuced bad sometimes; it positively
makes me shudder. Why, everywhere I go I
hear that curious expression, 'Where am I at?'
Now in the old country, you know, we always
say, 'Where is my 'at?'"—Boston Budget.

"Do you enjoy good health?"
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EASTERN EDITION.

VOL. XVI. NO. 23.

SEPTEMBER 1, 1893.

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## Current Comment.

**T**HE tribunal of arbitration in the Bering sea case has rendered a decision technically adverse to the claims of the United States on every point. Every claim made by the United States relating to exclusive jurisdiction in Bering sea and property rights in the fur seals has been set aside. In spite of this, however, the United States gains the real point at issue—the complete protection and the preservation of the seal industry.

The tribunal decided that Bering sea is an open sea, and that the United States has no property rights in the fur seals outside the three-mile limit. But by regulations to be concurrently adopted by the United States and Great Britain, pelagic sealing is prohibited at all times within sixty miles of Pribilof islands, the breeding-grounds of the seals; outside this limit it is prohibited during the months of May, June and July, leaving practically only one month in the year for seal fishing. The use of firearms, nets or explosives in seal fishing in Bering sea is absolutely prohibited.

The decision of the court of arbitration settle a seven years' dispute, and are, in the main, acceptable to the government and people of the United States.

**T**HE business situation is thus described in President Cleveland's message to Congress:

With plenteous crops, with abundant promise of remunerative production and manufacture, with unusual invitation to safe investment, and with satisfactory assurance to business enterprise, suddenly financial distrust and fear have sprung up on every side. Numerous moneyed institutions have suspended because abundant assets were not immediately available to meet the demands of frightened depositors, surviving corporations and individuals are content to keep in hand the money they are usually anxious to loan, and those engaged in legitimate business are surprised to find that the securities they offer for loans, though heretofore satisfactory, are no longer accepted. Values supposed to be fixed are fast becoming conjectural, and loss and failure have invaded every branch of business.

As to the cause, he gives his opinion as follows:

I believe these things are principally chargeable to congressional legislation touching the purchase and coinage of silver by the general government. This legislation is embodied in a statute passed on the 14th day of July, 1890, which was the culmination of much agitation on the subject involved, and which may be considered a truce, after the long struggle between the advocates of free silver coinage and those intending to be more conservative.

The opinion that the act of 1890, aptly called a truce, is the principal cause of the present business depression is not generally conceded to be correct. However, as

to the operation of that law his statement is clear and correct, and his argument convincing that the repeal of the silver bullion purchasing clause would do much to restore confidence and better the situation.

This law provides that in payment for the four million and five hundred thousand ounces of silver bullion which the secretary of the treasury is commanded to purchase monthly, there shall be issued treasury notes redeemable on demand in gold or silver coin, at the discretion of the secretary of the treasury, and that such notes may be reissued. It is, however, declared in the act to be "the established policy of the United States to maintain the two metals on a parity with each other, at the present legal ratio, or such ratio as may be provided by law." This declaration so controls the action of the secretary of the treasury as to prevent his exercising the discretion nominally vested in him, if by such action the parity between gold and silver may be disturbed. Manifestly a refusal by the secretary to pay these treasury notes in gold, if demanded, would necessarily result in their discredit and depreciation, as obligations payable only in silver, and would destroy the parity between the two metals by establishing a discrimination in favor of gold.

Up to the fifteenth day of July, 1893, these notes had been issued in payment of silver bullion purchases to the amount of more than \$147,000,000. While all but a very small quantity of this bullion remains uncoined and without usefulness in the treasury, many of the notes given in its purchase have been paid in gold. This is illustrated by the statement that between the first day of May, 1892, and the fifteenth day of July, 1893, the notes of this kind issued in payment for silver bullion amounted to a little more than \$54,000,000, and that during the same period about \$49,000,000 were paid by the treasury in gold for the redemption of such notes.

The excess of exports of gold over its imports for the year ending June 30, 1893, amounted to more than \$87,500,000. Between the first day of July, 1890, and the fifteenth day of July, 1893, the gold coin and bullion in our treasury decreased more than \$132,000,000, while during the same period the silver coin and bullion in the treasury increased more than \$147,000,000.

Unless government bonds are to be constantly issued and sold to replenish our exhausted gold, only to be again exhausted, it is apparent that the operation of the silver purchase law now in force, leads in the direction of the entire substitution of silver for the gold in the government treasury, and that this must be followed by the payment of all government obligations in depreciated silver. At this stage gold and silver must part company, and the government must fail in its established policy to maintain the two metals on a parity with each other. Given over to the exclusive use of a currency greatly depreciated according to the standard of the commercial world, we could no longer claim a place among the nations of the first class, nor could our government claim a performance of its obligations so far as such an obligation has been imposed upon it, to provide for the use of the people best and safest money.

Here is some cold comfort for the "fiatists" and advocates of a depreciated currency:

The knowledge in business circles among our own people that our government cannot make its fiat equivalent to intrinsic value, nor keep inferior money on a parity with superior money by its own independent efforts, has resulted in such a lack of confidence at home, in the stability of currency values, that capital refuses its aid to new enterprises, while millions are actually withdrawn from the channels of trade and commerce to become idle and unproductive in the hands of timid owners. Foreign investors equally alert, not only decline to purchase American securities, but make haste to sacrifice those which they already have.

The president has one good word for silver:

Possibly, if the undertaking we have in hand were the maintenance of a specific known quantity of silver at a parity with gold, our ability to do so might be estimated and gaged, and perhaps, in view of our unparalleled growth and resources, might be favorably passed upon. But when our avowed endeavor is to maintain such parity in regard to an amount of silver increasing at the rate of fifty millions of dollars yearly, with no fixed termination to such increase, it can hardly be said that a problem is presented whose solution is free from doubt.

As to the remedy, the president says:

I earnestly recommend the prompt repeal of the provisions of the act passed July 14, 1890, authorizing the purchase of silver bullion, and that other legislative action may put beyond all doubt or mistake the intention and the ability of the government to fulfill its pecuniary obligations in money universally recognized by all civilized countries.

**A**LTHOUGH convened in extra session under extraordinary circumstances demanding prompt action, and urged by the president, by the press and by the people that it is of the utmost importance that such relief as it can give should be given quickly, Congress has deliberately chosen to act slowly.

The house, it is true, has fixed a date for voting on a repeal bill, allowing for debate more than ample time. The people are waiting as patiently as possible under the circumstances. The senate has, as yet, fixed no limit to debate or time for taking a vote on a repeal bill, or even on any measure affording immediate and temporary relief. Immediate action is what the country demands.

To prolong debate and delay action is for the senate to defy public opinion. A ratio of 100 to 1 is entirely too high to maintain a parity between eloquence and execution—wind and work.

**T**HE special attention of our readers is directed to an article on the following page on the school of agriculture of the Ohio state university. Equipped complete in every particular, with a full corps of able teachers, with buildings, laboratories, apparatus, and a large, well-stocked farm, and with courses of study adjusted to time and means, this school offers to students a most excellent opportunity for obtaining practical and scientific instruction in every branch of farming. Let every young farmer who can seize the opportunity. At this school he can get what he needs most and what will contribute most to his future success and happiness—a thorough, practical, business education in agriculture. The constant drift from country to city for many years past has left advanced agriculture a field freer from competition than any other. Against this drift a reaction must come before long. The educated, earnest, progressive young farmer of to-day has a golden opportunity. He will realize it as soon as the clouds now overcasting the commercial world roll by. He has an honorable and healthful employment, and in the near future his compensation will surpass that from almost every other line of ordinary, legitimate business.

The instructors and students of the Ohio school of agriculture are, and have been, diligently and successfully laboring to make agricultural instruction popular. The farmers of the state are taking more interest in the school than ever before. The attendance was largely increased last year.

Some counties have failed to make the appointments for free scholarships, to which they are entitled, and are without

representatives in the school. Let them make appointments for the coming term. The cost of attending the school is nominal. With a free scholarship and one hundred dollars in cash, or even less, an active, energetic student may expect to get through. If there are any farmer boys who want to attend this school the coming term, but are prevented by lack of means, let them write to the publishers of this paper. FARM AND FIRESIDE will give them a good opportunity to earn the necessary cash. Desired information concerning the school of agriculture will be furnished on application by Prof. Thomas F. Hunt, Columbus, Ohio.

**T**HE Rape-plant—Its History, Culture and Uses," is the title of a recent publication by the department of agriculture for general distribution among farmers. It can be obtained by addressing the secretary of agriculture, Washington, D. C. Wherever it can be successfully grown, rape makes valuable autumn pasture for cattle and sheep, especially for the latter. It comes in after corn is harvested, in a season when some good forage plant is needed to supplement the pastures, prevent them from being too closely cropped, and allow them to provide their natural protection for winter. Sheep raisers may be feeling a little too gloomy at present to take much interest in anything relating to their industry, but they ought not to fail to read this pamphlet on that account.

**T**HE present low price of wheat will probably have the effect of largely reducing the acreage sown this fall. Reduction of acreage means better prices in the future. But it is not wise to abandon wheat raising and rush into something else. Nearly all those who abandon wheat will select the farm crop that now pays best, with the probable consequences of an overproduction of that crop and a fall in its prices. At the present time the world's supply of wheat and demand for it are more evenly balanced than they have been for some years. Many changes may take place before next harvest. The probabilities are all on the side of better prices for wheat in the future. Better culture on reduced acreage, not abandonment of wheat raising, is the safe plan to follow.

**W**HATEVER the exportations of good hay and bright rye and oat straw, on account of the forage famine in Europe, may amount to, it is wisdom for the American farmer to save and use his enormous crop of corn fodder. Bright, well-cured corn fodder is better and cheaper food for horses, cows and sheep than the average grade of hay. Save the fodder and turn the hay into cash. One half the food value of the corn-plant is in the grain; the other half is in the fodder. This is a fact that will bear repetition until the enormous waste of the most valuable by-product of the farm ceases. Read the practical article on this subject on the fifteenth page of this issue.

**A** GENERAL and severe drought has reduced the yield of early potatoes and greatly damaged the growth of late potatoes. The average condition of the potato crop in August has been lower only twice during the past ten years—in 1887 and in 1890. The drought has prevailed over extensive areas, and the Colorado beetle has been hard at work in some sections. Prices for potatoes will not rule low, as the conditions have been decidedly unfavorable for a full crop.

## FARM AND FIRESIDE.

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### THE OHIO STATE UNIVERSITY—ITS SCHOOL OF AGRICULTURE.

**T**HE Ohio state university is divided into seven schools, alphabetically, the schools of agriculture, arts and philosophy, engineering, law, pharmacy, science and veterinary medicine. It is the purpose of this article to describe briefly one of these schools—the school of agriculture. It may be said in passing, however, that the university has seventy instructors, twenty-five departments of study, nine large buildings devoted to instruction, fourteen laboratories and about 800 students. The lands, buildings and equipment are estimated to be worth \$2,000,000.

The school of agriculture offers three courses of study, the short course in agriculture of two years, a four-year course in agriculture, and a course of similar length in horticulture. The first year of the short course is preparatory to the freshman year of either of the four-year courses. At the end of the first year of the short course the student has two strings to his bow. He may complete the short course by taking the second year of the course, or he may become a freshman in either of the full four-year courses. It is in this short course in agriculture that the board of trustees offer a free scholarship annually to one student from each county of the state. The second year of the scholarship is also good for the freshman year of either of the long courses.

The instruction given by the department of agriculture, or the purely agricultural work, consists of three branches, or courses, of study extending through the year. The first of these branches consists of the equipment of the farm, the study of soils and farm crops. The second branch of study consists of the breeds of live stock, their history, character and use, the principles of breeding, stock feeding and hygiene. The third course of technical agricultural work consists of a careful study of animal form, lectures on dairy husbandry and rural economy.

Of the 337 acres of university property, about 180 acres may be considered to belong to the farm proper. This is equipped with \$5,000 worth of live stock, machinery and apparatus. This equipment is mostly new, having been purchased within the past thirteen months. During the past year as much as fifty acres of the farm were in experiments of a more or less elaborate nature, including the fertilizer work conducted for the Ohio experiment station, of Wooster, with which the public is already favorably acquainted.

The purpose of the farm, however, is educational rather than experimental. Breeds of live stock and varieties of farm crops are raised for the purpose of study by the student and the experimental work is incidental. The farm is in no sense a model one, and it would be inconsistent with its true purpose to attempt to make it so. Neither is it run for the purpose of making money, but to give the student an opportunity to make a thorough study of agriculture.

The board of trustees consists of seven members, who exercise final jurisdiction over everything that pertains to the institution. There are three standing committees of this board: The executive, finance and farm committees. The late President Hayes was chairman of the farm committee prior to the appointment of Dr.

connected therewith is performed in the laboratory, greenhouse, gardens, orchards, ornamental grounds and forests. In the junior year, general horticulture is taken up and such subjects as pomology, viticulture, vegetable gardening, seed-growing and small fruit culture are studied. In the senior year, arboriculture, forestry and landscape gardening are treated in the

and not because the atmosphere is detrimental to manual labor.

One of the departments of study particularly connected with the school of agriculture is that of agricultural chemistry. The work begins with lectures and recitations on the principles of chemistry. In about four weeks the student is placed at work in the laboratory and instructed in



VETERINARY HOSPITAL.

class-room and illustrated in a practical manner in the greenhouses, on the grounds, and by visits to other greenhouses and grounds. Floriculture is similarly taught.

The department of horticulture has under its immediate control about thirty acres of land. About one half of this is in fruit, and a large number of the best varieties are well represented. Special attention is paid to market gardening, and the students

qualitative analysis, the lectures being meanwhile continued. The student thus early introduced into the practical work of the chemist soon becomes an enthusiastic worker.

The lectures on the application of chemistry to agriculture include lectures on the ingredients of plants, sources of plant-food, the nature of soils, soil exhaustion and amelioration, barn-yard manure and commercial fertilizers, feeding stuffs and feeding rations. There is also a series of lectures on the industries of butter and cheese, starch, sugar, glucose and vinegar, treating especially of the value of chemical knowledge in conducting such operations.

The department of agricultural chemistry occupies an important portion of the large chemical building, erected and equipped in 1890 at a cost of \$62,000. This department has a lecture-room with seats for sixty students, a preparation-room, a laboratory with desks for fifty-four

students, a laboratory for organic analysis, a storeroom, a balance-room and a private laboratory. The apparatus, equipment and illustrative material is ample and thoroughly modern.

There is a special course in veterinary medicine, requiring three years for its completion. This course is for those who wish to become practitioners in this important branch of medicine. The work required of the agricultural student includes lectures on anatomy and on the nature and treatment of infectious and contagious diseases of live stock. Surgical diseases and operations and obstetrics may be taken. There is work in the dissecting-room, and daily clinics are held during the college year. The hospital in the rear of the veterinary building affords excellent facilities for the care of patients and for the study and treatment of their ailments. The bacteriological laboratory is one of the features of this building.

While botany is one of the general studies of the university, a special course of advanced botany is taught for the students of the school of agriculture. This course is taken in the freshman year, and consists in the fall term of the character, function and methods of plant growth; in the winter term a special study is made of plants which are of practical utility; in the spring term the diseases of the farm and garden crops are studied. All these subjects are taught by lectures and practical laboratory work. This department also has a special building which was provided for in 1883 by a state appropriation of \$15,000.

All the required work of the department of zoology and entomology is taken by the students of the school of agriculture. In the second year of the short course in agriculture students devote three hours a



L. B. WING.



W. I. CHAMBERLAIN.



JOHN T. MACK.

FARM COMMITTEE OF THE BOARD OF TRUSTEES, OHIO STATE UNIVERSITY.

Chamberlain to the board of trustees, after which the latter became chairman of this committee. The one who by his long connection with this committee, active interest, intimate knowledge and wise counsel in all that pertains to the university estate, deserves special mention, is Mr. L. B. Wing, of Newark, Ohio. Mr. John T. Mack, on his appointment to fill the vacancy caused by the death of President Hayes, became at once a member of the

have an opportunity of observing all the operations from the sowing of the seed to the marketing of the crop.

Horticultural hall contains the offices and class-room of this department, and also the offices of the professor of agriculture and his assistant, the foreman of the farm. In connection with this building are two forcing-houses for hastening the maturity of vegetables. One new and interesting feature in the management of these houses is the method of watering by sub-irrigation. This method marks a great step in advance in the profitable forcing of vegetables.

Much of the work on the farm and in the gardens, orchards and greenhouses is done by voluntary student labor, for which they are paid. At the present time, during vacation, all the work on the farm is done by students, excepting occasionally a hand or two during threshing or other special work. During the ten months of the last school year, seventy-five students worked more or less, and were paid in the

aggregate \$2,557.57, the total pay roll for that time being \$3,199.73. During this time three students each earned over \$200, six earned amounts ranging from \$120 to \$170, four from \$55 to \$95, fifteen from \$20 to \$50, while forty-seven earned lesser amounts. Some of the students working in the greenhouses and gardens did equally well. If this educates students away from the farm it is because they get too much of it,

farm committee, from his well-known interest in agricultural matters.

The department of horticulture begins its instruction with a course of study entitled the "Elements of Horticulture and Forestry." General subjects, such as the location for horticultural work, preparation of the soil, drainage and irrigation, fertilizers, tools, implements and buildings, are discussed. The practical work con-



CHEMICAL BUILDING.

The instruction of the university is divided into twenty-five departments of study. While the students of the school of agriculture have studies in almost all of these departments, only that part of the instruction given in the school of agriculture which may be considered technical, or which is particularly modified to meet the requirements of the school of agriculture, can here be touched upon.



week to economic entomology, collecting, rearing and preserving insects and practice in spraying and other means of controlling insect pests. In the freshman year of the full courses of this school general zoology and entomology are studied throughout the year. This includes both recitations and laboratory work, and is made to be of the largest possible help to the students of agriculture and horticulture.

The outfit of this department is ample, consisting of general zoological collections, an entomological collection, a series of

prudent and cautious even in these matters. It happens only too often that a trip started in joyful anticipation ends in grief and sorrow. The other day a family consisting of man, wife and seven-year-old boy, an only child, came to Niagara Falls on a pleasure trip. Going to one of the elevators leading down to the whirlpool rapids, the boy ran ahead and tumbled down by the side of the elevator to the bottom, two hundred feet below. Instead of the bright boy that the parents brought with them in the morning, they took home a shapeless mass scarcely bearing any resemblance to a human body, and with it grief enough to last them for years. This sudden transformation of pleasure into sorrow is nothing uncommon. A few days ago three boys near here went to the river to bathe and swim. One of them did not know how to swim, but being called a coward by the others, jumped into the river, and together with one of the other boys who came to his assistance, was drowned.

Water invariably has an irresistible fascination for boys. I encourage my two boys to bathe almost daily, the older one (fourteen years of age) now being a fair swimmer, but I usually go with them, and emphatically discourage them to go alone. Some of the best swimmers have been taken with cramps while in the water, and were drowned. In my youth I used to venture far out in deep rivers and lakes. Now, while I still like an occasional plunge headlong into deep water, I prefer to stay near some support. One of our favorite ways is to plunge from the boat, let the boat float and swim alongside of and around it down stream.

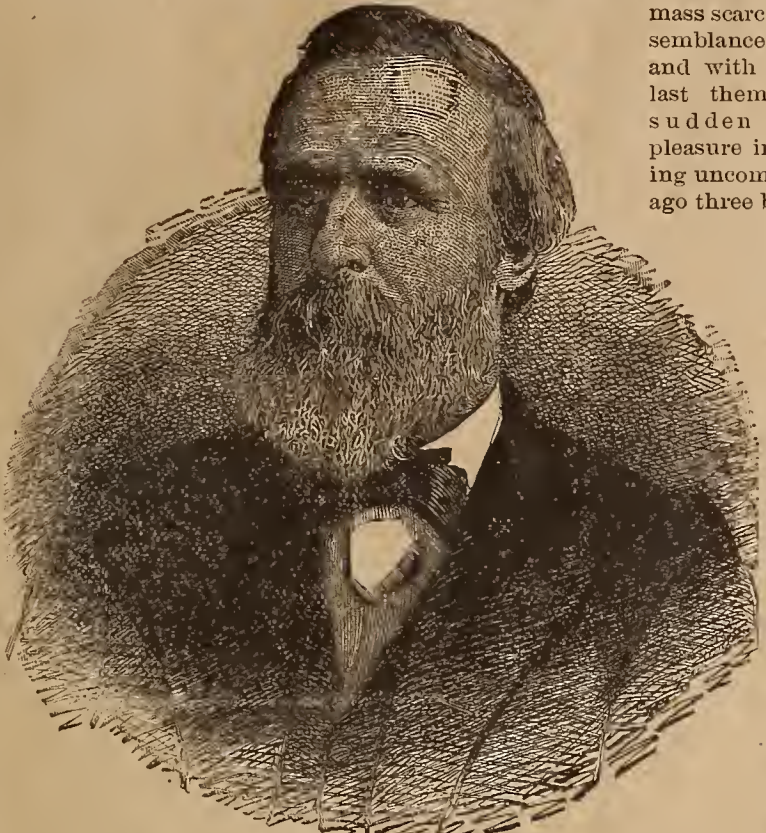
No use running unnecessary risks. We all must and should be cautious when going into water with which we are not fully acquainted. Recently a lieutenant

venture in such streams deeper than waist-high. Persons not swimmers lose all control over their movements when the water reaches to the arm-pits. Always be sure to know what you are about before you go into the water.

Another pastime that demands the sacrifice of many human lives every year is sailing. It is so nice to go before a light breeze with swelled sails; but it is always risky business. Nobody should fly a sail in any kind of wind and water unless he has good judgment and considerable experience in handling a sail, and is acquainted with the water. One cannot be too cautious. Gales often spring up all at once, although a storm seldom comes without giving warning of its approach. I like to be spinning along over rough water; but I handle the sail myself and have it under full control, and at such times I take nobody in who is not a swimmer, and then we prepare for emergencies. Should the boat capsize we are ready for the

**TO BORROW, OR NOT TO BORROW.**

Apropos of the question of lending and borrowing, there is much which may be said on the subject, pro and con, and yet, after all, circumstances rather than habit, or set rules must, in most cases, guide us. While, as it is shown (page 5, June 15th issue), there are borrowers who have become so wedded to the habit as to be nuisances, the line may not be drawn too closely in our farming communities, for we are too much dependent on one another. In cities or towns it is an easy



RUTHERFORD B. HAYES.  
FORMER CHAIRMAN OF THE FARM COMMITTEE.

skeletons, alcoholic specimens and all needed instruments.

If space permitted we would be pleased to describe some of the less closely allied, not none the less important, departments of study which are taken up by the students of the school of agriculture. For example, important instruction is given in geology. The facilities of instruction in this department have always been good, but now there is nearly completed at a cost of \$90,000 a special geological building, known as Orton hall, after the venerable and well-known professor of geology. Here the many and intricate relations between geology and agriculture are discussed.

The agricultural student gets his shop practice in a building recently erected for this class of work, at a cost of \$50,000, and called Hayes hall, after the late President Hayes, whose influence while a member of the board of trustees secured its erection.

Valuable instruction in physiology, physics, civil government and constitutional history, political economy, mental and moral philosophy, English and the modern languages can here only be mentioned.

**NOTES ON RURAL AFFAIRS.**

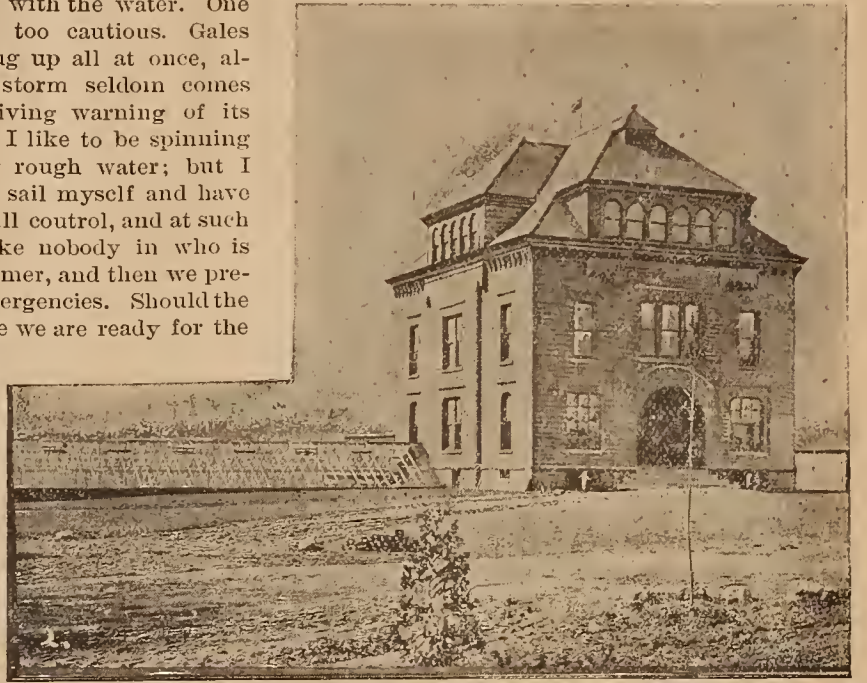
**SUMMER OUTINGS.**—A great deal of sense and wisdom is embodied in old, popular sayings. There is, for instance, that well-known "All work and no play, makes Jack a dull boy." This is certainly as true as the gospel. Boys must have their play and fun and recreation, or they will soon become disgusted with farm work and farm life. There is enough of misery and pain in our existence. We must try to enjoy what good things are within reach, and on no account are we justified in taking all the brightness, all the sunshine out of boyhood and girlhood days, and fill them prematurely with grave responsibilities. I believe in allowing boys to go to the circus, and to fairs and to picnics, and to the river to bathe and swim, and occasionally on the cars, or fishing, or to other harmless amusements and sight-seeing.

But after all we should not neglect to be

of the United States army plunged headforemost into a shallow pond, supposed to be deep, upon sharp stones two feet below the surface, which cut his head so fearfully that he was taken out of the pond unconscious, and soon died. Persons not having fully mastered the art of swimming, have no business whatever in water unless they are sure of every foot of ground. Some of these rivers like the Niagara have strong currents and treacherous ground; often they lead you on gradually in shallow water, and then all at once fall off to great depth. Hundreds of people lose their lives every year in just such a way. It is dangerous for all who are not swimmers to

be something in it, and I am fully convinced that it will be worth while to inquire somewhat closer—namely, by tests and trials—into the merits of the plant. It has for ages been in cultivation in the Old World, and possesses there an undisputed claim as a crop of great economic importance. Rape is a quick-growing plant, and Prof. Shaw recommends it for fall pasture (especially to sheep owners), also soiling as a catch crop, for green manuring, and as a cleaning crop. All who have stock to feed (and what farmer has not?) should apply to the department in Washington for a copy of the bulletin, and give it their careful attention.

JOSEPH.



HORTICULTURAL HALL.

swim. I have seen boats capsized that were handled by young men who were almost brought up on the river. In such cases it is the recklessness in braving dangers that does the mischief. But persons without a long river experience should keep their hands off the risky business, which sailing on a large river or a lake, or in the harbor, always is and will be.

**RAPE AS A FODDER PLANT.**—Farmers' bulletin No. 11, issued by the department of agriculture, contains a treatise on the rape-plant by Prof. Thos. Shaw, of Ontario, Canada. I have heard the professor talk on rape, and know him to be a great enthusiast on rape and rape growing. It is not reasonable to suppose that a man of Prof. Shaw's great mental caliber would simply use rape as a hobby. There must

matter to replace a lost bolt or a broken bar, but in the country great loss would often result if we would not or could not borrow to meet the emergency. When, however, it comes to the question of borrowing or loaning expensive farm tools, the subject assumes a more serious aspect, and if some plan of renting, similar to the following, could be adopted, the result, it seems to me, would be much more satisfactory than under the present unpleasant system.

A is the owner of a new seed-drill which is the pride of his heart and the envy of his neighbors. Proud of his possession, which has cost him many little self-denials, he fidgets and worries, however, knowing that before long his neighbors will want to borrow it. While he is a generous, open-hearted man, to tell the truth he doesn't want to lend this seed-drill; but how can he avoid it without giving offense to his neighbors? At last he hits upon a plan, and in the leisure of a rainy day makes a tour among his neighbors, and has formed what may be termed an "Anti-lending-borrowing association." It was agreed that a fixed sum per day should be paid for the use of any tool or implement, and that the said article must be returned in good condition, and the rental paid on its return; this was to avoid any accumulation of small debts, which afterward might create more ill-feeling than did the borrowing.

Isn't the plan feasible? Isn't it business-like? And surely everyone will agree that it is entirely fair. Then it cannot fail to shut out the chronic borrowers, who never have anything of their own to lend any one, and who wouldn't lend it if they had.

As to the borrowing back and forth of soap, oil, butter, straps, nails, cake, baking-powder, etc., ad infinitum, I must confess I have no remedy to offer; this part of the question is too vast for me to grapple with.

GEO. R. KNAPP.



BOTANICAL BUILDING.

**Rich Red Blood**

Is the natural result of taking Hood's Sarsaparilla. Mrs. Mary F. Toms, of Niantic, Conn., author of a very beautiful volume of poems, entitled "Sacred Songs," says: "I find that for feeling of deadness of the limbs, constipation and poor circulation of the blood, Hood's Sarsaparilla has no rival. I have been troubled severely with a fibroid tumor, besides seven fatty tumors on my left arm. My blood was in very poor condition, watery and deficient in color. Since taking Hood's Sarsaparilla I have good rich, red blood, and do not bloat as I used to."



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## Our Farm.

### GARDEN AND FIELD NOTES.

**T**HREE THINGS FOR SUCCESS.—History attributes to one of the great old warriors the saying that three things are necessary for successful warfare; namely, first, money; second, more money; and third, a great deal of money. Thus it is in successful gardening. Three

come. The early celery will be late at best, and possibly entirely missing. I have once stated that under the new culture we can raise celery as easily as carrots. This probably is exaggerating things a little. Carrots will do well enough on fairly good soil and with ordinary manuring. Celery, closely planted, needs five or more times the manure that carrots do, and a lot of water besides. But if food and drink is given in abundance, celery is grown easily enough. Our minister, whom I taught

to the load. This, I think, is getting manure reasonably cheap.

Now you may want to know how much I am putting on the land. Am just preparing a little patch to sow onion-seed for bunching onions (green onions). The patch is seventy-two feet long and thirty feet wide, or almost exactly one twentieth of an acre, and has received six loads of manure, or at the rate of one hundred and twenty loads (equal to one hundred and twenty tons) to the acre. But it is now in shape to produce something more than merely a moderate crop; in shape, indeed, to grow to perfection any kind of vegetable crop I have a mind to plant on it.

Every foot of land that I wish to crop in garden stuff next year will be manured in just this way. I do not take much account of the labor of hauling. The horse would probably stand idle otherwise, and there is not much other work for the boy, either. Later on, when school-time approaches, I may buy manure from the cattle-yards at East Buffalo, by the car-load. This will be delivered at the station here, a quarter of a mile from my place, thus saving time in hauling. But manure is the thing we must have and will have. Manure, more manure, and A GREAT DEAL OF MANURE.

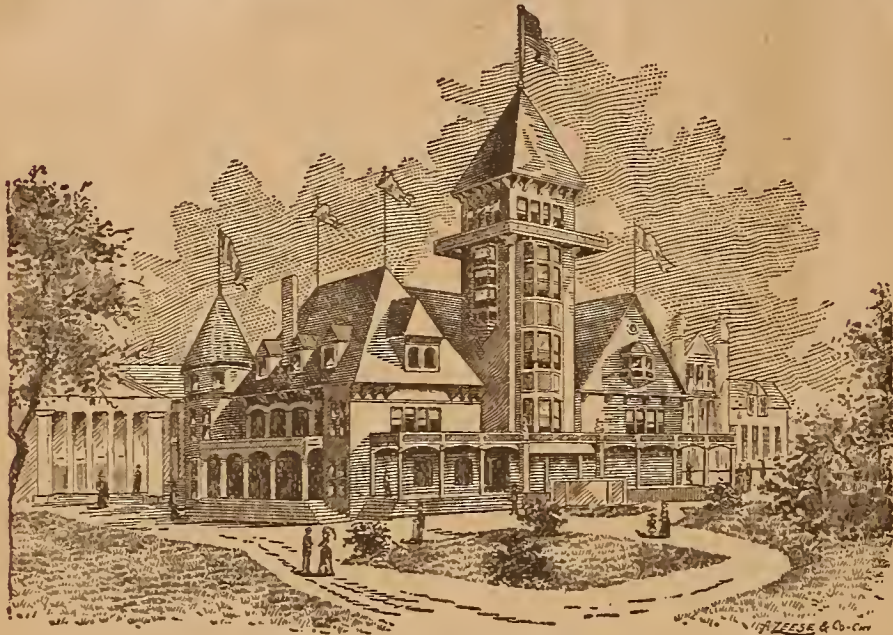
JOSEPH.

### STATE BUILDINGS AT THE COLUMBIAN EXPOSITION.

The Michigan building, constructed of material native to that state, contains interesting historical relics and an exhibit of the agricultural, mining and manufacturing products of the state.

The colonial building of Ohio, with its parlors and committee-rooms, is a pleasant club-house for the Buckeyes and their friends.

The Washington building, of native material, is an interesting exhibit in itself. It is a frame structure on a foundation of



MICHIGAN STATE BUILDING.

things are absolutely necessary and indispensable; namely, first, manure; second, more manure; and third, a great deal of manure. A little observation soon shows this. Applications such as are common for ordinary farm crops, say eight or ten loads to the acre, produce inferior crops in the garden. If we want fine vegetables and plenty of them, we have to pile the manure right on, and this manure should be well rotted and as fine as possible; not the raw, coarse stuff, consisting mostly of dry litter, that comes directly from the stables where bedding is used with great liberality.

A piece of a third of an acre, which I had covered with old compost three or four inches deep two years ago, gave the most wonderful mass of vines and crop of cabbages and other vegetables that I ever saw. From August until time of gathering the squashes we did not walk through the squash-patch, simply because the tangle was such as to make it a big task to pick one's way through it. Bush Lima beans grew so rank and fast that I did not succeed, as intended, in keeping the plants in bush form by repeated cutting back. The cabbages, planted three feet apart, covered the ground so completely that we preferred to stay on the outside of the patch. Last year only a fair application of manure was made. The crop of vegetables on this piece of ground was fair, but by no means wonderful. This year I tried it without manure, as the soil seemed to be rich and apparently yet filled with the decayed remains of the manure applied. Late cabbage, notwithstanding the drawback of a dry season, is doing finely; cucumbers and melon vines are growing fairly well, but the former would undoubtedly have made better growth and yielded more pickles if manure had been given them outside the repeated applications of tobacco dust and bone-meal to the hills made for the purpose of keeping the bugs in check. Egg-plants, while making a fair growth, do not produce the eggs that we gathered from plants grown in freshly and heavily manured ground last year. Still more unsatisfactory, in view of the heavy yields obtained before this under the stimulus of fresh, heavy manure applications, is the behavior of our bush Limas this year. I have some pods to pick, but not one half the number on a plant that I am in the habit of getting from them.

The early celery, planted closely on the new method (five by ten inches, according to directions for "the new culture"), is and will be a failure; possibly a total, surely a partial one. This is, in a measure, due to my trip to Chicago. This crop needs an excess of manure, and heavy applications for each crop. I was well aware of it, and intended to strew the ground between the plants thickly with dried blood, dried fish and other fertilizers; also, to mulch heavily on top of this with old compost. All this was neglected. Then came the long drought, interrupted only once by a good rain, and still continuing. Blight also attacked the plants at an early stage, and I am not hopeful concerning the out-

come. The early celery will be late at best, and possibly entirely missing. I have once stated that under the new culture we can raise celery as easily as carrots. This probably is exaggerating things a little. Carrots will do well enough on fairly good soil and with ordinary manuring. Celery, closely planted, needs five or more times the manure that carrots do, and a lot of water besides. But if food and drink is given in abundance, celery is grown easily enough. Our minister, whom I taught

to the load. This, I think, is getting manure reasonably cheap.

Now you may want to know how much I am putting on the land. Am just preparing a little patch to sow onion-seed for bunching onions (green onions). The patch is seventy-two feet long and thirty feet wide, or almost exactly one twentieth of an acre, and has received six loads of manure, or at the rate of one hundred and twenty loads (equal to one hundred and twenty tons) to the acre. But it is now in shape to produce something more than merely a moderate crop; in shape, indeed, to grow to perfection any kind of vegetable crop I have a mind to plant on it.

Every foot of land that I wish to crop in garden stuff next year will be manured in just this way. I do not take much account of the labor of hauling. The horse would probably stand idle otherwise, and there is not much other work for the boy, either. Later on, when school-time approaches, I may buy manure from the cattle-yards at East Buffalo, by the car-load. This will be delivered at the station here, a quarter of a mile from my place, thus saving time in hauling. But manure is the thing we must have and will have. Manure, more manure, and A GREAT DEAL OF MANURE.

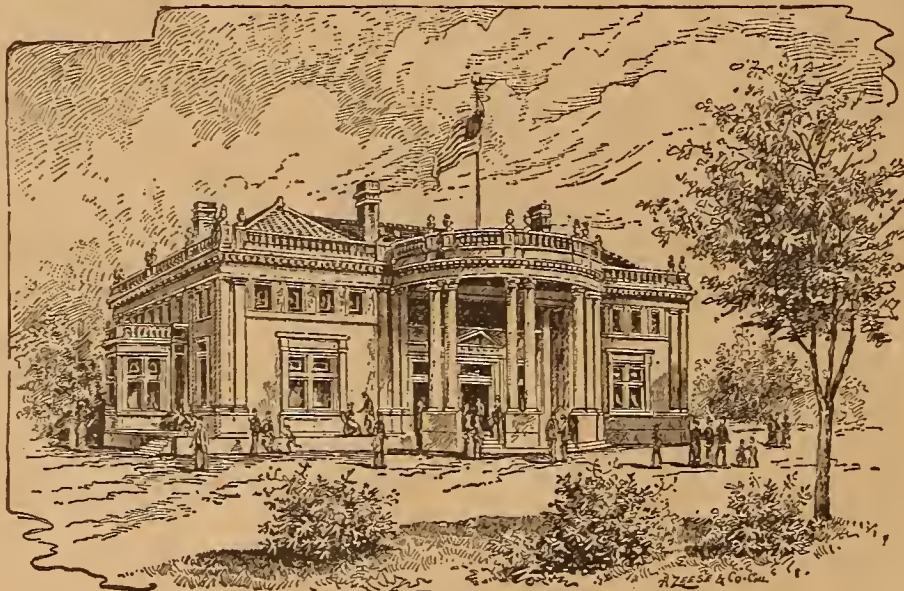
JOSEPH.

STATE BUILDINGS AT THE COLUMBIAN EXPOSITION.

The Michigan building, constructed of material native to that state, contains interesting historical relics and an exhibit of the agricultural, mining and manufacturing products of the state.

The colonial building of Ohio, with its parlors and committee-rooms, is a pleasant club-house for the Buckeyes and their friends.

The Washington building, of native material, is an interesting exhibit in itself. It is a frame structure on a foundation of



OHIO STATE BUILDING.

are doing quite well. Peas also have yielded quite satisfactorily, but even these crops would have done better, I am sure, if a dose of fresh food had been given them.

The need of excessive manuring is especially apparent with the dwarf forms of each kind of vegetable. Almost all extra early sorts are weak growers, and need high stimulation if anything like the yields of later, stronger-growing kinds are desired. I will mention, as examples, Early Ohio potato; American Wonder pea (as also all extra earlies); Early Ruby tomato; Bartlett onion; Wakefield cabbage; Emerald Gem melon; Cory and other early sweet corns, etc.

While it is thus true that we may obtain fair crops of certain vegetables, especially potatoes, beans, peas, tomatoes, sweet corn, etc., on land that has been heavily manured in previous seasons, without fresh applications of plant-foods, or at least with next to none, it is also certain that we can secure far better yields, and more satisfaction from our operations generally, by new heavy dressings with each crop. The practical results, and consequently the amount of pleasure secured from my garden work in any one year, has always been in direct proportion to the amount of manure applied the same season. I am so fully impressed with this fact, so fully convinced of the folly of trying to raise big crops of garden stuff without big, annual applications of manure, that I now keep horse and wagon hauling manure day after day. I can get old cow manure (mostly clear droppings) from a dairy farm near at thirty cents a load. The horse is strong, the roads are good, no hills to climb, and my boy can take about a ton

five tiers of large logs, some of which are five feet in diameter and 121 feet long, forming a timber exhibit of the state.

It is said that the women of Kansas were very largely the promoters of the Kansas building, and the distinctive features of the exhibits it contains, particularly in the educational line, are due to them.



WASHINGTON STATE BUILDING.

Virginia's building is an exact reproduction of Washington's home at Mount Vernon. It is filled with valuable historical relics of colonial and revolutionary times.

**Now is the time  
TO MAKE MONEY  
Working for this paper.  
Write to-day for terms.**

## Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

### HOW TO START AND GROW SEEDLING GRAPES.

In November or December, or as late as February further north, take a box four or five inches deep and wide and long enough to hold the seeds when planted in rows three inches apart and one half inch or more apart in row, fill to within one inch of the top with rich, sandy loam. Drop the seeds in drills made with the finger or a pencil, to the depth of one half an inch or more. Cover with the same fine, rich soil, then sprinkle until saturated with water, nail the cover on lightly, to keep off fowls, cats, etc., and place the box in some nook on the north side of the house, or in a fence corner where direct sun rays will not strike it, and bring the soil up around the sides even with the top, so that the soil in the box will keep moist and get the effects of freezing during winter. Or the seeds may be planted at once in the place where they are to grow permanently, by simply laying a board or flat stone over them after planting, during winter, to protect from loss by winds or fowls, to be removed at corn-planting time in spring, and protecting, if necessary, with plant-screens until up a few inches.

In spring, if planted in boxes, when oak buds begin to swell, remove the cover and take the box into the house, hotbed, greenhouse, flower-pit or cold-frame; water and treat as for tomato-plants. The seeds will be slow in coming up. The first two leaves, seed leaves, will be heart-shaped or ovate in outline. Be careful to not overwater so as to drown the young plants, but maintain growing moisture and pull out all weeds and diseased or weakly plants.

When the plants are three to five inches high, some moist, cloudy evening in May transplant into rows in good soil in the garden, three or four feet apart, as you would tomato-plants, placing a strong stake by each plant, to which train it until it fruits, when it may be moved, if so desired, to a permanent place in the vineyard.

The vines will, if not males, begin to bear in two to four years, if well cared for, and at six to eight years reach full development and be ready to propagate or throw away. Male vines produce staminate flowers only and never bear, and should be destroyed or grafted as soon as discovered, unless the pollen is wanted for hybridizing or to fertilize flowers of pistillate vines which may stand near, and which will not bear well alone, such as Brighton, Moyer and Lindley. Hermaphrodite vines, or those having pistils with long, erect stamens, such as the Concord and most varieties in cultivation, are self-fertilizing and bear well alone.

Texas.

PROF. T. V. MUNSON.

### REPORT ON THE NEWER STRAWBERRIES.

*Timbrell*.—This is a variety of great merit, and all who have it should increase their stock as fast as possible. That it will be a standard variety there is no doubt. I have watched it carefully, and am glad to report that it has not a single weak point. The plant is a luxuriant grower and enormous-

ly productive. The fruit is very large, nearly always of regular, conical form, crimson color, firm and of very excellent quality, and one of the latest to ripen.

*Beverly*.—This is a fine berry and very satisfactory to both producer and consumer. The plant is healthy and productive, and the fruit is large, fine-looking and of good quality. It is rather late in ripening and bears a long time.









HOME.

Go through the town any evening, and you will be surprised, if you have given the matter any thought, at the number of boys and young men who make a practice of squandering their evenings, to say nothing of the days spent in the same manner. Squandering time is the sin of the age. As a rule, the idle, indolent boy goes to the bad. He may have all the elements necessary to make a first-class business or professional man; but if he is not instructed and encouraged to form habits of industry, he will be a failure, almost inevitably. There is wisdom in the Jewish proverb, "He who brings his son up without a trade, brings him up to be a thief." Prison statistics show that a large proportion of convicts never learned a trade until they learned one in prison.

There is one way this great evil of squandering time can be remedied, if not altogether obviated. Parents must take the matter in hand—must themselves set the example of industry and frugality, and must see that their children imitate the example and that they have something to do. Make the home pleasant and attractive. If the boys love the street or loafing-place better than the home, you may rest assured that the home is lacking in some important particular. Provide the boys with interesting reading matter and useful tools, and encourage them to employ their time in any harmless way that will keep them from idleness and profligacy. When you see a boy or a young man willing to trifle a day, a month, a year in doing the work of a disgusting street loafer, you may set it down that it would not take much to persuade that boy or that young man to become a full-fledged scoundrel.

It is well to teach the boys that no success comes from squandering time, and that the better class of people have about as high a regard for a real industrious thief as for an ignorant, idle loafer. It is in the power of most parents to regulate this matter, and if they will do it, we shall see our army of trifling, loafing young men and boys diminish. Make the home what it should be, and you have done much toward assuring the future of your boys.

But if parents suffer their own minds to grovel continually in sties and stables, and see nothing higher in life than land and money, how can they lead their children on to useful lives, fruitful in noble words and deeds?—*The Common People.*

ANTHROPOLOGY.

Man is held to be the latest creation, unless we except woman. It is orthodox to say that man was the masterpiece, not only the last, but the most perfect product of the creative purpose.

There is one department at the world's fair which relates to man as apart from machines or any invention of mankind. It apparently came near being an afterthought of the exposition management. At any rate, the building was the last to be decided on and the last to be constructed. It is known as the anthropology building. This department has been known, also, as that of archæology and ethnology, and is in charge of Prof. F. W. Putnam, of Harvard college, who is eminent both as a scientist and as a man of affairs.

The big names of Greek derivation should not frighten any person. They simply mean that there is one department, as we have indicated, which relates to man. It goes back to prehistoric times and includes all history, and hence the name, archæology, which is the science of the old or ancient. It covers all tribes or nations of men, and hence the word ethnology, or the science of the races. But the chief point of interest to our readers will be to know that in this department and in this latest completed building are some of the most important and interesting exhibits at the fair. These exhibits are very largely American. They ought to be particularly sought for by visitors from abroad. They are rare, full of instruction, and to the thoughtful will probably be found more fraught with information than any other class of exhibits.

Visitors at the fair cannot afford to pass this building by. It is not far from the agricultural building, which is next to the leather exhibit, which, also, is a building that all should visit.—*Farm, Field and Fireside.*

THE LOST TAIL.

When one passes from the head to the other extremity of the human body, one comes upon a somewhat unexpected but very pronounced characteristic—the relic of the tail, and not only of the tail, but of muscles for wagging it. Everyone who first sees a human skeleton is amazed at this discovery. At the end of the vertebral column, curving faintly outward in suggestive fashion, are three, four and occasionally five vertebrae forming the coccyx, a true rudimentary tail. In the adult this is always concealed beneath the skin, but in the embryo, both in man and ape; at an early stage it is much longer than the limbs. What is decisive as to its true nature, however, is that even in the embryo of man the muscles for wagging it are still found. In the grown-up human being these muscles are represented by bands of fibrous tissue, but cases are known where the actual muscles persist through life.

That a distinct external tail should not be still found in man may seem disappointing to the evolutionist. But the want of a tail argues

more for evolution than its presence would have done. It would have been contrary to the theory of descent had he possessed a longer tail. For all the anthropoids most allied to man have also long since parted with theirs.—*Prof. Henry Drummond, in McClure's Magazine.*

POOR PRESIDENTS.

It is still true, even in these days of great fortunes undreamed of when it was founded, that the American presidency may be aspired to by men who are not rich. Our wealthiest presidents have been the first and the last elected—Washington and Cleveland. Washington was one of the wealthiest men in the country in his time.

Adams was worth one hundred thousand dollars at his death. Jefferson was "land poor" and in straits. Madison and Monroe had comfortable estates for those days.

Jackson, according to the *New York Recorder*, was born in abject poverty and never became wealthy. Van Buren was the son of a tavern-keeper, and had a fight with poverty.

Johnson's youth was even more unfortunate than Lincoln's. He was apprenticed to a tailor, barely learned to read in his minority, and was taught to write by his wife after marriage.

Grant was born only moderately poor and never became rich. So of Hayes. Cleveland's youth was one of privation and toil.

Harrison was of good but not wealthy family, and was, up to recent times, a country lawyer in good circumstances. He is but moderately wealthy.

The "aristocracy of wealth" has never made any inroads upon the white house.

THE AUTONOMY OF LABOR.

The fact cannot be too strongly emphasized that every man's labor is his own, and that he can do with it as he pleases. He has a personal right to name his own wages, his own hours, his own duties, and all the other terms under which he is willing to be employed, and if they are satisfactory to the one who hires, an agreement is reached and there is an end of controversy between them. It is a bargain between two competent contracting parties, and it is nobody's business but their own. They are free from the restrictions of any other employer or employee, and are not subject to the control or dictation of any association or organization to which they do not belong, and to which they do not owe any allegiance. The right to discharge and the right to quit must go hand in hand. One cannot well exist without the other, or else the parties are not upon an equality before the law. The wages of labor, as a general rule, should not be fixed by statute, but should be left free to be determined by negotiation or market rates.—*From an address by Senator David B. Hill.*

CLEANLINESS THE FIRST LAW OF HEALTH.

The following words of the late Dr. Richardson should be ever kept in mind: "Cleanliness covers the whole field of sanitary labor. Cleanliness, that is purity of air; cleanliness, that is purity of water; cleanliness in and around the house; cleanliness of persons; cleanliness of dress; cleanliness of food and feeding; cleanliness in work; cleanliness in habits of the individual man and woman; cleanliness of life and conversation; purity of life, temperance, all these are in man's power."

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OUR grandmothers, dressed in their linsey,  
Would kindle a fire in a hole,  
And over it swing a big kettle  
On two forked sticks and a pole.  
With lye they had strained through the ashes,  
And scraps that were lying around,  
They made for our fathers and mothers,  
A soft saponaceous compound.  
But now in great buildings that cover  
More ground than a fortress of old,  
In caldrons of brass and of copper,  
That glisten like silver and gold;  
With oils from the far-away tropics,  
And alkali made from the dew,  
Are mingled the essence of roses  
And lilies and jessamine too.  
The result of this rare combination,  
Is the IVORY SOAP of to-day,  
To-morrow, next week, and thereafter,  
Forever and ever and aye.

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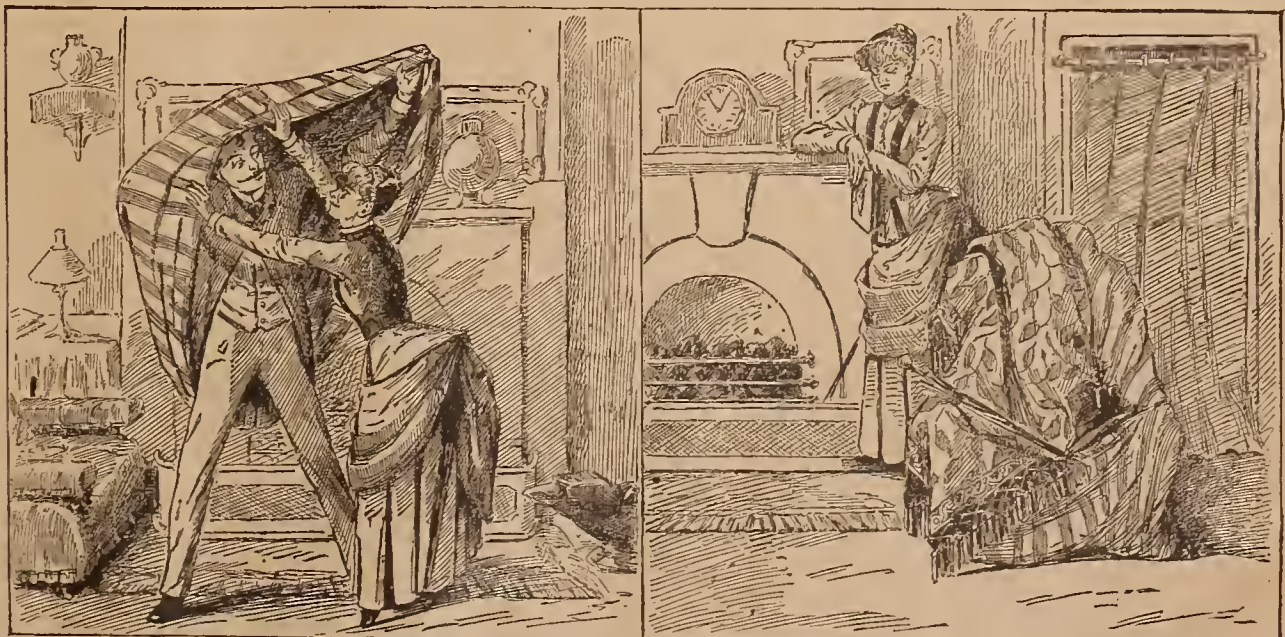
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HOW MR. CHINNYWICK SAW A GHOST.  
(In 6 chapters, complete in this issue.)



Angelina (whose father has forbidden Charles to visit his daughter)—"Oh, Charley, there is pa! What shall we do? Here, this chair-cover, quick!"

Tableau of innocence when the old gentleman enters room. Charles, seated on the coal-scuttle, resembles an easy-chair.

(See next 2 numbers on page 18.)

Our Household

LOVE LIGHTENS LABOR.

A good wife rose from her bed one morn  
And thought with a nervous dread  
Of the piles of clothes to be washed, and more  
Than a dozen mouths to be fed.  
There were meals to be got for the men in the  
field,  
And the children to fix away  
To school, and the milk to be skimmed and  
churned;  
And all to be done that day  
It had rained in the night, and all the wood  
Was wet as it could be,  
And there were puddings and pies to bake  
And a loaf of cake for tea.  
The day was hot, and her aching head  
Throbb'd wearily as she said,  
"If maidens but knew what good wives know,  
They would be in no hurry to wed."  
"Jennie, what do you think I told Ben.  
Brown?"  
Called the farmer from the well;  
And a flush crept up on his bronzed brow,  
And his eye half bashfully fell:  
"It was this," he said, and coming near,  
He smiled, and stooping down,  
Kissed her cheek, "'twas this, that you were  
the best  
And dearest wife in town."  
The farmer went back to the field, and the wife,  
In a smiling and absent way,  
Sang snatches of tender little songs  
She'd not sung for many a day.  
And the pain in her head was gone, and the  
clothes  
Were white as foam of the sea,  
Her bread was light, and her butter was sweet  
And golden as it could be.  
"Just think," the children all called in a  
breath,  
"Tom Wood has run off to sea!  
He wouldn't, I know, if he only had  
As happy a home as we."  
The night came down, and the good wife  
smiled  
To herself, as she softly said,  
"Tis sweet to labor for those we love—  
'Tis not strange that maids will wed."

DOLL'S PAVILION.

**A** DOLL's house—not Ibsen's, but one infinitely more attractive to the average little girl—may be easily and quickly made at home after the following method. Before beginning it, however, it would be well to study the diagrams until the directions are thoroughly understood.

Cut four hexagons, measuring six inches on each side, for the foundation. Reverse one of them for the floor, and cut each of the others exactly through the center. Strong cardboard or thin wood may be used. Cover each of the six half hexagons with dark green cloth, glue them together to form the terrace, and then fasten them firmly to the hexagon that makes the floor.



FIG. 2.

Next make the framework as shown in Fig. 1. For this use small, wooden laths. Cut six upright posts, measuring fifteen inches in height, and twelve horizontal pieces (six for the top and six for the bottom), measuring six inches in length. Fasten these firmly together with small, brass tacks, and from the under side of the floor drive tacks upward into the framework to fasten them securely together.

Only three of the sides are to be covered in; the back is all left open to show the inside of the house. The three walls in

front are made of cardboard, covered on the inside with pretty tinted paper. Before fastening them to the framework, draw the windows with a pencil, and with a sharp penknife and scissors cut them out in kind of lattice pattern. Paint the walls on the outside pale gray, or in imitation of bricks. The door in the center wall is not movable, being only a painted one. Paint it brown, leaving pale gray lines to indicate the panels and fanlight. Cover the framework of the house with brown paper wound around spirally, then neatly glue the three walls in their places.

For the roof, cut six sections of cardboard, each measuring seven inches at the bottom and gradually sloping to a point at the top. Line these sections with tinted paper (or they may be painted if preferred) and cover them with the petals of fir cones glued on in rows. Join the sections together, and over each join place a small, wooden rod that has been gilded. These rods should project half an inch beyond the roof, and to the end of each suspend a small, gilded cone. The top sits down cap-like over the frame of the house, and should protrude over it about an inch. The bottom of the outer walls is also ornamented with the petals of fir cones up as high as the window-sills, and two rows of them go up the sides of the door and around the top of it.

Small, gilt rods eight inches long are placed all around the bottom of the house (over the cone petals in front and across space in the back), and are fastened to each other and to the upright posts with fine, brass wire. Four little wooden rods of graduated lengths are painted stone color and glued to the terrace, to represent steps leading up to the door.

The house may be furnished with any pretty toy furniture. White curtains should be hung at the windows and tied back with bright ribbons. Java canvas will make a pretty carpet, and there will be room on the walls for a small picture and also for two or three tiny brackets.

The measurements I have given only make a small house, but it could be made larger if desired. In making this little pavilion, great care should be taken to fasten it together as strongly as possible; otherwise it will give very poor satisfaction.

Mrs. S. H. SNIDER.

DRESSES.

In the illustration we give of a lady's dress, the very simplicity of the style is its greatest charm. The most of any dress at this time is in the style of the waist and sleeves. The sleeves being more bouffant than ever and the waists full also, it characterizes the style very much. The lacing effect in front can be permanent or not, as you please.

The girls' dresses are very comfortable and effective, and will answer nicely for early fall school-dresses.

Skirts for small girls are much shorter, while larger girls of all ages now wear them rather long.

Kilt skirts for a short girl are very pretty, and with a jacket and blouse form a comfortable dress.

The dress with the revers of white upon a dark cloth is trimmed with white braid on the sleeves and down the front of the waist.

CORRESPONDING WITH HERSELF.

Kate Fields Washington says that Mrs. Noble, the wife of the secretary of the interior, has a way of writing postal-cards to herself one day, as reminders of special duties to which she needs to give attention on the next. She employs for this purpose abbreviated memoranda intelligible only to herself. Whenever invitations are issued for an entertainment at the Noble residence, Mrs. Noble pursues this same plan, and sends herself a postal, as by its prompt receipt she can determine whether or not her invitations have been promptly mailed instead of reposing in the oblivion of the messenger's pocket.

The biggest cash commissions ever given by any paper are now given to club raisers for this paper. Write at once for "Special Cash Terms to Club Raisers."

WHAT WE SPENT AT THE FAIR.

Jane and I started with the intention of being economical, but not penurious. We lived in different towns, but it happened that when we met in Chicago we had spent respectively \$12 and \$12.50 for traveling expenses.

Nobody can describe the expectancy with which one goes to the fair for the first time. We made our entrance at the east end of the Midway. We had been saying Midway Plaisance before we arrived, but in Chicago the hasty inhabitants abbreviate everything. We at once adopted the habit. We passed the place of the forty beauties (some one had told us it was a sell) and the Irish village without being enticed at either place to pay the quarter entrance fee. We walked joyfully past the woman's building, and as it was directly in our path, we went into California. Here were canned fruits in profusion, and of monstrous sizes. There was a small apartment set off in honor of California's artists and authors, where Bret Harte, Joachin Miller and others had their portraits done in pyrography, and their books bound in velvet on a shelf. We glanced at these, but our gaze was riveted to an enor-



LADY'S DRESS.

mous knight on a huge charger, done in prunes. Every man, woman and child will remember that prune knight. We were invited to ascend to the roof, where we were expected to buy a bottle of wine, but we declined; that was a place for economy.

The palace of fine arts being in easy walking distance we strolled through, not stopping to buy a catalogue and conscientiously study the pictures, but merely indulging in a pleasurable glance. This first day was to be devoted to an unfatiguing general survey, so after an hour with the paintings and sculpture we went out and took the elevated railway. This is complained of by some persons, that "it begins no place and goes nowhere," but quite the contrary is the case. It is called the "untramural," because it is "in the walls" of the fair-ground; but instead of surrounding the entire place it does not go along the lake front, before the government building, the liberal arts building nor the colonnade. The very best one can do is to take the train at the "loop," which is near the fisheries building, and ride around (it goes north, west, south, then east to the loop at the other end, near the convent of Rabida, or vice versa, as your

convenience may dictate.) The fare is ten cents, and one certainly gets a satisfactory dime's worth of rest, sight-seeing and economy of time. Having arrived at the south loop we walked out on the pier, where is the movable sidewalk. This is a fine, jolly place, like a huge merry-ground. For five cents you can ride as long as you please, or till the sidewalk stops, which seems to be a hint from the manager that riders would better vacate their places. It is not tiresome to walk across

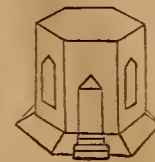


FIG. 1.

the colonnade, because one is so excited by the beauty of the lake on one side and the dazzling magnificence of the architecture on the other. We wished to take a ride out on the water, but from the pier could not do so without paying our entrance fee to the grounds on our return, an extravagance not to be thought of.

In the liberal arts building are several cafes. They are not very stylish, because one must sit on a stool at a counter. We ordered lunch from the menu card, and as the price of everything was plainly set down, we kept within our means. The afternoon was employed looking at the exhibits till three o'clock, when we sat on the lake front and listened to a concert given by the Cincinnati band, from the pavilion just before the middle of the liberal arts building. At five o'clock we took a steam launch in the "basin." This was a great treat, and cost only a quarter. We sailed past the statue of liberty, through the colonnade, far out in the lake, around the pier with its movable sidewalk, around by *la Rabida*, into the south pond, out into the lake again, up north to the naval pier, past the war-ship, then returned to our starting-point. Another lunch on stools at a counter, a little more looking at exhibits, and we were tired enough to think of home; home in this case meaning a hotel where we each paid a dollar a day to be lodged. But on the way we found the sweetest haven of rest, a beautiful house, a veritable Holland home, where could be bought a cup of cocoa. The exterior was attractive, but the interior more than realized expectations. The floors were hardwood, exquisitely polished; the walls were wainscoted with blue and white tiles; the fireplace was lined with the same. The woodwork was carved; there were carved racks holding plaques on the wall; there were porcelain pictures handsomely framed. From the windows we could see the blue waters of Lake Michigan. A pretty girl with costume Hollandish came and gave us a cup of cocoa and two delicious wafers. Benediction on the sellers of cocoa. Anywhere a glass of beer could be bought for five cents, but only the good cocoa men gave a better bargain.

We took the "L" (Chicago abbreviation for elevated railroad) and counted up our expenses for the first day—\$2.10. This was our average individual spending, and did not include lodging. You may peep into my note-book:

"Secoud day—Started at 9 A. M. for the Midway. Went into Chinese theater, 25 cents; Ferris wheel, 50 cents; streets of Cairo, 15 cents; *dans de ventre*, 25 cents; Nubian dances, 10 cents (not worth even a dime); ice-cream and coffee in Turkish cafe (poor stuff); Libbey glass-works, 10 cents. Awfully tired, hungry, cross, miserable. Went on 'L' to fisheries and liberal arts; a square meal, 50 cents; Jane went to art palace; I sat still; chocolate; home. Spent \$2.80.

"Saturday, third day—Began to study the art gallery. Spent \$2.90."

You can plainly see that keeping accounts began to be a bore, so, to tell you the whole truth as to what we spent, you must depend on generalities and a final grand total.

In Jane's note-book was this entry: "Playing the fool, 50 cents." You might think she had done something very silly, but it was this: One morning at the place to buy tickets she laid down a dollar; the crowd was unusually great, and a policeman was calling out, "Have your money ready! Move on! Move on!" Jane snatched her ticket and "moved on" without waiting to take up her half dollar change. She looked back longingly as soon as she remembered her mistake, but the crowd was as great as ever; we had passed the turn-stile; there was no retrieve. The same entry might have been in my note-book, for by a sudden tossing off of clothes at the end of a hot day a miserable cold developed, which made necessary a



doctor's bill of a dollar. Moral, put a little medicine in your trunk. Handkerchiefs had to be washed—nine of them—75 cents.

Well, where did the money go? We each bought a package of tea in Ceylon because it had such a pretty picture of an elephant in a yellow landscape. Jane bought a souvenir ring, and I a china cup. We saw Buffalo Bill's wild west, we rode in a gondola, and did the Irish village. We had to pay dearly for having our valises taken to the railroad station, and at the end of thirteen days, all items included and our return home secured, we had spent \$52. That was \$4 a day. Do better if you can. KATE KAUFFMAN.

"IF."

Twixt what thou art and what thou wouldst be, let

No "if" arise on which to lay the blame. Man makes a mountain of that puny word! But like a blade of grass before the scythe It falls and withers, when a human will Stirred by creative force, sweeps tow'rd its aim.

Thou wilt be what thou couldst be. Circumstance

Is but the toy of genius. When a soul Burns with a God-like purpose to achieve, All obstacles between it and its goal Must vanish as the dew before the sun.

"If" is the motto of the dilettant And idle dreamer; 'tis the poor excuse Of mediocrity. The truly great Know not the word, or know it but to scorn; Else had Joan of Arc a peasant died, Uncrowned by glory and by men unsung.

—Ella Wheeler Wilcox, in Californian.

HINTS AND HELPS FOR HOUSEKEEPERS.

Don't say, dear readers of FARM AND FIRESIDE, "Does Hope Holiday think we don't know anything about preserving?" Far from it; it is because you know so much, and want to be the very best housekeepers in every way, each and all of you, that Hope Holiday would like to give you the crystallized experience of many years. Again and again have printed recipes failed me in my younger days, until in despair I discarded the cook-books and wrote one for myself, from my good mother's experience. Some of these very recipes she tried and made them what they are now. I give you her experimental wisdom, and you need not buy your culinary knowledge as dear as we did. Again I promise that these recipes, if carefully followed, insure success.

Now is the time for watermelon rind to prove itself valuable. You have had the worth of the melon in your enjoyed dessert, and the rind is clear gain. Cut it to suit your fancy, in squares, circles, leaves or strips; weigh it, use your porcelain kettle and cover the fruit with cold water; let it boil slowly until tender, not soft, lay it out on plates, make a syrup of half a pound of sugar to each pound of fruit, and one pint of water to each two pounds of sugar. Boil and skim free of all scum. Flavor with scraped green ginger-root and sliced lemon to taste. A small piece of alum keeps it firm, but I do not use it. Put the fruit into the syrup and boil until clear.

Citron is done in the same way, except that the fruit is allowed to remain, after cutting it as you want it, in cold water with a small pinch of alum, all night. These must be kept in self-sealing jars.

SPICED WATERMELON RIND.—Prepare the rind as for preserving; put over the fire in cold water and boil until very tender; lay out on plates. Of course, you weigh the fruit before boiling. Make your syrup of one pint of vinegar and four pounds of sugar; this is sufficient for seven pounds of fruit. Take one tablespoonful of ground cinnamon, allspice, cloves and mace; tie the spice in three or four small bags made of thin mull; boil the vinegar and sugar and spices together, skim and put in the fruit and boil a few minutes—five is sufficient if the fruit is soft; if not, longer, but not long enough to break. Put all out in a stone jar and let it stand all night; in the morning pour off the syrup and boil it to just enough to cover the fruit; pour over the fruit and tie up. Keep in stone and let the bags of spice remain in it. This recipe will do for spiced pears and peaches. Pare both. We halve our peaches, and spice only small pears, leaving them whole. Don't select them so green that they are bitter. Peaches should be nearly ripe.

CANNED PEACHES.—Select the best; cut up the specked and use for marmalade. Pare very thin and neatly and drop at once into cold water to keep them white. Prepare only four pounds of peaches at once,

else the syrup will be too dark. Dissolve and boil one pound of sugar and half a pint of water, skim and drop in the peaches, boil until tender; have your jars heated, and by putting a silver tablespoon in the jar before filling, they will not crack; lay the halves in neatly, outside up, and when full pour in syrup to top, draw out spoon, seal quickly after carefully wiping the edge dry. Pears are to be done in the same way.

YELLOW TOMATO PRESERVES.—These make a delicious preserve. The large, round are the best, but are difficult to find in our market. You can use the small, oval variety, and they are very good. Scald, skin and take out all the seeds. I wash mine to insure this. Take, for seven pounds of fruit, five pounds of sugar; use the rind of two oranges; cut it small; take the juice of six and put orange-juice, sugar and tomatoes together on the back of the range, stir until sugar is melted, bring to the front of the fire, and after it begins to thicken, stir continually; when the fruit is clear and the juice has thickened sufficiently, take from the fire and put at once, while boiling hot, into self-sealing pint jars—glass always.

GAMES.

A good memory drill, a good educator, and a pleasant pastime may all be secured in trying the following game:

Some one gives a quotation, for instance: "Those friends thou hast and their adoption tried, grapple them to thy soul with hoops of steel." The last word of the quotation is steel, its initial letter being S. Immediately some one else of the company, any one who thinks first, gives another quotation beginning with S. For instance: "Singing she wrought, and her merry glee the mock-bird echoed from the tree." Then some one else who thinks quickly might add: "To thine own self be true," etc. To make the game instructive each one who gives a quotation should tell from where it comes, or at least give its author. It is easily seen that the new quotation must always be begun with the initial letter of the last word in the preceding.

Another very exciting and mind-stimulating game is "Buzz." The company form a circle and count rapidly. Now, any number which is divisible by seven must not be called seven, fourteen or twenty-one, but must be announced as "Buzz."



GIRLS' DRESSES.

BRANDIED PEACHES.—Always use white clingstone peaches for brauding. Rub the fuzz off as clean as possible with a crash towel. Make a strong solution of one tablespoonful of carbonate of soda to a quart of water (many people prefer lye made from wood ashes), and when boiling, drop in the peaches; let them remain in one minute, or until heated, take out and rub off the skin with a crash towel and drop in cold water. Of course, you have weighed them first. To four pounds of peaches allow four pounds of sugar and one pint of the best white brandy. Make the syrup of the sugar, adding just enough water to moisten and start the melting; when this boils, skim carefully, then put in fruit, boil till tender, then drop into the jars; boil the syrup until it is rich and has thickened, then add the brandy, and while boiling, put over the fruit. If any juice has oozed from the peaches, pour this into the boiling syrup while still in the kettle. Keep the peaches over the range where they will be hot while the syrup boils. Seal as soon as you fill the jar.

HOPE HOLIDAY.

EMPLOYMENT for all, and big pay, too. Write to-day to the publishers of this journal for special cash terms to agents.

We count one, two, three, four, five, six, "buzz." If the one to whom "buzz" comes is so unlucky as to say the number instead, he is "out," and it is surprising to see how quickly a whole bright company may be "buzzed." To make it more interesting, "buzz" should be given every place seven occurs. Seventeen is not seventeen, but "buzz." To "buzz" out those who seem invincible let sixteen be "buzz," because one and six make seven; let eighteen be "buzz," because one from eight leaves seven. Likewise twenty-five (two and five); twenty-nine (two from nine). The last will soon put the whole company to flight, in spite of its efforts to the contrary.

Another old game is "Bird, fish or beast," and simple as it is, it will dazzle the quickest-witted into hopeless stupidity. The one who is "it" stands in the midst of a circle and at random thrusts his finger at some one, saying "bird," then counting ten as rapidly as he can. If the one designated fails to respond with the name of a bird before ten is counted he is "it." The name of a bird, fish or beast may be called for at the will of the one who demands a name. It is rather amusing to demand a fish and be given a robin, or to demand a bird and have pickerel offered. MARY D. SIBLEY.

INTERESTING FACTS.

Old, loose kid gloves, worn when ironing, will save many callous places on one's hands.

A Boston lady has invented a spoon for measuring medicine, by which a dose can be administered without spilling.

Julian Hawthorne, who is the father of seven children, calls his home at Sag Harbor "The House of Seven Gabblers."

Twenty young women, skilled in the use of the microscope, have been employed by the government as pork inspectors at Kansas City.

Queen Victoria long ago discarded the use of stays. Princess Beatrice, following her mother's example, has discarded the use of corsets.

Miss Florence Nightingale is seventy-two years of age. Her health is very poor, but she still continues to write for the nursing journals.

Miss Mary A. Ball, of Sioux City, Iowa, has been successfully engaged in the insurance business for nearly four years. She employs several assistants.

Miss Constance Smith is the head of the female staff at the post-office saving's bank in London. Subject to the controller, she has command of seven hundred women and girls.

An invention for hospital beds whereby the patient can raise and lower himself without aid, has recently been patented by Mrs. Bailey, wife of the editor of the *Utica Observer*.

It is safe to say that the two widest loved women in New York are Mrs. Cleveland and Mrs. Custer, the widow of the Indian fighter. These two women have the spell o' hearts.

The only ornament ever worn by the widowed Archduchess Stephanie is a locket containing the portrait of her little daughter on the one side and that of her mother, the queen of the Belgians, on the other.

A carafe which has become coated from standing filled with hard water, may be easily cleaned by rinsing in water in which a little muriatic acid has been poured.—*Housekeeper's Weekly*.

If one is inclined to a chilly feeling in the back between the shoulders, baste a piece of all-wool flannel in the upper half of the back of the undershirt. It serves as a lung protector.

An English lady, who died not long since, left money to pay for sprinkling Tower Hill, London, with ashes and gravel, so as to mitigate its slippery condition, for the benefit of heavily-loaded horses.

Notwithstanding the cares of office and the disquietude caused by nihilist plotters, the czar of Russia has kept his interest in and increased the fine collections of birds' eggs and stamps which he began as a boy.

Police matrons are now employed in New York, Boston, Chicago, Philadelphia, New Orleans, and other large cities. The appointment of the matrons has generally been secured by the efforts of women, and in spite of the opposition of the police.

Princess Maria Bibesco lately succeeded in swimming the Hellespont—Dardanelles straits—from the European to the Asiatic shore, and thus ranges her name alongside of those of the classic Leander and the poetic Byron. She is but twenty-four years of age.

The New York cooking-school had one thousand pupils in the year just ended, half of whom were taught free. The school gives instruction in plain cookery to children of working people, and teaches them how to prepare their food in a wholesome way, and how to market advantageously and economically. Instruction in higher cookery is given to those who pay for it.

Mr. and Mrs. W. R. Fish, of Chicago, are in the city in the interest of the *Chicago Daily News Record*, known, until yesterday, as the *Daily News*. Mr. and Mrs. Fish are both connected with the business department of the paper as canvassers, and the lady is so active and successful in her work as to keep her husband "rustling" to keep his record apace with her. Mrs. Fish was formerly Miss Davis, of Mackinaw, Illinois, the daughter of Mr. and Mrs. S. K. Davis, old settlers of that place.—*Bloomington Pantagraph*.

Agents for this paper get a BICGER CASH COMMISSION than is offered by any other paper. Write for special terms.

## Our Household.

### GIRLS OF TO-DAY.

Girls of to-day, give ear!  
Never since time began  
Has come to the race of man  
A year, a day, an hour  
So full of promise and power  
As the time that now is here.

Here at the gates of gold  
You stand in the pride of youth,  
Strong in courage and truth;  
Stirred by a force kept back  
Through centuries long and black,  
Armed with a power three-fold.

—Charlotte Perkins Stetson.

### HOME TOPICS.

**CHEESE-CAKES.**—This name never fails to bring memories of my school-girl days, and of good Mrs. Todd, the Englishwoman with whom I boarded when I first went away from home to attend school. No clear, amber coffee with rich, yellow cream; no buttered toast and stewed tomatoes; no gingerbread; and last but not least, no cheese-cakes have ever been so delicious as hers. But it was a recipe for cheese-cakes that I meant to give. Rub a cupful and a half of cottage cheese through a colander, add the juice and grated peel of a lemon, half a cupful of sugar, a teaspoonful of butter, a quarter teacupful of sweet cream and three beaten eggs. Stir all together until smooth. Line some patty-pans with a good pie-crust, fill them with the mixture and bake half an hour. If preferred, it may be baked in one crust as a pie.

**WASHING DISHES.**—Nearly every woman will agree with me that dish-washing is one of the most unpleasant duties of house-keeping. As I heard a young girl say not long ago, "If you could wash the dishes in the morning and have it done for the day, it wouldn't be so bad, but you know every time you do it that in a few hours it will all have to be done over again." A few years ago I read of a plan which I think is a good one, and it saves putting the hands in the water very much. The lady who wrote about it said she made several brushes of broom-corn and used them. As I had no broom-corn and did not know where to get any, I bought a good-sized whisk-broom, took it apart and made three brushes of different sizes, tying them firmly with twine and wire and sewing them as the whisk was made. The smallest one I left round, as that shape is most convenient for cups, cream-pitchers, etc.

In washing dishes, use two dish-pans and a large tray. In one pan have hot water, with a teaspoonful of pearline dissolved in it, in the other clear, hot water, and on the tray spread a thick towel. When clearing the table, scrape all the refuse from the dishes. Then wash the glassware first, using a brush; dip each piece in the clear water and turn on the tray. When these are washed, wipe them and put away. Next wash and wipe the silver in the same way,



INITIALS FOR MARKING HOUSEHOLD ARTICLES.

and then wash each piece of china, dip it in the clear, hot water and turn it upside down on the tray. They will need very little, if any, wiping. You will hardly need to use a dish-cloth for anything, and the cup towels will be scarcely damp when you are through, except the one on the tray. After the dishes are washed, rinse the brushes in hot suds and hang them outdoors to dry; wash out the towel that was on the tray and all is done.

**IVY POISONING.**—September and October are charming months in the country, and walks in the woods are so inviting; but care must be taken to shun the poisonous vine or shrub whose touch may cause much suffering. Don't think that you are safe because you have never been poisoned, for although I have hundreds of time hauled

this vine with no bad results, I am just now recovering from a bad case of poisoning, and can speak from a very disagreeable experience. The poison-ivy, or poison-oak, as it is sometimes called, may be distinguished from the Virginia-creeper or American ivy, by the former having only three leaflets, while the latter has five. Another member of the same family is the poison-sumach, or poison-elder. This is a shrub growing in swamps mostly and from six to eighteen feet high. It resembles the common sumach, but the branches and stalks are smooth, or nearly so; the leaflets are seven to thirteen. It is wise to avoid handling any of this family if you are not sure of the species. It is also wise to avoid touching the face with the hands and to wash both face and hands with strong soap-

suds, putting in a little ammonia if you have it, whenever you have been in the woods.

If, in spite of precautions, you discover signs of poisoning, which appear in stinging, itching, red spots, with small water-blisters, apply lime-water or ammonia-water, and avoid rubbing or scratching the affected part or it will spread. Lime-water is made by putting half a pint of newly-slaked lime into a quart jar and filling it up with water. Stir it up well, and as soon as it settles, pour off the clear liquid for use and fill the jar with water again.

MAIDA McL.

In men, whom men denounce as ill,  
I see so much of goodness still,  
In men, whom men pronounce divine,  
I see so much of sin and blot,  
I hesitate to draw the line  
Between the two, where God has not.  
—Joaquin Miller.

### THE INDIA SHAWL.

We have read a good deal lately about the return of the costly India shawl to favor, and no doubt it will follow in the wake of crinoline. Indeed, it is a regal envelopment for a matron or a middle-aged lady, when carefully adjusted to fill the exactions of the true Parisian, whose one idea of a shawl is that it must "caress" the figure. The taste which directs a lady to select a shawl of real excellence and beauty is the taste of education. Weight, color and soft-

ness are equally to be considered, the most beautiful of all being those which contain a large proportion of turquoise blue in their coloring.—*New York Evening World.*

### UNDERWEAR—INITIALS.

The comfortable adjustment of the neck in the newer style of chemise will recommend itself to everyone. Being a little higher in the back, they are more protective to the dress lining.

The initials given in this number can be used for all household marking purposes.

**DON'T RUN THE RISK** of your Cold getting well of itself—you may thereby drift into a condition favorable to the development of some latent tendency, which may give you years of trouble. Better cure your Cold at once with the help of Dr. D. Jayne's Expectorant, a good healing medicine for all Coughs, Sore Lungs and Throats.

### FOR "SICK HEADACHES."

In a practical talk on "sick headaches," a doctor says that there are three things which must be attended to in order to relieve the pain.

The light in the room must be darkened so that the eyes, which are so sensitive during an attack of "sick headaches," will be relieved from any strain. The temperature must be kept even, although the patient may prefer a lower one than is ordinarily comfortable.

The hands and feet are usually cold, at least during a part of an attack of "sick headache." When this period prevails, a hot mustard foot-bath, soaking the hands in hot water and putting a warm piece of flannel about the body is often of inestimable service in lessening the pain and in

whole, the roasts are the best, and the whole mutton may be roasted. It needs a very hot fire and at least four hours for roasting, for mutton underdone is "sheepy." In serving potatoes with the roast, it is a nice way to boil them until fairly done (not until they cook in pieces), then put them into the pan with the roast, until they become brown with the gravy. A good way to utilize stale bread is to soak it in milk until soft, then add salt and pepper and put with the roast until brown. If gravy and potatoes are left from dinner, put them together and warm them for supper.

M. D. S.

### THE SWEET-PEA BED.

Some one has said, "Where there are beautiful flowers there will be beautiful

INITIALS FOR MARKING HOUSEHOLD ARTICLES.

shortening the duration of the attack. While employing these measures, a mustard leaf—such as your druggist sells in little tin boxes—applied to the back of the neck, will be found to be a valuable accessory.

Persons who suffer habitually "sick headaches" can nearly always predict the advent of an attack, and if they can, an emetic of hot water followed by a laxative dose of salts or magnesia might save the pain they otherwise may suffer. It is, as a matter of routine domestic treatment, a good plan to wash out the stomach in the beginning of the attack, even when it has not been anticipated. This may be done without much discomfort by swallowing sufficient lukewarm water to give the stomach a feeling of tension. The rejection of this clears the stomach of mucus and irritants which might tend to aggravate the complaint.

### RECIPES.

**BROWN BREAD.**—I sat down for the milk to sour and to meditate (Samantha Allen would put it that way). The milk wasn't quite sour enough, so I set it on the stove for awhile, and while it was souring I was turning over in my mind the number of loaves those threshers, who seem to be, verily, hollow, would consume. Maybe some of the good sisters who have hollow folks to cook for would like my recipe

thoughts." Surely, flowers do have a refining influence, appealing as they do to the finer senses, doing good to eye and heart and soul. Last spring while making a list of garden seeds needed, we decided that we would include sweet-peas, and include them we did, and with what a wealth of blossoms they repaid us! We planted them in the house, early in April, but the ground outside did not admit of transplanting until the latter part of May. They were set in a trench running north and south, so that they might get both morning and afternoon sun.

A trellis was made of four wires for their support. They proved themselves sturdy climbers, and soon began reaching for the top wire, which was about four and one half feet from the bottom. Our first blossoms were cut about the twentieth of June.

Only three blossoms! But what a transformation came over them, for in less than two weeks the whole row (about twenty feet) was a mass of beautiful bloom. We cut them every morning, and the dinner was never complete without a jar of sweet-peas. What admiration they solicited, and I think every member of the family grew to have a real love for the favorites, for they won their way among us as would lovely children.

As much as we enjoyed them, a greater enjoyment came from the daily custom of sending a bunch to some one, either sick or well. In July the hot, dry weather came, and there were signs of yellow leaves at the base. A good, thorough mulching and liberal watering saved them and still gave us blossoms without stint, and so it continued to do until Jack Frost came with his chilling breath, conquering the beauties and causing them to droop their lovely heads, and making us vow vengeance, by deciding that each year the sweet-pea bed might have a place in the garden, and prove the old maxim that "a thing of beauty is a joy forever." M. D. S.

A little camphor placed on every window-sill will keep out flies, except in the kitchen, where the temptation is stronger and the remedy of necessity a little more stringent. But a little camphor sprinkled on the cook-stove now and again will drive out the pests and keep them out, while it will also neutralize the unpleasant odor of cooking.

Sponge carpets occasionally with hot water in which either common salt or powdered alum has been dissolved. This not only brightens the carpet, but prevents moths.

**WOMEN** Who want light and easy work, either all the time or spare hours, can earn big pay working for us. No other publishers pay as big cash commission. The business is genteel, and promotes good health, besides filling your purse. Write to-day for full particulars. Address FARM AND FIRESIDE, Philadelphia, Pa., or Springfield, Ohio.

**WOMAN'S WORK.**

It is a very old saying that

Man's work is from sun to sun,  
But a woman's work is never done.

Why? A question that millions might attempt to answer, and no two would agree. There are so many ways of keeping house: The strictly methodical, where everything has to be done to a minute, regardless of convenience, comfort or tired feet; the spasmodic, where one will scrub and clean and bake, wash and iron, too, perhaps, in one day. Result, a worn-out woman for a week, and everything at sixes and sevens in the meantime; and so on ad infinitum—a way of doing things for every individual housekeeper.

Try and bear one thing in mind above all others: Do not do more in one day than your strength is equal to, and keep good-natured. Now, I imagine I hear a snicker and a whisper, "A man wrote that!" Beg pardon, ladies, it is an old maid, who has had the opportunity of visiting many homes, and staying long enough to appreciate the happy ones; and those never coincided with the ones whose overseer's temper was soured by continual work and worry; and by the way, those people scarcely ever accomplished as much as the quiet little woman who "makes her head save her heels," keeps cool, does what she can do to-day and leaves to-morrow to take care of itself, with the exception of headwork, that may plan the morrow's campaign while doing the supper dishes.

Through the summer an hour in the morning is worth two in the heat of the day. Try and plan what needs to be done in the baking line, rise early and do it while preparing breakfast. One can work so much faster if they have their mind made up just what to do. It does not take long to make a pie when the fruit is prepared the night before, and while you are making pie-crust, just roll out an extra one and bake, and to-morrow make a lemon custard for filling. How quick cookies can be baked in the morning, if they are ready mixed the night before, with just a little more flour in the morning; and ginger cookies especially are much improved by this method.

If you have bread sponge to set at night, save the potatoes out from dinner that you need, mash them fine, and at night just pour on boiling water, stir thoroughly, and prepare sponge as usual; lots quicker than to fuss and boil potatoes at tea-time, unless you cook them for supper, anyway.

Potatoes should be prepared for breakfast the night before, for the time you would then spend on them would rush the baking amazingly.

I wonder if some one thinks, "What, a day's work for an evening!" Please stop and consider that *all* this does not have to be done every evening. Sometimes it is one or two, sometimes but one of them; and as before stated, plan your work and make your head save your heels, which will save your strength, and that, your health, which will be a guarantee of "sweet temper." One woman will take more steps in setting or clearing a table than others will in half a day's work. Put on the dishes first and together, and half of them will not be apt to be then forgotten. If you have to go to the cellar, and no slide cupboard conveniences, take a basket or server, and one trip may bring everything from there, as well as half a dozen, when things are brought up singly. Try it, sisters. Actually, I have seen people go the length of dining-room, kitchen and pantry to put away half a slice of bread that was forgotten to be taken with the bread-plate; also, the same person would travel to the kitchen sink with a knife, one glass, or an individual butter-plate. How silly!

In clearing a table, put away victuals first, of course, and take just as many as you can safely carry at one time, selecting such as go to the same cupboard to take together. Here the server or basket comes into useful service again. Pick up the glasses, and then the silver, and please don't put the forks in a pile with spoons and knives, to scratch and mar them. Scrape all the scraps from the plates into chicken or cat dish, and you can take all the plates in a pile as easy as one mussy one to be cleaned in the sink. It is not half so hard to wash dishes when they are all sorted, piled neatly and scraped clean.

On wash-days, if there is no threatening rain, it is so much easier and quicker to fold the clothes as you take them from the line, and having a pail of water handy, sprinkle them as they are laid in the bas-

ket. They iron much easier than when thrown in helter-skelter, and thus becoming so badly wrinkled.

After ironing, hang all the clothes that need mending or a button sewed on, upon the same line or bar, and then none will be forgotten, and John come tearing downstairs some morning to have a button sewed on, when your hands are in the dough. Don't let the mending go from week to week if it can possibly be avoided; a pile of ragged clothes is so discouraging. Do it as soon as possible after ironing; it's such a relief to the mind, for I guess every woman hates to patch and darn.

One item of woman's work should *never* be forgotten, if it is within the bounds of possibility, and that is, a smooth head and a clean dress for the afternoon. It will rest and refresh yourself, please "hubby" and keep your children's affections. You may smile at the last clause as a new idea;



NEW STYLE UNDERWEAR.

but I tell you, mothers, just as sure as the way to a man's heart is through his stomach, just so sure is the way to a child's heart through its eye for "pretty things," and if you can just keep that child thinking that mama is always "so slick" and "so sweet," you have taken a great long step in controlling and guiding him; for a child may be ruled through his affections much easier than by "you must," and "you shall." And one that can bring a school-mate home with him and be sure of finding a neatly-dressed little mother, may be justly proud of her, and will jump for a pail of water or an armful of wood much quicker than if met by a tously head and soiled garments. GYPSY.

**SOME TOMATO RECIPES.**

**GREEN TOMATO PICKLES.**—Take green tomatoes, cut in slices, and put in salt-water over night. Let them drain from this, and to every eight pounds of tomatoes take one quart of vinegar, two pounds of sugar, one tablespoonful of allspice, two of cinnamon, one half of cloves, half teaspoonful of pepper. Tie the spices separately in a cloth, and put in the pickles. Pour the vinegar on them boiling hot. Boil the sugar in the vinegar. Pour vinegar off, and heat over for three mornings, and pour on the tomatoes, when they will be ready for use.

Another recipe is just like this, only leaving the tomatoes whole, and after soaking in salt and water, boil in vinegar until a straw will go through them; then place in jars, and pour the boiling vinegar, sweetened and spiced, over them. Will be ready for use the next day.

**TOMATO MANGOES.**—Take large-sized tomatoes, when full size, but before they have begun to turn. Cut a slice off the stem end for a cover, and hollow out the inside part, leaving only a shell. Soak in salt and water and fill with the following: One head of cabbage, a half dozen large, green peppers, a tablespoonful of mustard seed and salt, and if liked, a few chopped onions and celery stalks, or celery seed. Chop cabbage and drain it over night; then chop peppers, onions and celery. Mix with cabbage and mustard seed and salt to taste. Fill the tomatoes, tie on the tops and pack in a jar, covering with cider

vinegar. A few slices of horse-radish root keep the vinegar from turning white.

**PICCALILLI.**—Chop green tomatoes and cabbage, equal parts, and hang in muslin flour-sacks to drain over night. To each gallon of this add four or five green peppers, chopped, one small red pepper, a handful of mustard seed, a tablespoonful of cloves (whole), a tablespoonful of whole pepper, a handful of chopped horse-radish and a large tablespoonful of salt. Pack in a jar and pour cider vinegar on until covered. Weight down with a plate, and tie a cloth over the top, and keep in a cool place. We put ours in the cellar, and it keeps until it is used up. Could never get enough made to see whether it would ever spoil or not. Generally nine or ten gallons made so much work we got tired and quit.

**CHOPPED TOMATO PICKLES.**—One peck of green tomatoes, chopped, six onions, chopped, one pint of chopped celery, six



NEW STYLE UNDERWEAR.

green peppers, one teacupful of sugar, one half teacupful of salt, a tablespoonful of all-spice, one of mustard seed. Boil in cider vinegar until tomatoes are tender. Use vinegar as needed; one cannot tell just how much it will be, as it cooks away. Put in cans and seal.

**SPICED GRAPES.**—Although grapes are not green tomatoes, they are good pickled, and are always so plentiful. Pick closely-filled bunches, and pick off all faulty ones, and pack closely in jars. To each quart of vinegar needed to cover them add two pounds of sugar, a tablespoonful of cloves and cinnamon bark, and boil and pour over them for three mornings. Keep in a cool place; or, pick grapes off and pack in fruit-jars. Pour the hot spiced vinegar over, and seal. The spiced vinegar is splendid for mince pies in winter. A. M. M.

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## Farm Gleanings.

### CORN FODDER—ITS CARE AND VALUE.

THE FARM AND FIRESIDE does a good work in calling attention to the waste of an immense amount of forage in this country every year, and it truly says that "good, bright corn fodder is excellent food for cattle and horses." I have fed very little hay for many years, preferring the corn fodder on the score both of economy and satisfactory results. The world's crop of hay is short this year, and although I fear that extensive shipments to Europe will not be practicable, yet prices in this country should rule fairly good, and there are tens of thousands of farmers, I dare say, who will continue to feed their hay and let the fodder go to waste, when they could utilize the fodder and sell the hay, thereby netting nearly the entire selling price of the latter.

I find that ten acres of good corn will produce sufficient stover to supply ten horses and milch cows with all the coarse fodder needed from the first of November to the first of May, even when it is fed long, and consequently at least one third of it is wasted, or rather is converted into manure without being eaten by stock. When one makes use of some wheat straw, permitting the horses to eat the chaff and tenderest part of the straw that is used for bedding, one acre of corn fodder will supply a greater amount of forage than one animal will consume. The character of the food is superior to that of ordinary timothy or clover hay, being safer for horses, as it is free from dust and is laxative as well as nutritious.

I have heard extensive corn growers ridicule the advice of some farm writers that stover should be housed in the winter-time, pointing at the time to their hundreds of acres of fodder that would indeed require immense storage-room. But I cannot see why any one, no matter how extensive a corn-producer he may be, should not be able to care for all the forage his stock may need, even if scores of other acres of fodder are left standing in the field, and what I now write is based upon my own experience on a farm that grows only about as many acres of corn as there are heads of horses, colts, cows and other cattle on the farm, and those who usually have a greater number of acres of corn than head of stock are comparatively few.

In order to have good stover one must care for it, and not do as the majority of those do who underrate its possibilities—sadly neglect it. The best fodder is gotten by pretty early cutting of corn, yet I would not advise going to any extreme, as this will cause a loss in weight of the grain. There is a right time to cut corn, just as there is a right time to cut wheat, and for the sake of the fodder the work should not be delayed beyond this. A majority of the ears should have brown husks and be about ripened, but the corn should not stand until all the leaves are dead and becoming bleached. Just as soon as the corn is dry enough to crib, it should be husked out of the shocks, and the fodder tied in bundles. Tarred twine is the best material for the purpose, and the band should be placed a little nearer the butt than the tips of the bundle.

If the weather be dry, the fodder may be left on the ground until it is ready for drawing to the mow or stack, but it is always safer to have three shocks put into one in the field, drawing the tips of the bundles together with common twine or corn stalks, and let the fodder cure thoroughly, as the sap in the stalk is apt to cause heating and mold in the bottom of the mow unless the curing is well done. A few days of windy weather make it ready for drawing in, and then any further exposure is harmful. Even some of those who seem to value corn fodder leave it in the field, drawing it in as needed; but I estimate that winter rains cause a loss of fully one half its value. When mow-room was insufficient for all the fodder I have drawn in all that would be needed from Christmas until spring, and then drawn from the field for use in November and December, but even this degree of neglect I can recommend no more than that of leaving hay in the cock for weeks after it should be in the stack.

Now, it would be easy to say that all fodder should be cut for stock. Theoretically, this appears to be true, and in practice all farmers who have limited supplies of forage find that cutting pays. The fodder goes farther. Some good farmers keep two

horses or cows on one acre of fodder during the entire feeding season, mixing the grain in the cut food. But others, like the writer by careful housing have all the forage needed without cutting, and when they arrange to feed it handily and convert the refuse into manure, the advantages of cutting may not be equal to the expense and trouble. I believe that the prevalent idea that stover is unpleasant to handle, both in the manger and the manure, keeps many from saving it; but the fact is that it need not be troublesome.

If the fodder has been tightly bound into bundles of the proper size, it can be handled with forks easily. Mine is always mowed away like wheat, and in the winter these bundles are thrown down upon the feeding-floor with more ease than an equal amount of hay. The feeding-mangers are so arranged that a bundle can lie lengthwise in the bottom of each one, the bundle containing enough for two horses. As the fodder is bright and dry, the stalks are picked so closely that nothing but the butts remain. As the mangers are double length this refuse is easily gathered up in the hands or arms and removed to a basin just outside the door leading from the feeding-floor. If no refuse is allowed to accumulate in the mangers, this work is not unpleasant in any way, and occupies only a few minutes. In the basin the stalks are tramped and leveled by stock in winter afternoons, and together with the straw that is mixed with them, form a rotten mass by mid-summer, ready for the top-dressing of wheat land.

The advantages of fodder over ordinary hay I find to be many. (1) It is a by-product, costing only the cutting and hauling to the barn. The grain is expected to pay for raising the crop, and the fodder is so much extra gain, while hay is a main product, requiring the use of land for a year. (2) It is free from dust. By feeding fodder only I have practically cured a horse of a bad cough that seriously impaired its value in its younger days when it was kept on hay. Fodder is the only fit coarse food for horses that have heaves or are in any way thick-winded, and all horses would be the better for an escape from the dust that is present in the best of hay, timothy or clover. (3) It is laxative, while timothy hay is binding. There is no richer and more desirable forage than perfect clover hay, yet the fact that hardly one ton in a hundred is perfect, precludes it from comparison with fodder. Most clover hay is too dusty for horses. Fodder gives animals a glossy coat of hair, correcting the effects of winter grain feeding. (4) It is far superior to timothy as a milk-producer. (5) Its manurial value is a considerable item. Prof. Armsby estimates it at \$4.39 per ton.

I cannot expect those farmers who leave the stover standing in the field until spring to agree with my statements concerning its value. Neither do I know of more unpleasant work than the handling and feeding of wet, frozen and half-rotted fodder to stock, and the cleaning up of the refuse in the mangers. Nor is it possible to make fodder go far in the feeding when it is done in an open, muddy lot, much of the feed being put under foot. But I have stated the facts only as I have found them in many years of feeding, and as many others have found them. The average farmer with ten or twenty horses, colts and cows, can provide shed-room for ten or twenty acres of fodder, and thus enable himself to save all the hay for market if he so desires.

Since writing the foregoing an eastern station bulletin has come to hand, in which I find strong corroboration of my estimate of the value of corn fodder. As a result of analyses and feeding experiments the station comes to the following conclusion: "(1) There is more digestible matter contained in the corn fodder from an acre than in the corn ears from one acre. (2) The corn fodder, or stover, from one acre yields as much digestible matter as two tons of timothy hay." It is not claimed that the digestible matter in the fodder is as rich as that in the grain, but it is digestible forage, and like hay, only needing a concentrated grain ration with it to make it perfect.

DAVID.

### GOOD NEWS FOR CLUB RAISERS.

Club raisers for this paper are given larger cash commissions than have ever been offered before, and more liberal than given by any other publication. We wish to interest everyone of our readers in raising clubs, and our new terms are so favorable to the club raiser that it will be an inducement to many to devote all their time to the work. Write at once for "Special Cash Terms to Club Raisers." You will certainly regret it if you do not.

### BUYING A COW.

Among the quarter of a million readers of the FARM AND FIRESIDE are many probably not on farms. A large number of these, perhaps, were brought up on farms, and although they may have gone to the city years ago, yet there remained the love of the farm, and they kept it up—kept alive their interest and remembrance by taking the farmer's family paper. Distinctly agricultural papers are found in the city home where there is not even a garden; where, apparently, there is nothing to suggest agriculture, but their presence is explained by the fact that a member of the family, perhaps, was farm born and bred.

One of the first acquisitions in the line of luxury of the city man is that of a cow. If he was once a farmer, or lived on a farm, he gets to the "cow luxury" sooner than the man who has had no farm experience, for he knows what the cow will do for him and his family; what a helpful factor she will be in his health and prosperity. But even the man who was brought up on the farm, and who remembers the "foaming milk-pails," but who left the farm years ago, may not have sufficient knowledge to buy a cow wisely. Milk is the prime object, but there are other considerations. The cow is a social and domestic animal; she enjoys the company of other cows, and if the city cow be taken from a large herd some time may be required to wean her or win her from the remembrance of the many congenial cow souls (?) she left behind, and to make her content with the society of a man, and therefore, in the selection of a cow—a family cow—this must be taken into consideration; that is, a cow must be chosen that has not a nervous temperament, a cow that has not a long memory, if there be any way of selecting such a cow.

Some persons fume and fret over every little disturbance, everything that is out of the ordinary course, and make themselves and others uncomfortable, if not miserable. Some cows are built the same way—testy, unreasonable, contrary without sufficient cause. I have had experience with such cows. They are not worth bothering with anywhere, much less in the city where there will be some privations.

The city family cow will probably not have unlimited range; she may be tied with a lariat to a stake; she may be forgotten and left too long without water, or tied where she can get no shade, and be subject to a dozen other "irregularities." Now, under such treatment some cows would become of very little value as family cows; they or the owner would be in trouble all the time. Therefore the cow must be selected that will bear all these annoyances with as little friction as possible. It must be borne in mind that the cow, to be the most profitable and satisfactory anywhere, must be in state of absolute rest; she must want nothing, and be subject to nothing that will disturb; when a cow is in this condition she will be all that she can be to her owner.

A late episode, that suggested this article, shows that it pays for the inexperienced to consult authority on cows when a cow is to be bought. A wanted to buy a cow—a family cow—one that could be content with the comforts or discomforts of a city home. Naturally he applied to his milkman. What followed may have little to do with buying cows, but it may be interesting and open some eyes. A had boasted of his milk and his milkman, for both were good in appearance at least. A neatly-dressed man, with a fine horse and wagon, resplendent in new paint, go a great way in recommending the milk he sells. Seeing the milkman occasionally, A had greeted him with, "How's the farm?" or, "I hope you are taking good care of my cow," meaning the cow that produced his milk, and as far as he remembers the replies were satisfactory. But now A wanted to buy a cow, but the milkman had none to sell. A was persistent. "You've brought us rich, yellow milk for several years, and I'd like to get a cow that gives that kind of milk; I'll pay a good price."

But the milkman declined to sell; said he had none to spare, and appeared anxious to escape to his wagon. A was disappointed at the man's indifference to his wants, and a little vexed, perhaps, and exclaimed:

"Where is your farm? I'd like to see your cows, even if I can't buy any of them."

The milkman was cornered, and reluctantly disclosed the fact that he had no farm and no cows.

"No farm and no cows!" returned A. "Where do you get your milk that you sell?"

"Buy it."

"Well, where does the farmer live you buy of?"

"Oh, it comes from different farms," replied the man, now in the wagon and gathering up the reins.

A was aroused, and grasping the horse's bridle demanded, "Where do you buy the milk you bring me? I have a right to know."

"I buy from a wholesale dealer on — street."

"And you never had a farm or cows?"

"No."

"Do you know where the milk comes from?"

"Not exactly."

A thought it was time to have a cow, and proceeded to buy one. He engaged a friend who knew something about cows to go with him to the farm where several cows were to be tied in the barn—driven in from the pasture at a certain time for his selection. They found seven cows in the barn. Now, to the practiced eye of the "cow-man," not one of these cows were suited to the purpose, and it was necessary only to glance at each one to come to this conclusion; a cursory examination in front of the cows. Two were as large as Texan steers, with wide-branching horns, and either could jump a six-rail fence without winking. Going behind the cows each one sheered around to look at the visitors through the stanchion. They were all nervous, high-strung, with too much heel, horn and hoof for domestic cows. When the farmer saw that he could not sell his jumpers he said, "Well, go into the pasture and take anything you want. I'll turn out these and let them go back to pasture;" and back they went like cattle in a stampede on the plains. The herd was lying down in the shade when the runners appeared, but most of them got up and left for other parts of the pasture. No wonder the farmer wanted to sell the seven jumpers and runners; their presence in the herd was a positive and continual injury. But under a tree was a cow that had not been stampeded by the others. A and his friend walked around her, but she paid no attention to them, and kept on chewing the cud. The farmer said, "You don't want that cow; she's the slowest, laziest cow I ever saw. A cannon firecracker won't disturb her."

"That's the kind of a cow you want," said A's friend. She was a good milker, all marks showed it, and she was bought. The farmer was loath to part with her, but he had given his word and kept it. She proved to be as the farmer said—a lazy cow, slow as a snail—but for all that, and in part on that account, an ideal cow, a rich milker, docile as a sheep and contented anywhere.

After the cow came A made another discovery. His cow did not give milk as thick and yellow as that brought by his milkman. The milk was tested and found to be above the average. With the help of competent authority he came to the conclusion that the milk he had bought from the milkman—the man who did not own a farm or a cow, and perhaps never saw either long enough to be acquainted—was "doctored" milk or water, given "body" and coloring matter.

Before a cow is bought in this age of tuberculosis, let a veterinarian examine, and also have the milk tested, for there are cows that give milk, even on grass and a grain ration, that is little more than water, on which an infant would starve. And by all means, for a family cow get a lazy cow.  
GEORGE APPLETON.

### A SILO CONVERT.

Although I am on record as saying that I would not build a silo if I could otherwise protect my corn from the depredations of vermin, yet last winter has made me seriously consider the evil of having to feed my corn to the cows at a temperature far below freezing—so far that a large share of it must be used to keep up the bodily temperature of the animals which consume it, and is therefore so far a total loss. It is true, of course, that the heat in the silo is kept up by the slow combustion of the silage itself, but the conditions of the silo are such that this waste is much less than in the case of unsiloed dry fodder.—Dr. Hoskins.

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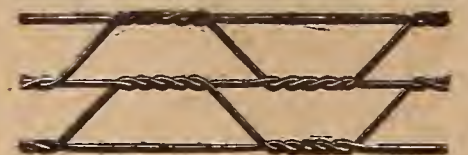
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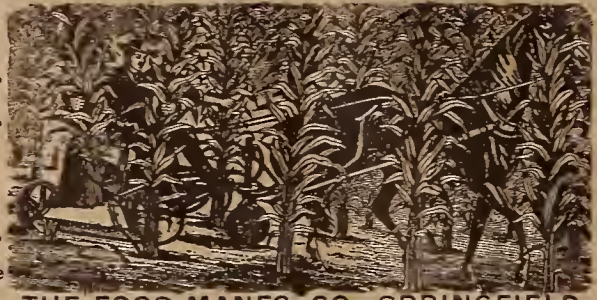
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Tableau No. 2. Love's last adieu.

(See pages 9 and 18.)

O. G.—"Why, my dear, whatever is the matter?" Angelina—"Why, pa, you have just fallen over the easy-chair and upset the scuttle. Did you ever!" O. G.—"Bless me! I thought I had seen a ghost. The last cigar or something must have been a little too strong for my head."

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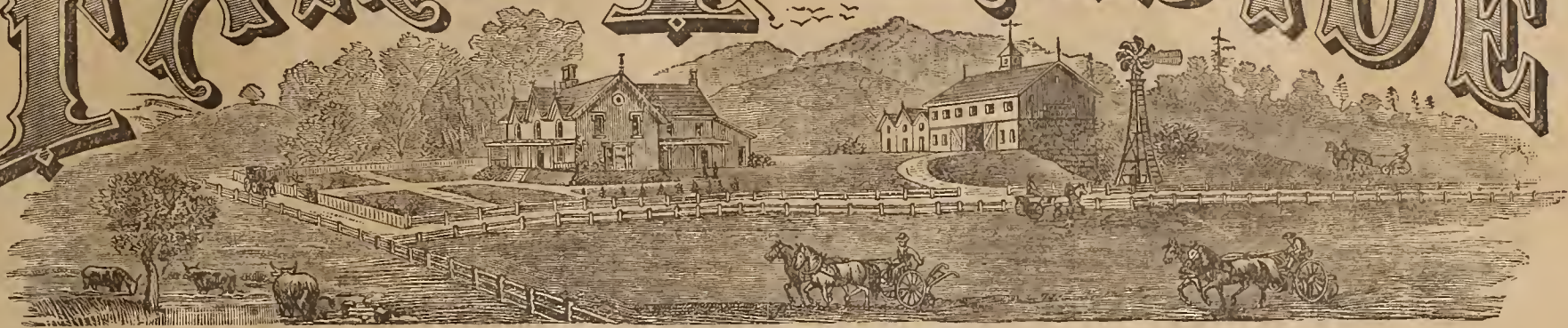
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# FARM AND FIRE RESIDUE



EASTERN EDITION.

VOL. XVI. NO. 24.

SEPTEMBER 15, 1893.

TERMS { 50 CENTS A YEAR.  
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## Do You Want Work?

## Do You Want Money?

WE OFFER BOTH TO  
MEN, WOMEN, BOYS and GIRLS.

The employment is steady.  
The wages are good.

See pages 16, 17, 18 and 19 of this paper.

## Current Comment.

THE Wilson bill, providing for the repeal of such provisions of the act of 1890 as relate to the purchase of silver bullion, passed the house by a majority much larger than expected. For this house bill the senate substituted the bill now under consideration, known as the Voorhees bill. In so far as the stoppage of the purchase of silver bullion is concerned, the two bills are identical in language. The Wilson bill concludes with the following clause: "But this repeal shall not impair or in any manner affect the legal tender quality of the standard silver dollars heretofore coined; and the faith and credit of the United States are hereby pledged to maintain the parity of the standard gold and silver coins of the United States at the present legal ratio, or such other ratio as may be established by law."

The Voorhees, or senate, bill adds to repeal the following declaration: "And it is hereby declared to be the policy of the United States to continue the use of both gold and silver as standard money, and to coin both gold and silver into money of equal intrinsic and exchangeable value, such equality to be secured through international agreement, or by such safeguards of legislation as will insure the maintenance of the parity in value of the coins of the two metals, and the equal power of every dollar at all times in the markets and in the payment of debts; and it is hereby further declared that the efforts of the government should be steadily directed to the establishment of such a safe system of bimetallism as will maintain at all times the equal power of every dollar coined or issued by the United States in the markets and in the payment of debts."

The house bill provides for the use of the silver heretofore purchased or coined and its maintenance at par with gold. In addition to this, the senate bill declares in favor of the government continuing its efforts to establish bimetallism and the further use of silver as money under future legislation.

The passage of a repeal bill by the senate is only a question of time, the length of which depends on how much filibustering by a few senators will be permitted. The senate is liable to waken up any day to the fact that filibustering itself is one of the most serious breaches of senatorial courtesy that can be committed.

A repeal act of Congress will place the United States in a position similar to that of France, the principal nation of the Latin Union. The Latin Union was formed in 1865 for the purpose of maintaining and regulating a uniform interchangeable coinage of gold and silver. But the Latin Union suspended the unlimited coinage of silver fifteen years ago, to avoid being driven to the single silver standard. Al-

though no longer coining silver, the nations composing the Latin Union use both gold and silver as money, maintaining the parity of the coins of the two metals by legal tender acts. France now has in circulation about \$800,000,000 of gold and \$700,000,000 of silver. Practically, France is now a bimetallic nation on a single standard. And as will be seen from the clauses appended to the two bills now pending in Congress, this will be the position of the United States if either bill becomes a law.

WHAT is a "tariff for revenue only?" It is a system of indirect taxes laid for the sole purpose of raising revenue for the uses of the government. It is therefore properly made up of duties on such goods only as are not produced at home. Such duties will be paid without affecting the prices of domestic goods.

A protective tariff, on the other hand, is properly made up of duties on such foreign goods as compete with those produced at home, and by affecting the price of the latter, prevent them from being undersold and crowded out of the markets.

Under a protective tariff, non-competing goods are on the free list; under a revenue tariff, competing goods are on the free list.

These are the definitions given by political economy, but in tariff discussion and in the making of tariff laws they are frequently ignored. For example, the *New York Sun* is now advocating as a tariff for revenue only the laying of a uniform rate of duty on all imports. That is, if our imports amount to \$800,000,000 annually, and the government needs \$200,000,000, the best way to raise this revenue is to place a duty of 25 per cent ad valorem on every article imported.

As a plan for raising revenue this has its merits. It is simple and sure. But strictly, it is not a tariff for revenue only. It is a hybrid. If adopted, home products would be protected by the 25 per cent or 30 per cent duty against competing foreign products. It may be called a revenue tariff with incidental protection, but it is not a tariff for revenue only.

FROM a firm manufacturing butterine we have received the following descriptive circular:

Butterine, or oleomargarine, as it is technically called, has for several years been extensively used in the leading hotels, restaurants and private families of Europe and America, and is so favorably considered that a statement of the method of its manufacture and the materials of which it is composed cannot fail to interest.

Butterine is composed of butter, butter-oil, neutral lard and oleo-oil. Elgin creamery butter and butter made at the factory daily are the milk products used in butterine.

Butter-oil is made by pressing the oil from American cotton-seed. It is a pure, nutritious vegetable oil, which is used in small quantities to soften the texture of butterine.

Neutral lard is pure, chilled leaf lard, cooked at a low temperature, and is then put into a bath of pure, cold water for about forty-eight hours, which removes all flavor, leaving a perfectly neutral material.

Oleo-oil is made from the choicest fat of beef cattle, chilled in ice-water, then melted at a temperature of 140° Fahr. From this is pressed a perfectly soluble oil known as oleo-oil, which is the only beef product used in butterine.

The above-named ingredients, when properly combined, salted and worked the same as butter, form what is known as butterine, which is one of the purest and most wholesome articles of food in general use.

Our factory is always open for public inspection, and you are cordially invited to call and see butterine manufactured.

Assuming that butterine is always what it is here stated to be—a compound of the articles named, all clean and pure—the

claim that it is one of the most wholesome articles of food cannot stand. Pure butter melts at the normal temperature of the stomach, is easily digested, and is a most wholesome food. The half-cooked lard, suet and cotton-seed oil in butterine are difficult of digestion and not wholesome. As food, the best butterine is far inferior to good butter.

Butterine, however, is not always made or compounded as described in this circular. The neutral oils are obtained from the cheapest, not from the cleanest source. Sometimes they trace back to the offal rendering tanks of the country slaughterhouse, to the cholera hog or to the scavenger's collection. The "refining" process may hide the origin, but it does not make a "neutral" wholesome or desirable as food.

Even at its best, butterine, however honest and clean it may be in the factory, turns out an arrant fraud by the time it reaches the consumer. In its travels there is a missing-syllable contest. In the factory butterine is mixed with butter, colored and named to imitate butter, put up in butter packages and advertised with Jersey-cow chromos, in order that it may be palmed off on consumers as genuine butter. Rarely do consumers buy butterine on its merits.

ONE of the falsehoods torn to tatters during the discussion of the repeal bills in Congress is the widely-circulated statement that the passage of the act of 1873 was secured by bribery, and that silver was stealthily and fraudulently demonetized.

In April, 1870, the secretary of the treasury sent to the chairman of the senate finance committee a bill for the revision of all laws relating to coinage. One of the provisions of this bill was the suspension of the coinage of silver dollars. In a report accompanying the bill, prepared by the deputy comptroller of the currency, the reason given for this provision was that the silver dollar had long ceased to be a coin of circulation because its bullion value exceeded its nominal value. This bill was printed and widely distributed. The following December the bill was taken up for discussion in the senate, and was passed January 9, 1871. On the nineteenth of February following it was reported to the house by the chairman of the coinage committee, with an amendment. It was ordered printed and referred to the coinage committee. In March following it was again introduced and referred back to the committee. In January, 1872, it was again favorably reported from this committee. In April and May following it was discussed at length in the house, and an amendment was adopted retaining the silver dollar as subsidiary coinage and reducing its weight from 412½ grains to 384 grains. This amended bill passed the house in May, 1872. The senate ordered it printed and referred to the finance committee. The committee reported it back to the senate in December following. In January, 1873, it was again taken up for debate in the senate, and after the house amendment providing for the coinage of a 384-grain silver dollar as subsidiary coin had been stricken out, it was passed. Finally, a conference committee reported in favor of the senate bill, making no provision for the coinage of the silver dollar, and this report was accepted and the bill became a law in February, 1873.

In the debates in Congress, covering nearly three years in time and occupying one hundred and forty columns in the *Congressional Globe*, the silver question was openly and fairly considered.

DURING the past few weeks there has been a steady improvement in financial affairs. Confidence is being restored, money is returning from its hiding-places to the channels of trade, interest rates are falling, and the great credit panic of 1893 seems to be ended.

The extent of the depression in business, however, is so great that considerable time will be required to place it in as good condition as it was a few months ago. Manufacturing in nearly every line is limited to the actual daily necessities of trade, which are now very much curtailed. Several hundred thousand wage-earners are out of employment. Reduction in wages of those still employed is an every-day occurrence. The lessened purchasing ability of wage-earners affects every line of retail trade. What hurts one hurts all.

Regarding the outlook, *Price Current* remarks: "As to general business, it has received a setback that cannot be restored at once, but there is every reason to believe that it will recuperate more rapidly than seemed possible a few weeks ago. Already many industrial establishments have resumed operations, and this is giving employment to labor; but there are so many yet idle that many who are dependent upon their current earnings lack the wherewithal to buy the necessities of life and the demand for food and clothing is so much restricted as to make trade dull, and this will keep business at a low ebb for a long time; but it has started upon the road to recuperation, and we may feel confident that it will keep on in that direction."

THE Cherokee Outlet, containing about six million acres, has been thrown open to settlement, and the last large body of public land is passing into the hands of a multitude of individual owners. The tide of settlers rolling westward must hereafter be divided into thousands of little streams. After the final distribution of the government's domain, there will come a revival of land improvement all over the country. In the great West there are lands to be reclaimed by irrigation. In the East and South there are lands to be reclaimed by drainage. In the future the area of arable lands must be enlarged by land improvement, instead of additions from the public domain.

ONE of the most striking lessons shown by the panic is the intimate relation between capital and labor. The contraction of credit and the withdrawal of capital from business threw labor out of employment. Although there may be quarrels between employers and employees, there can be no war between capital and labor. Their interests are mutual. To strike down capital is to strike down labor. The blow aimed at capital falls on labor. A clear recognition of this fact will tend toward the arbitration and peaceful settlement of all differences that may arise between employers and employees.

## The Work is Easy.

## The Profits are Big.

This is what our workers say, and you will say so, too, if you work for us. See our great offers on pages

16, 17, 18, 19

of this paper.



to row, and finally to a row of dry straw placed there for the purpose, and destroyed with the straw by fire. Where they are numerous, however, they are sure to do some damage, and often a great deal, notwithstanding all efforts for their destruction.

Eutomologists tell us that the blister-beetle larvæ live on the eggs of grasshoppers, and that consequently the beetles will appear in larger numbers the season following one of an abundance of grasshoppers. They also advise to deal gently with the blister-beetle just for that reason, and to destroy them only in self-defense. With the grasshopper on one side, however, and the blister-beetle on the other, both eating away for dear life, it seems that the potato grower finds himself between the devil and the deep sea.

Last season's absence of potato-bugs (the Colorado species) had made me careless about this pest, and I have had to suffer for it. My confidence in the capability of natural enemies of the potato-bug—the lady-bird, grand lebia, soldier-bugs, etc.—to deal with them and keep them in check, has not been justified, and we should not count much on their help. Even Paris green treatment may be too slow. I have used Paris green this year in treble strength, adding lime to the suspension in order to prevent injury to the foliage. Still, it requires some time before it takes effect, and the last of the bugs and larvæ are gone. Usually they keep on eating for a number of days; but finally they disappear until rains wash off the poison, and new bugs come on. Where I made the mistake this season was in allowing the first comers of the pest to deposit their eggs. Terry's plan to pick off the old bugs at the very beginning, and thereby to prevent egg laying and the hatching of larvæ later on, is a good one. It is true that the old bugs eat comparatively little. But if we give them full sway, the result will be a great number of egg clusters, and later on a continuous hatching of larvæ (slugs). This means damage to the crop, even if we are quite prompt in applying poisons.

My experience with egg-plant, of which potato-bugs are especially fond, serves as a good illustration, and has given me a lesson. My plants, as soon as set, were attacked by the old bugs, and I could prevent their entire destruction only by prompt hand-picking. At first I let my boys go over the patch twice a day, picking off every bug in sight, and putting them into a tomato-can containing a little water and kerosene-oil.

After awhile the bugs became less numerous, and going over the patch once a day was considered sufficient. This was kept up until the beetles became quite scarce on the plants, when the job was performed only every other day, and finally I gave the order to quit. The egg-plants were saved, and the few larvæ that hatched out from eggs deposited in spite of all precautions, were easily disposed of by knocking off into a pan and by Paris green applications.

Similar treatment would have had similar effect on the potato-vines. In short, I declare myself a convert to the hand-picking method in dealing with the potato-bug, and think that it only needs promptness to get the upper hand of this pest with slight trouble. The long dry spells are more to be feared.

One plan practiced last season on a comparatively small scale, however, is a good one, and seems to take the sting even out of this enemy. This is mulching the ground between the rows heavily with coarse litter. The manure thrown out of our stables during spring and early summer is usually very dry and coarse, consisting of little more than dry straw and hay. This serves an excellent purpose if used in the way mentioned. Of course, it requires some trouble to get the stuff into the patch and properly spread, so that we have only been able to practice it on a small scale. But it is a good thing for the gardener who grows potatoes for an early market, and expects to get a good price for them. I have never practiced the plan of growing potatoes under straw, but if I had plenty of that article and not much use for it I would give it a thorough trial, for I believe that it would pay well, especially in a dry season like this, when new potatoes even in August bring over a dollar a

bushel wholesale. All you have to do is to plant the potatoes on top of the ground, and cover the latter with six inches to a foot of straw, then in due season to gather the crop from under the straw.

The poor onions have had to suffer this dry weather. Mine will not be half a crop. The grasshoppers, too, are taking a hand in this game, and my neighbor tells me that he is compelled to pull and gather his still green Prizetakers in order to save them from the hoppers, which eat them down clear into the ground. I have no remedy to offer except perhaps to place a poultry-house close to the patch, and keep a good-sized flock of chickens or ducks in it. It might be a good thing for such emergencies to keep a number of movable roosts on hand, and put them to proper use at such times. T. GREINER.

RAISING POTATOES IN THE SOUTHWEST.

Potato raising is likely to be profitable here for some, not because the country is specially adapted to them, nor for good market facilities, but because of climatic conditions that render their successful raising somewhat difficult. Many are deterred from attempting to raise any only for their own family use. So those who in a measure overcome the difficulties have a fair field, for as a natural consequence prices are higher than if success was easily achieved.

Perhaps the best method is to plow the ground in August, and sow to oats at the rate of two and a half to three bushels per acre. When the first frost comes, plow the oats under, plowing about four inches deep. Then in February plow again about eight inches deep, and have the soil thoroughly pulverized with disk and smooth-

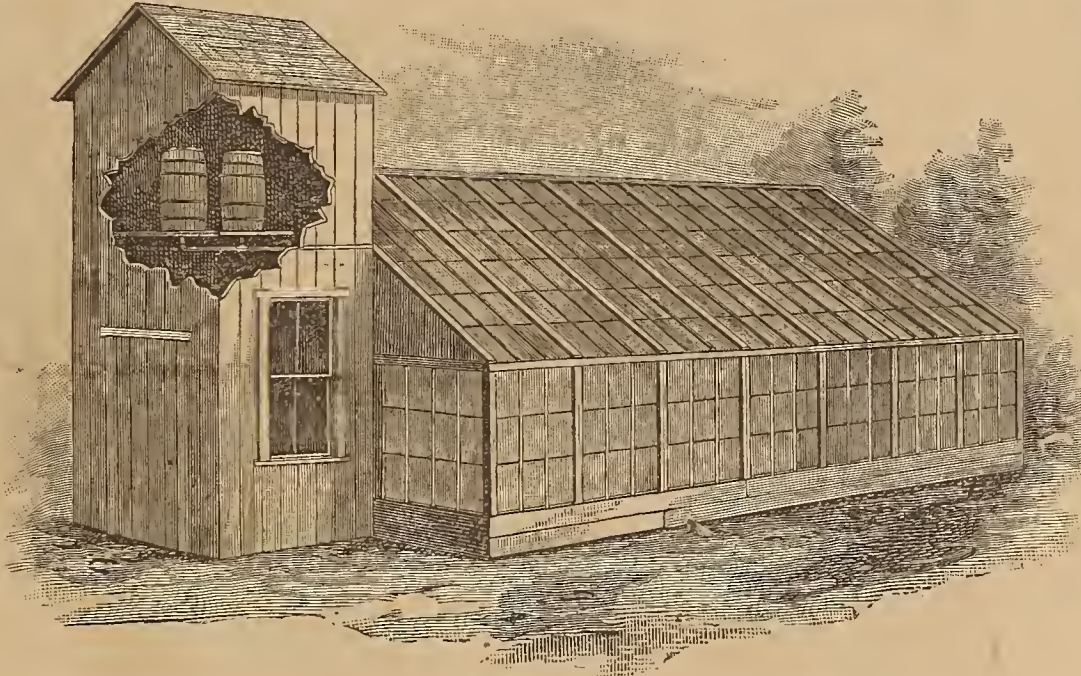
from the spring would be too cold, and by running it into the barrels it gets slightly warmed. I started the house March 1st, and had lettuce to use one month later, and all we wanted right along; then, also, extra fine cabbage and tomato plants, strawberries, etc.

"Shortly after I started to heat the house we had eighty young chickens hatched out, and I at once moved them to the greenhouse and kept them there for some time. They run under the benches, needing no mother.

"Of course, there was considerable cost, but look at the pleasure and satisfaction one has in having good vegetables in winter. My little three-year-old boy was immensely pleased to be in the "greenhouse," as he called it, and a much larger boy (myself) likes it about as well. But I think I would like a bed made like the old-fashioned hotbeds, heated with pipes, for tomato-plants, as it is hard to give them the proper hardening off in a house with permanent sashes. I intend making one this fall, and heating it with the heater that heats the house.

"The house has 250 square feet of ground. There is about 250 feet of 1½-inch pipe, beside a ½-inch line connected with the barrels. The entire outfit costs \$210; most of the work was done by myself. The method of heating is easy and convenient. Altogether I am much pleased with the improvement over the old process of growing early plants."

I can only hope that our friend will carry out his intention of making some hotbeds, and heating them with pipes connected with his hot-water heater. This has a much greater capacity than necessary for a house of that size, and will furnish heat



FORCING-HOUSE.

ing harrow. Mark out with a lister, or stirring-plow run each way in same furrow, allowing the furrows to remain open, that they may receive all moisture possible until planting-time—last half of February or first of March.

There are likely to be periods of dry weather. The object is to have the soil deeply and well prepared, that it may be loose, though firm, to retain the moisture. Very early to medium ripening potatoes are best. J. M. RICE.

Blaine county, Oklahoma.

BUILDING FORCING-HOUSES.

I have spoken of the comforts that even the home gardener can take in the possession of a forcing-pit heated in some convenient and simple way, and of the benefits in pleasure, in study, in fine home-grown plants, in winter vegetables, such as radishes, lettuce, spinach, in flowers, etc., that are thus put in our reach.

Friend E. Bushyager, of Westmoreland county, Pa., sends me a sketch and description of a forcing-house built partly on principles mentioned by me, and now in running order. He writes as follows:

"I have made it like a regular greenhouse in regard to beds, as they are raised one foot from the ground to allow looking after pipes if anything goes wrong. I built 11½x30, with a 6x6 addition to the end 1½ story high, with a cellar. In the cellar I have a water-heater of 450 square feet capacity, costing \$47 in New York. Expansion tank, tools, etc., were kept on ground floor. In the upper half-story I have barrels for water, to water plants with. I fill the barrels by turning a valve. They are connected, and a pipe running into the house carries the water to center. A 15-foot hose with a sprinkler does the rest. To run the water direct to the plants

enough for quite a system of beds. The pipes in some of these might be put along the sides above ground—a single line on each side being sufficient—but for most of them I think I would prefer a double line, incased in large tile, or laid in open space under the hotbed soil. Much heat will not be needed, and even inch pipes would answer for most purposes. The beds should be as near as possible to the boiler end of the greenhouse, to avoid waste of heat through the connecting pipes.

For hardening off tomato-plants, however, I would prefer ordinary cold-frames, although the pipe system makes it possible to use a frame in either capacity, as hotbeds or cold-frame. Should a frosty night be expected, a little heat might be turned on, and off again next morning. JOSEPH.

WOMEN IN FLORICULTURE.

Considerable stress has been laid upon the fact that many gentlewomen in parts of Europe have made striking success in horticulture and floriculture. It may be interesting to know that in our own country women are fast gaining a place among the most efficient workers in these lines. Aside from hundreds who are in the business in a strictly commercial sense, there are scores who are making a good share of the family income by the culture of plants and flowers at odd times. These workers may not have more than a few square feet of garden soil, a hotbed or a sunny window at their command, but they make their own talent yield many fold.

In the line of commercial florists the number of women so engaged is increasing yearly, and I have yet to hear of a business failure among them. Women take naturally to the industry. Their delicacy of touch, good taste in arrange-

ment, an intuitive knowledge of the harmony of colors, and their inherent disposition to economize in the use of blossoms without scrimping, gives them a decided advantage over men workers in the same field. What mysteries there may be in floriculture will be more easily unearthed by women than men. The affinity between flowers and herself is closer than between flowers and man, and in a hundred ways she has decided advantages. Why shouldn't she succeed?

While at present it is true there are few, if any, schools where she may learn the practical workings of the industry, the same school of experience in which many of our best floral workers have gained their knowledge is open to her, and in this school she can surely rank high.

I number among my valued correspondents several women who have "worked up" a profitable business from a beginning so small as to seem about valueless.

In portions of our great country the soil and climate is peculiarly fitted for growing some of the articles used by the trade in all sections. Parts of North Carolina, for example, seem to be the natural home for some classes of bulbs used in enormous quantities. The tuberose, for instance, is as easily grown in some sections of the state as potatoes in New York or New England. Already famous bulb-growers of Europe are beginning to investigate the soil and climate of several of our southern states, with a view to growing their specialties here.

Several years ago so conservative an authority as the late Peter Henderson gave it as his opinion that in fifty years California would rank as the first bulb and seed growing country of the world. One lady in California has for several years made a specialty of growing smilax seed, and finds a ready market for all she can grow at profitable prices. Several women are now actively engaged in growing for the northern markets many of the plants indigenous to semi-tropical Florida.

Sweet-peas for seed are being grown, on a moderate scale as yet, by several women in the northern states. Georgia and South Carolina can produce plants and blooms of the rose fully equal to those grown in France, and I venture the prophecy that ere many years our large perfume manufacturers will look to parts of our own country for their supplies of flowers rather than to Europe.

I am looking forward with unbounded confidence to the time when I shall see many women engaged in profitable flower work, not only as growers of plants and makers of bouquets and floral designs, but as growers of seeds, bulbs, etc. There is no necessity for giving the outlook a roseate hue, for everything points to its culmination by easy and natural causes. GEO. R. KNAPP.

GOOD SEED POTATOES.

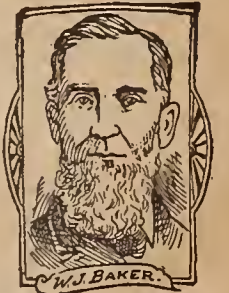
Mr. T. B. Terry, in the *Practical Farmer*, gives an illustration of the importance of having well-kept seed potatoes. A neighbor planted most of his crop with seed kept in pits, firm and sound. A small part of the piece had to be planted with seed badly wilted kept in the cellar. The latter crop is very poor, while that from firm seed is looking finely and will bring a fine crop. It does not pay to use poor seed on a crop requiring much labor.

THE BUSH SWEET POTATO.

I have seen some inquiries about the bush yam. I have a small patch of them this year. The 20th of July there was not a vine two feet long, while the vines of the yellow yam set out the same day were fifteen feet long. They are of easy cultivation, as there is no turning vines, and nearly all the work can be done with the plow. J. E. CAMMACK. Mississippi.

Hood's Is a Blessing

To the suffering. Ever since I was in camp in 1862, when I caught a severe cold, I have suffered with kidney trouble and severe pains in my back, and have been unable to do any heavy work. After I had the grip last spring, I had a bad cough, was very weak, in fact my system was completely run down. I tried a bottle of Hood's Sarsaparilla and it made me feel so much better that I have taken six bottles. It has done



Hood's Sarsaparilla Cures

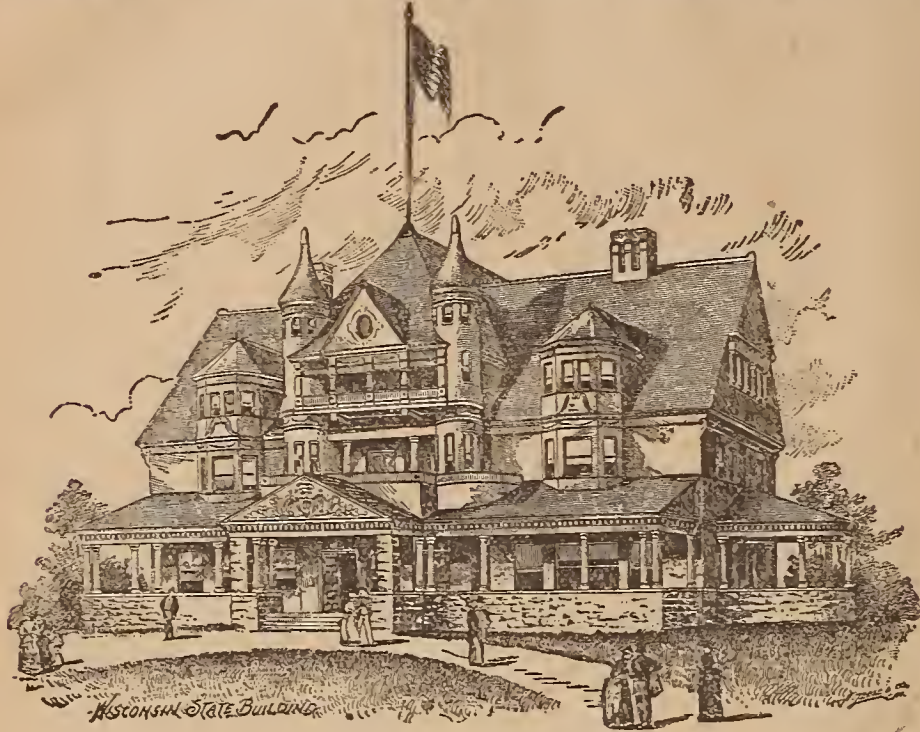
wonders for me, as I have not been so free from my old pains and troubles since the war." WILLIAM J. BAKER, North Pembroke, Mass.

Hood's Pills cure nausea, sick headache, indigestion, biliousness. Sold by all druggists.

## Our Farm.

## FIELD AND GARDEN NOTES.

**M**ORE ABOUT POTATO-BUGS.—Mr. F. M. Webster (Ohio experiment station) quotes in the *Ohio Farmer* the following portion of my remarks in an earlier issue of FARM AND FIRESIDE:



WISCONSIN STATE BUILDING.

"A year ago I was in hopes that the natural enemies of the potato-bug had nearly succeeded in wiping out the bug nuisance. Surely, there were only few bugs on our potato-vines, and not enough to call for the use of Paris green. This year they have returned in old-time numbers—by the million—and probably we shall always have them with us."

To this the following comments are added:

"And what else could you expect? Parasites do not live on air, and a lack of their natural food last year could have had no other effect than that stated. Last year, of all others, was the very year to use poisons. There were just enough bugs left over to stock the fields this spring, but not enough to keep the parasites up to their usual numbers. The enemies of your potato-beetles had your enemy cornered for you, but you let him escape, when a little effort on your part would have completed the extermination. The common notion that it does not pay to apply poisons unless there is prospect of a good crop of apples, or because there are not bugs enough to eat up the potato crop, is the purest of folly. The natural enemies of the potato-beetle were seriously reduced in numbers last year, for lack of food, and as a result there were not enough this spring to do any good. This year there are few apples, few codling-moths, and as a result few of the natural enemies of the codling-moth will occur next year, thus giving the latter full sway to increase unmolested. To not have sprayed this year because there were few apples would have been equivalent to keeping a team without feed on rainy days and on Sundays, because of not working. To not apply poisons when bugs are few is to let a golden opportunity pass unemployed. One individual destroyed at such a time will result in more good, and have a more lasting effect, than will the destruction of a larger number in seasons of abundance."

All this sounds very plausible. A "winged word" of the Germans, translated, says: "It's a beautiful thought; but it turns out differently." So it is in this case. My kind critic possibly imagines I live in a wilderness, and am the only one far and near who raises potatoes, egg-plant and tomatoes, the vegetables on which the potato-bug feeds and fattens. If it were so, I might have succeeded, by dint of some work and Paris green, to kill a portion of the few scattering bugs found last year on my potato-vines. But I have neighbors right and left—east, west, north and south. Some of their potato-patches last year were nearer the field on which I have potatoes this year than my own potato-patch of last season. Besides, the beetles have wings, and go a great ways in search of pastures new. In order to have the least hope of success in exterminating the remnant of bugs "already cornered by their parasites," I would have been compelled not only to apply Paris green to my own patch, but to those of my neighbors besides. If my Ohio friend is young and

green, he may ask me, "Why don't the neighbors co-operate?" Yes, co-operation is a fine thing, and would accomplish much. I believe in it, but it is a beautiful thought, and nothing more. Farmers cannot be made to co-operate, not even under the pressure of immediate urgent needs. Enthusiasm is all right, but young theorists often imagine they can reform the world. It is a thankless task. People do

what they *have* to do. They will spray when bugs and worms threaten to destroy the same season's crop; but the present generation will be dead and gone, and I suppose a good many generations more, before you can get farmers to expend labor and material on a crop not threatened by any foe, simply for problematical results to be expected a year or two hence.



TEXAS STATE BUILDING.

We are not built that way. All that I might have done last year is to apply Paris green to my vines in order to set a good example to my neighbors; but I am too old and experienced in these matters to try such schemes for the reformation and education of others. They will not work; and I will leave it to younger people, with more enthusiasm and less practical experience, to shoot with Krupp guns at a sparrow supposed to sit on a tree twenty-five miles away.

Then another thing. Says Mr. Webster: "The enemies of your potato-beetles had your enemy cornered for you, but you let him escape, when a little effort on your part would have completed the extermination." (The italics are mine.) Well, my friends, don't let us think so lightly of nature's recuperative powers. Nature is profuse in her means of reproduction. Let ten beetles escape one season, and in a year or two, under conditions favorable to their thrift, they will have increased to millions. Even with means so deadly as Paris green, we can never hope to "exterminate" one of nature's smallest creatures—neither bug nor worm—as long as natural conditions favor their increase.

If, however, we fight the beetle nuisance promptly, by hand-picking the first comers and by poisoning the slugs later, which line of treatment I have spoken of in a previous number of FARM AND FIRESIDE, we can keep our potato-vines reasonably free from the pest; but even then there will be enough left to give some trouble to tomatoes, and especially egg-plant, after the potatoes have ripened and their tops died away. At this time, usually, the

earlier broods have reached the beetle state, and they seem to be hungry. After the potatoes have gone, other (later) members of that order of plants have to suffer, and the beetles often come in such swarms that you may poison them by the wholesale without making a visible impression on their number.

**GRASSHOPPERS.**—What can we do with them? They eat us out of house and home—at least out of our garden. Never in my life have I seen them so plentiful. They have eaten bean and potato tops, whole rows of cabbages, celery, etc., and the silks and tips of the newly-forming ears of sweet corn. I have nearly an acre of Maule's Mammoth sweet corn, and am afraid I will not have what roasting ears we want for the table. Is there a practicable remedy for this pest? They are afraid of a black cloud of smoke, such as a traction-engine, when soft coal is used for fuel, will put forth. If we wish to protect small areas, gardens, etc., it may be possible to drive the hoppers off by burning some substance like damp straw or sawdust mixed with tar, on the windward side of the patch. Possibly a number of persons, each provided with a leafy tree branch, and forming in line, may be able to drive them away from the vegetables we wish to save. Poisoning can have little effect where they appear in dense swarms and droves. They will have eaten the poisoned food before the poison can take effect. Who can suggest a way out of the dilemma?

**HORTICULTURAL LIMA BEAN.**—This has been mentioned and recommended, even by such papers as the *Rural New-Yorker*, as the earliest of all pole Limas, and as superior to anything else in point of quality. I find it early, indeed. The pods have ripened and the plants about died down at the time when the first of the large bush Limas are just ready for use. The pods, too, seem to ripen all at once, giving no

succession, as pole beans should. In so far I consider them a failure. Then I cannot see much of the Lima bean characteristics about them. I prefer real Limas to this half-breed, and am not at all suited with the latter's quality. Possibly we have not cooked them or had them served as they should have been. I will hereafter wait for the Limas, and be contented with



IOWA STATE BUILDING.

them. Of course, I grow the bush forms altogether; Henderson's for early and Burpee's and Dree's (Kumerle) for main crop. Burpee's bush Lima occasionally reverts to the running habit; but I pull up such plants as soon as I recognize their nature, and keep my patch in true bush form. But I think I will have to give the Horticultural Lima one more trial, and this, too, on a larger scale. Possibly I may yet find in it qualities to admire. We should not give up too soon.

JOSEPH.

## STATE BUILDINGS AT THE COLUMBIAN EXPOSITION.

The Wisconsin building is constructed mainly of native material; brownstone, pressed brick and hard woods. Its special feature in the way of exhibits is a large and interesting historical collection.

The Texas building is constructed of native material entirely after the style of the old Spanish Missions. Building and grounds exhibit to the visitor something of the vast resources of that great state.

Part of the Iowa building is a reproduction of the far-famed Sioux City corn palace. The main hall is fantastically decorated with figures composed of grains, grasses and minerals. In style the building is like a French chateau.

Interesting art exhibits and a display of the vast agricultural resources of the state are the features of the Nebraska building. It is of the Corinthian order of architecture.

Works of art, displays of the state's products, educational exhibits, historical collections, relics and curiosities are all found in Missouri's building. The eastern and western parts of the state have been friendly rivals in making attractive their beautiful club-house.

Orchard and Small Fruits.  
CONDUCTED BY SAMUEL B. GREEN.

## FIGHTING APPLE-BORERS.

Prof. Forbes, Illinois state entomologist, makes the following timely suggestions in reference to fighting apple-borers:

1. *Preventing the Laying of Eggs.*—This is best accomplished by washing the trunk and the larger branches of the tree three or four times in summer, with a strong solution of soft soap, to which has been added a little crude carbolic acid. The soil should be evenly smoothed down about the base of the tree, so the mixture may reach the lower portion of the trunk where the round-headed borer is apt to lay its eggs. Washing-soda added to the soft soap, until the whole is of the consistency of thick paint, is also thought to make an excellent wash for repelling the beetles. In Ontario the first application should be made early in June or about the middle of May, and succeeding applications at intervals of about three weeks.

2. *Destroying Eggs and Larvæ.*—This should be done in August, September and October. By a careful examination of the trees during this time the eggs and young larvæ may be detected, and by the judicious use of a knife they may easily be killed. If the ground is smoothed off about the young trees early in the season, the insects in the lower part of the trunk are more readily reached; or an excellent way is to compel the beetles to lay their eggs where they can be easily reached, by mounding the bases of the trees either with sand, which is best, as it does not crack open and allow the beetle to deposit below the surface, or with ordinary soil. According to Hon. J. W. Robinson, for many years a successful orchardist in central Illinois, one man can usually examine and kill all eggs and borers in five hundred or more trees per day.

## ABUNDANCE PLUM.

The Japan plums are quite distinct from either our native or the widely-known European varieties. In habit of tree they re-

semble somewhat the vigorous Chickasaw varieties, but their foliage is peculiarly large and distinct. A few of the Japan plums are fairly hardy, but most of them are better adapted to the middle and southern states than they are to Ontario, and there their introduction has given a fresh impetus to plum growing, owing to their large size, beauty and excellent flavor.—*Canadian Horticulturist.*

The Abundance is one of the Japan plums which has received an American name. It has been considerably pushed by nurserymen. As yet it is too early for any reliable statements to be made concerning its adaptability to the colder sections of this country, but it has succeeded well during the last three or four years in New York and Michigan.

Mr. Lovett, of Little Silver, New Jersey, viewing it from a nurseryman's standpoint, says of the Abundance: "This plum is unlike any other. In growth it is strong, and handsome enough to be planted as an ornamental, and equals the Kieffer pear-tree in thrift and beauty. Its propensity for early bearing is such that it loads in the nursery rows, bending the limbs with the weight of the fruit until they sometimes break. The fruit is large, showy and beautiful; color, amber, turning to rich, bright cherry, with a decidedly white bloom and high perfume; flesh, light yellow, and exceedingly juicy, tender and sweet; free stone; excellent for canning; season very early, ripening in advance of other plums."

Mr. S. D. Willard, of Geneva, New York, writes concerning it: "I have fruited this plum for four or five years, and find it hardy and productive, of fair quality and well received in the markets. I do not think it equal to the Burbank in productiveness, or to some of the sorts of the Japan in quality, but its very beautiful appearance causes it to take well in the city markets."

Mr. Van Deman, chief the United States department of pomology, says of it: "This plum is of medium size—that is, among the Japanese plums—being fully as large as the larger of our common cultivated plums (*Prunus domestica*), heart-shaped, of very good quality, and I think, hardy over a large part of the United States. Color, greenish-red."

PEACH BUDS IN MARCH, 1893.

In the April bulletin of the Massachusetts experiment station is the following statement of the condition of the peach buds last spring. While all the varieties mentioned had enough buds to give a good crop, providing the season was favorable, yet Crosby and Wager stand out clearly from the rest as having much the hardest fruit buds of the kinds tested.

The following table gives the average per cent of buds of each variety that were destroyed March 20, 1893:

VARIETY.	Dec.	Jan.	Feb.	Mar.
Reeves' Favorite.....	.015	.120	.245	.23
Wager.....	.005	.072	.095	.10
Wheatland.....	.060	.144	.182	.21
Crosby (Excelsior).....	.022	.040	.055	.06
Stump.....	.060	.102	.160	.20
Red-cheeked Molocoton.....	.015	.100	.195	.25
Old Mixon.....	.010	.204	.220	.32

TESTS OF VARIETIES OF STRAWBERRIES.

For the benefit of those farmers who contemplate setting out a strawberry-bed this fall for family use, the following information concerning varieties is sent out at this time. These ten varieties are taken from a list of over one hundred, which have been tested for two or more seasons on the experiment grounds at this station, and have been selected with special reference to their desirability for the table. They are also divided equally between those varieties having pistillate and those having perfect or bisexual flowers, which is indicated by the letters P and B.

*Brunette* (B).—This was originated by Mr. G. Cowing, of Muncie, Ind. The plant is a good grower and productive, berry dark red and of the very best quality. Especially desirable for home use.

*Bubach's No. 5* (P).—Under good treatment this is one of the largest and most profitable varieties that we have grown. The quality is a little inferior, however.

*Katie* (B). This has not become generally known, but it is really a first-class berry for the table. Quite early, productive, of good size and quality.

*Edgar Queen* (P).—A comparatively new variety which has not been advertised very extensively, but it has given better satisfaction than many others which have been so highly praised.

*Lovett's Early* (B).—A good grower, productive, and the fruit of excellent quality, but not so early as the name would indicate. This would do well to set with *Greenville* (P), which is an Ohio berry and gives good satisfaction wherever grown. Desirable for either the table or market.

*Parker Earle* (B).—A medium late berry, and would do well to plant with *Shusters' Gem* (P). Both these varieties are quite

productive, of good size and quality. The first, however, does not produce many plants.

*Cumberland* (B).—In many localities this old variety continues to be a favorite. With us, however, it has come to be a very shy bearer, and for that reason alone I do not recommend it for general cultivation.

*Warfield, No. 2* (P).—For an all-around berry this stands at the head of the list. The plant is small, but a wonderful grower and very productive when given good care, as all varieties should have. The berry is a dark, glossy red, not overly large, rather tart, which quality it retains

successful in dry seasons, but it should be tried experimentally at first, as the foliage of the peach is quite susceptible to injury from arsenic compounds.—Yes. I believe that by breaking up the June-grass sod and then manuring the trees with commercial fertilizer or stable manure, that the trees would produce paying crops. It always seems that the weakest trees are more infested with insects than any others. If you do not want to break up the whole piece, then break up a strip on each side of the trees, so that the young roots can have a chance to grow. If the land dries out badly, a light mulching of refuse hay or litter will aid in this particular very much, but in wet autumns it should be drawn away from the trees, or a late growth may be encouraged.



NEBRASKA STATE BUILDING.

after being canned. It is the best canning berry we have tried.—*James Troop, Horticulturist Purdue University Agricultural Experiment Station.*

INQUIRIES ANSWERED

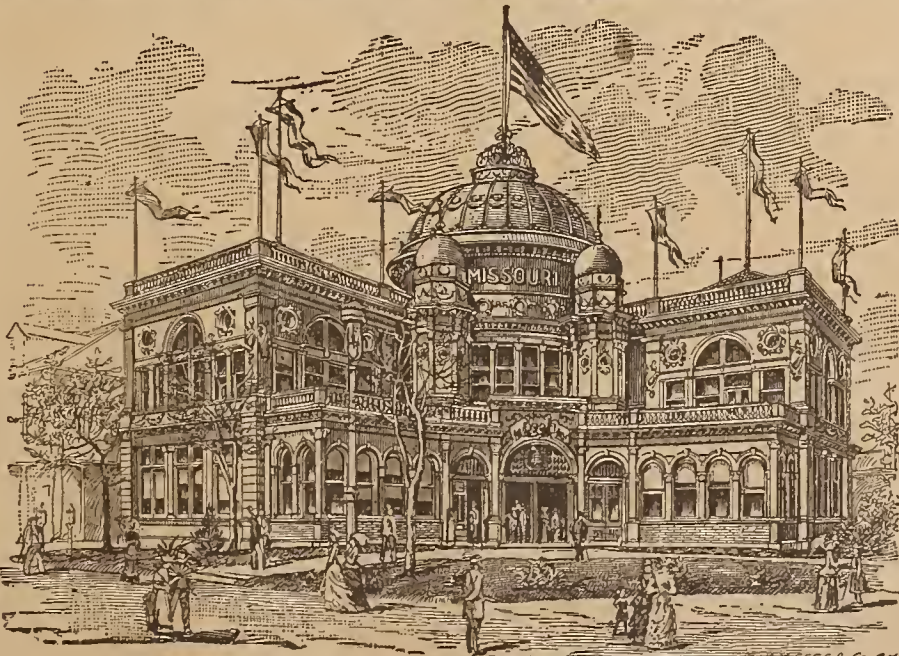
BY SAMUEL B. GREEN.

**Shaded Grapes—Trimming Vines—Curculio—Cultivating and Manuring Orchard.**—B. C., Clarkston, Mich., writes: "Our grapes are staked. They have formed heavy and dense growth of vine and foliage, the runners crossing and nearly filling the spaces, which are seven and one third feet each way. Consequently, much of the fruit is more or less shaded. Is it advisable to cut away the vine or leaves, so as to let the sun in to the clusters, particularly as it is extremely dry?—What time of year is generally considered best for cutting away the surplus growth of vine?—Is the insect which stings the peach the same as the plum-curculio? And is there any remedy practicable with several hundred trees?—Our orchard, or the larger part, occupies a hill of some two acres. The trees were grown from the pit, and have not been grafted or budded. Around the foot of the hill the trees have thrived very well, but as the ground ascends they are dwarfish and unthrifty. The soil is in parts gravel and other parts considerable clay. It is in June-grass sod. Do you think these trees could be handled so as to make them profitable—such as produce marketable fruit? They set quite full last spring, but have nearly all been stung, and the greater part dropped off."

REPLY:—No, it is not necessary to have the sun shine on the grapes to ripen them, and often it is positively injurious. The best bunches that ripen are generally in the shade, and grapes ripened in paper bags are extra good in quality and color. Then, too, any

**Pruning Gooseberries and Currants.**—M. A. S., Belgrade, Mont. Gooseberries should have plenty of room to develop and not be crowded. In pruning, remove all but four or five of the best shoots, and then cut back about one half of the new growth each year. As these shoots get weak or diseased, allow shoots to grow to take their places. The currants should have about the same number of shoots from the roots, but the new wood on them should not be cut back. If the plants branch too close to the ground, simply remove or shorten the lower branches. It is not a good plan to prune either of these fruits to a single stem and make little trees of them, as a single borer may then spoil the whole plant, but it is readily done by allowing only one stem to grow and cutting off the lower branches. Some kinds of currants—for instance, *Fay's Prolific*—are inclined to spread, while others are quite erect in habit. Pruning should be done in October or very early in the spring.

**Seeding Fig-tree Not Fruiting.**—M. F. C., Waldron, Ark. Fig-plants from seed generally fruit in five or six years, but there is nothing certain about the plants so grown. They do not come true to name, and often are of little value. In your case, perhaps the bush has been growing so thriftily that it has not set fruit, and by checking its growth—for instance, by moving it to poorer soil—you might start it to fruiting. It is possible, however, that it may never fruit, but I would try the plan suggested before giving it up.



MISSOURI STATE BUILDING.

removal of the foliage at this time, or at any time during active growth, for that matter, can only result in checking the growth of the plant. Most of the successful vineyardists do not summer-prune much, if at all. They only take off the tip of the young growth. The aroma and juice of the berry—and in fact, all of it—is prepared in the leaves.—In the autumn, after the leaves have fallen; but it may be safely done during mild days in winter.—Yes, it is the same insect, and it may be kept in check by jarring the trees early in the morning, when the beetles will curl up and fall down on any sheets that may have been spread under the trees. Spraying the fruit with Paris green and water at the rate of one pound to two hundred gallons, as recommended to prevent its work on the plum, is

SELLING PRODUCE.

Some farmers appear to think that it is only necessary to place their produce before the people, that the consumer is ready to buy at sight, without question. When a man buys a new hat he may not accept the first one offered, even if it fit. If the dealer tells him that is exactly what he wants he will probably buy some other. He has some choice in the matter, and has the right to exercise it. It is exactly so in buying a box of strawberries; the buyer will choose to please himself, and when he buys for himself—his own consumption—he is naturally very particular. If some fruit dealers went into market to buy they

know that they would not buy fruit prepared as theirs is.

At a fruit-store in a large city one morning there was a large display of strawberries; among them was one lot of about fifty boxes, every berry of which had been picked with the stem—the stem of full length. Whatever the object was, the result was that every box held a less number of berries than they would if the berries had been cut with short stems.

There was still another lot, as fine as any berries there, but they were "sandy." Interested to know how these berries would sell, I kept an eye to them during the day. At nine o'clock the price was 25 cents for the long stems, and for the sandy berries, 18 cents. At three o'clock not a sandy berry had been sold, and the price had been reduced to 10 cents; two thirds of the long-stem berries were still on hand and the price had declined to 15 cents. At five o'clock the sandy berries were all on hand and the price-card had been removed; the stem-berries were two for a quarter, and about six o'clock I bought three boxes for a quarter.

It had been a good day for strawberries, and all other lots, except a few boxes of inferior fruit, were sold, and, generally, sold at the same price all day. Now, the buyer resented this attempt to sell him sandy or long-stem berries. What was the sandy-berry man and the long-stem berry man trying to do, or thinking of when they prepared those berries for market? Did they expect to impose on the people? It is a curious fact that when a man undertakes to do something like this he imagines that he is a little smarter than the average buyer; but he makes a great mistake. The buyer buying for his own consumption is governed by the exercise of extraordinary care, and he can see as far into a millstone as the seller. The sandy-berry man and the long-stem berry man had their reward—no sale. They tried, presumably, to trick the people and failed, with loss of product and labor.

The Connecticut fruit-grower, J. H. Hale, told this story in a lecture last winter: His market was overstocked with strawberries, but he had berries and they must be sold then, if ever, at some price. As he was starting for market a member of his family came up with an armful of roses and placed one on a box of berries. This caught Mr. Hale's fancy, and a rose or bud was added to every box—320—and the result was that, although the dealers had more berries than they wanted, yet they bought these quickly at a price above the market—12 cents—and the dealers were selling at that price. As Mr. Hale remarked, "The people do not eat roses, but they are willing to pay more for neat and tasteful packages."

If you have never been through any of the great markets, such as Quincy market, Boston, Washington market, New York, the market in Washington (you ought not to miss it if in either city), you will see how much attention is given to mere display of goods. In these markets competition is sharp, and the slovenly dealer or the thoughtless producer finds his wares unsold if there be anything to criticise, or if the dealer in the next stall perhaps has the same goods, but in a more attractive package.

GEORGE APPLETON.

EXTRACTS FROM CORRESPONDENCE.

FROM LOUISIANA.—Webster parish is in the northwestern portion of the state. Some portions of this parish are hilly and dry, which makes it healthy and pleasant. For many years Webster has been improving, and is now one of the leading parishes in the state. For a farming section it cannot be excelled. Almost anything can be raised here, and crop failures are unknown. The general products are corn, cotton, oats, sorghum, sugar-cane, peas, Irish and sweet potatoes and fruits. Most of the white farmers have land of their own, and are doing well. They are beginning to raise everything they possibly can at home. The people are industrious, kind and social. We have good schools, and churches of almost every denomination. Land is cheap and very productive. Corn yields from fifteen to thirty bushels per acre without fertilizer, and some of our land makes a bale of cotton per acre without fertilizer. Minden is the parish-seat, and is a very beautiful place, with a population of about 1,500. It has a railroad, a bank and a cotton compress and a fine college. We have good water here, some very fine springs, plenty of mineral and free-stone water. Home-seekers will find this a splendid country. We need more good, honest people. Let them come.

T. F. G.

Hearn, La.

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## Our Farm.

## THE POULTRY YARD.

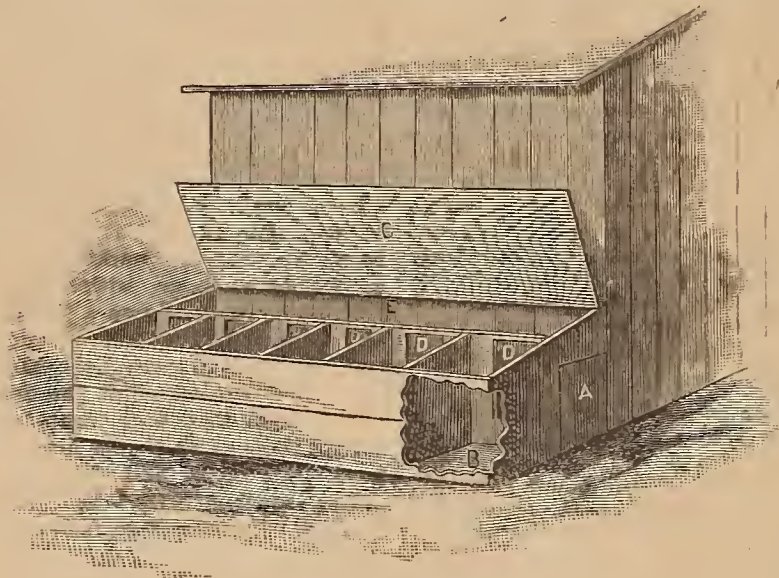
Conducted by P. H. Jacobs, Hammonton, New Jersey.

## ROUP AND DAMPNESS.

The most frequent inquiry received by us is that referring to roup, and although the subject has been discussed in these columns many times, yet we receive numerous letters in regard to it. The hens that are exposed, or that have constitutional or hereditary weakness of any kind, are most subject to it. Roup may be known by discharges from the nostrils, swollen eyes, or swollen head. Sometimes, in its most violent form, a very foul odor is present. It may be caused, also, by any kind of a draft of air on the hens, especially at night, and as it may be months before a cure can be effected, any attempt in that direction only involves labor that may be fruitless, especially as hens that have been attacked by roup seldom become entirely well, being liable to attacks on slight provocations. Dampness is the principal cause of roup, and as the winter is coming the poultry-house must be put in condition to protect the fowls from leaks or drafts. Cures are of no avail, as a recovery may be but temporary. In case of roup, destroy the sick birds at once, as the disease is contagious.

## OUTSIDE NEST-BOXES.

The illustration is intended to show the nest-boxes on the outside of the poultry-house. The eggs are collected by raising the lid of the box (C), and the hens enter a passageway (E) at the door (A). The interior of the box is shown, the nest-



OUTSIDE NEST-BOXES.

box being seen at B, which does not, however, contain the litter for the nest, the bare floor being made plain in order to convey a better understanding of the construction of the box, while DDDD show the entrances to the nests. As laying hens will always prefer a secluded place for a nest, this arrangement will be found excellent. The lid, when closed, prevents water from reaching the nests, and the eggs are taken out by simply raising the lid and reaching them with the hand. The hens can be shut out at any time by closing the opening to the passageway at A, and more room is thus gained in the poultry-house. The design was originated by Mr. J. C. Baker, Illinois.

## A TEST WITH LAYING HENS.

Perhaps it is safe in stating that a large majority of those who keep poultry are of the opinion that in order to have the hens under the best conditions for laying, a male must be in the yard with them. If eggs are desired with the object of hatching chicks it is necessary to have a male with the hens, but as hens will lay as many eggs when no males are present as when with them, the feeding of a lot of useless males may be discarded. Recent experiments by Mr. W. P. Wheeler, at the New York experiment station, Geneva, in which he selected four yards of pullets, in order to test the value of the males, demonstrated that males are entirely unnecessary. In fact, the pullets in yards containing no males not only laid more eggs than did the pullets that were with males, but also produced eggs at less cost.

The demonstration of this fact by an actual test will effect a revolution in the keeping of laying hens. It means a saving of food, less disposition to quarrel, better keeping qualities of the eggs, and a cheapening of the cost of the eggs, as well as a

saving of the space occupied by males which should be given to hens or pullets. Those who desire to hatch chicks can select a dozen of the best females and confine them in a yard with a pure-bred male. As one male can sire a thousand chicks in one year, it is plain that but few males are necessary. The usual practice is to allow one male with ten hens, which compels the feeding of a hundred males if as many as a thousand hens are retained.

The greatest advantage derived, in addition to the increase of eggs and the saving of food, labor and space, is that eggs from hens not with males will keep three or four times as long as will eggs from hens that are with males. If eggs are to be preserved, it is detrimental to keep males in the flocks. When it is considered that a large number of males become expensive, and that the hens will produce more eggs when the males are not present, and also that the problem of preserving eggs is solved by keeping no males, the farmer should hereafter make it a rule to do away with males entirely, unless chicks are to be hatched. With the non-sitting breeds, where eggs only are desired, and not chicks, the male is a useless member of the flock.

## HEAVY FEEDERS.

It is sometimes used as an objection against certain hens of the flock that they are heavy feeders and add too much to the cost. Before a decision is made on this point, the poultryman should compare the cost of the food with the results obtained from the hens. A hen must consume a certain quantity of food in order to produce a large number of eggs. The eggs are simply the food converted into something of a different shape and composition. It is of no advantage to have a flock of hens that consume but little food if they do not lay.

three fourths bred. We suggest this, as some do not care to go to the expense of buying pure-bred females. By using good males a great improvement can be accomplished in two seasons, or even in one year. The best time to get the male is in the fall, as prices will be higher in the spring.

## ADVANTAGES OF PEKIN DUCKS.

The Pekin duck is entirely white, which gives the feathers a greater value. It is claimed that the feathers will pay the cost of killing and dressing for market. The Pekin is a breed that thrives well where there are no ponds, and the young ones grow rapidly, often reaching half a pound for each week until they are ten weeks old. We have known them to gain a pound in a week when over eight weeks old, but it is considered a good weight to have them weigh five pounds when ten weeks old, and they frequently attain it.

## CABBAGE FOR WINTER.

The small and inferior cabbages will answer as well for the hens as the best, and such unsalable food may be converted into eggs and sold. It is best to aim to give green food of some kind after the fall has passed and grass is scarce. Green food cannot easily be obtained after grass is gone, but cabbages make an excellent substitute. They do not contain a large proportion of nutritious matter, but serve to diet the fowls and promote the appetite by providing a change from dry food.

## STORE A SUPPLY OF DIRT.

Get in a supply of dirt before winter. Have it dry, and place it where it can be used conveniently. Dirt is important, as the hens use it for dusting. It also absorbs droppings, serves as a deodorizer, and makes it easy to clean out the poultry-house. A bushel of fine, dry plaster, mixed with ten bushels of dry dirt, will be an advantage. Keep the dirt in a dry place, free from dampness.

## LEARNING TO MANAGE.

The only way to learn is to begin at the bottom. Study is important, but practical experience impresses the necessity of attending to details. It is unsafe to begin with a large flock, owing to the risk of loss of capital, time and labor, but when the beginning is made with a small flock, the losses are at a minimum, and are not severely felt. The only way to learn to manage is to get to work and observe all details.

## CORRESPONDENCE.

**TO SHELL SUNFLOWER SEEDS EASILY.**—When ripe, cut off the stems close to the heads. Spread the heads, seed side up, on racks in the sun to dry, or under an open shed. When dry, or nearly so, take a head at a time in one hand and a light club in the other; turn the head over, seed side down, and with the club strike it two or three sharp blows, from below upwards, and the seeds will all fall out clean. *Dayton, Ohio.* J. S.

**RAISING TURKEYS.**—I would like to add my experience with turkeys to that of other correspondents. I have raised them every year for a number of years, sometimes with profit, and again have lost every one; but I am fully convinced that they do better to be left to their own ways. Let the mother lay her eggs and sit on them without being disturbed, and let her come off and go her own way, and she will find food and shelter for her brood, and bring up more of them than you could if you undertook to care for them. *Greenwich, Conn.* A. P. H.

## INQUIRIES ANSWERED.

**Incubators.**—L. B., Elkhart, Ind., writes: "When should incubators commence to hatch early broilers?"

**REPLY:**—It is usual to begin in October and cease in April.

**Non-sitters.**—J. E., Vandalia, Ill., writes: "Will you oblige by naming the breeds that do not sit?"

**REPLY:**—Leghorns, Hamburgs, Red Caps, Black Spanish, Minorcas, Andalusians, Polish and the French breeds.

**Food for Fattening.**—C. R., Long Island City, N. Y., writes: "Which is the best food for fattening chickens at this season, and how often should they be fed?"

**REPLY:**—Give a variety, but let grain predominate. Corn and wheat, given three times a day, should make them very fat in two weeks.

**Roup.**—L. M. S., Harrison, Ohio, writes: "My fowls become mopey, eyes watery and closed, and finally they lose the use of their legs and die. They roost on trees."

**REPLY:**—Probably due to exposure to storms, as the symptoms are those of roup, though the lameness may have been caused by jumping off the tree limbs. Put them in a building, on straw (no roosts), and anoint heads with sweet-oil once a day.

**Feather Pulling.**—H. S., Dresden Center, N. Y., writes: "I keep about twenty hens. They are healthy, and commenced shedding feathers last winter. The feathers do not grow out again. What is the cause?"

**REPLY:**—Your hens have been, and are now, pulling feathers from each other, it being a vice induced by idleness and high feeding. There is no remedy but to dispose of them and procure new stock. Many remedies have been suggested, but none are effectual.

**Probably Poison.**—"Reader," Janesville, Wis., writes: "I have two dozen hens, mostly Red Caps and Hamburgs. They appeared healthy. In an hour one died. Then others became sick. They are motionless, apparently dead, unless touched. I never saw anything of the kind before. Can you give cause of the ailment?"

**REPLY:**—No reason can be assigned for the difficulty other than to suppose that the birds found and partook of some poisonous substance.

**Preserving Eggs.**—L. H. H., New Point, Indiana, writes: "How long will eggs keep if preserved in salt? Is the salt method a good one? Do you know of a better plan?"

**REPLY:**—Eggs from hens that are not with males will keep three or four times as long as fertile eggs. Simply keep the eggs on a rack in a cool place and turn them three times a week. The length of time they will keep depends on the eggs being fertile or infertile and their freshness. We do not advise the use of salt or any other packing material.

**Loss of Chicks.**—T. V. W., Lutherville, Md., writes: "My chicks die off at about two weeks of age. What is the reason and remedy? They are fed all they will eat of a mixed feed of wheat middlings and corn-meal, mixed in hot water, with a little salt, and wheat and corn, and have a large field to run in. They have never had the gapes, but many weaken and die at the age named. It seems that most of the Leghorns die, while the Plymouth Rocks and mixed breeds survive. Is this generally so? They are batched by hens and put out with hens, and are shut up in coops until eight or nine o'clock A. M."

**REPLY:**—The loss is perhaps due to large lice on the heads, and also to mites. As young Leghorns feather rapidly they become debilitated sooner than chicks of some other breeds. Dust with insect-powder and rub a few drops of oil on the heads.

**Uniform in Action.** One of the most common difficulties arising from the use of medicinal remedies is that of over-action at first, and constantly decreasing efficiency as repeated doses are given. This necessitates a change in the treatment, and as no two medicines act alike, the full benefit of the most advantageous remedy is not obtained.

Here is one great superiority of Brandreth's Pills. No matter how they are taken, they are just as efficient the last time as the first, and no more so. They never are too strong, nor on the other hand do they lose their virtue by repetition.

## Brandreth's Pills

are thus invaluable in cases where a physician is not easily accessible. Their action being uniform, there can be no mistake in using them.

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REMEMBERED ALL THE NAMES.

A good story is told of a bright young American and several German officers, who, at a dinner one evening, set out to make him uncomfortable by chaffing him about his country.

"Henry F. Merritt, then consul at Chemnitz, was the first one of the Americans attacked with a taunt from one of the Germans that he would not give the names of the presidents of the United States.

"The Germans got down a book giving the names and kept tabs on the young man as he correctly went through the list. They were pretty well backed down already, but Washburn had no idea of letting them off so easily.

"The Germans were completely floored. Not one of them could go half through the list, and they were on the point of apologizing to the young Massachusetts scholar, when he took them down still more by modestly suggesting, 'Perhaps I had better do it for you.'

"He began with Charlemagne, and went through the list without a break, much to the astonishment of his German hosts and the delight of Consul Edwards and the other Americans.

"Oh, my father had a taste for such things, and taught them to me when I was a boy, and you see, they are sometimes useful to know," he quietly replied.

COLD WATER AND LONG LIFE.

Dr. R. H. Dalton says that although to suggest the methodical use of cold water as a beverage in the absence of thirst as a means of augmenting the chance of longevity may render a man liable to be dubbed a crank, if not a lunatic, the idea has a soundly physiological origin, and is well supported by experience.

In the latter stage of digestion, when comminution of the mass is incomplete, it is much facilitated by a moderate draught of water, which disintegrates and dissolves the contents of the stomach, fitting it for emulgence and preparing it for assimilation.

MAN IN SOUTH AMERICA.

There is no part of the world that offers a more curious subject of speculation as to its future than the continent of South America, as was well set forth in an address before the American geographical society, by its president, Mr. Gardiner G. Hubbard.

That the Amazon river system alone drains a basin of fertile land hasking under a climate of perpetual summer, greater in area than the whole of Europe, is an astounding fact in itself. This vast territory is practically uninhabited.

The question up to which Mr. Hubbard leads his reader is second in importance to none in anthropology—that of acclimation. Is it possible to fight against the terrible odds of a tropical climate? He quotes in his favor the words of the historian, Buckle, and the naturalist, Bates; he might have added others of weight; but it cannot be doubted that most of the medical observers who have devoted themselves to this vast inquiry lean to the opinion that never will the white race flourish under tropical skies.—Science.

DROP OF WATER SETS A BUILDING ON FIRE.

It is rather an unusual thing to set a building on fire with a drop of water. But that is what occurred in the office of the Royal insurance company in the Royal insurance building a day or two ago.

DO YOU KNOW?

Do you know you can drive nails into hard wood without bending them, if you dip them first into lard?

That corks warmed in oil make excellent substitutes for glass stoppers?

That a lump of camphor in your clothespress will keep steel ornaments from tarnishing?

That bread crumbs cleanse silk gowns?

That milk, applied once a week with a soft cloth, freshens and preserves boots and shoes?

That gloves can be cleansed at home by rubbing with gasoline?

That weak spots in a black silk waist may be strengthened by "sticking" court-plaster underneath?

That tooth-powder is an excellent cleanser for fine filigree jewelry?

That a little vaseline, rubbed in once a day will keep the hands from chafing?

That gum arabic and gum tragacanth, in equal parts, dissolved in hot water, make the best and most convenient mucilage you can keep in the house?

JOURNALISM.

Lectures on journalism are becoming abundant. It goes without saying that nineteen times out of twenty they are by those who know nothing of their subject experimentally, but know all about it theoretically.

FIRE LOSS OF THE UNITED STATES.

The Baltimore Underwriter says: "According to the statistics furnished by the United States census of 1880, the wealth of the nation was estimated at \$13,642,000,000."

CALL NO MAN FOOL.

Never call a novice a fool because his work is not up to your standard of excellence, for probably had he your experience he might be able to give you points about your work that would cause you to justly consider yourself the fool!

A QUICK WAY For getting a start up the ladder of fortune is to send for our special terms to agents. We want a representative at every post-office in the land, and to such as have hustling qualifications we will make the most liberal terms.



THE CREAMERY.

Butter must be sweet and clean. That is the first requisite. It can not be perfectly sweet unless the place in which it is made and all the utensils used in its manufacture are perfectly clean.

The old rule was: "Do not use soap to clean the churn"—this referred to sticky rosin soaps.

Ivory Soap can be used freely; it is the best for creameries or dairies, because it rinses easily and leaves neither odor nor taste.

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The Shawknit Half-Hose

have won an enviable reputation, in being the best-fitting, longest-wearing, most comfortable in the market. They differ structurally from all others, in having gussets in the heel, which make the heel large enough to accommodate the human heel and prevent drawing over the instep.

PERFECT-FITTING

half-hose have learned that there is a Difference between Knitting and Stretching a Stocking to the shape of the human foot.

LOOK FOR Shawknit ON THE TOE. SHAW STOCKING CO., Lowell, Mass.

THE WORLD'S FAIR.

Among monuments making the progress of civilization throughout the ages, the world's Columbian exposition of 1893 will ever stand conspicuous. Gathered here are the forces which move humanity and make history, the ever-shifting powers that fit new thoughts to new conditions, and shape the destinies of mankind.

HARDWARE IN HISTORY.

Breech-loading rifles were invented in 1811, but did not come into general use for many years. It is estimated that over 12,000,000 are now in actual service in the European armies, while 3,000,000 more are reserved in the arsenals for emergencies.

MIKE CASSIDY'S TOOTHACHE.

(In 6 chapters, complete in this issue.) No. 1.



"I'll tie it to the dure, an' let some wan else pull it out!" (See No. 2, on page 13.)

World's Fair SOUVENIR PLAYING CARDS Views of all Buildings in Colors. A Regular Playing Card Price, by Mail, . . . \$0.50 With gilt edges, fancy case, 1.00 Agents Wanted. Address, THE WINTERS ART LITHO. CO., 1117 The Rookery, CHICAGO.

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Our Household.

MOLASSES.

The sweetest kiss I ever got  
I stole it from Merlinder.  
'Twas supper-time, and we-uns sot  
A-sparkin' by the winder.  
When evenin's shades are growin' long,  
For love what hour surpasses?  
And thar sot we-uns, lovin' strong,  
A-soppin' of merlasses.

With triffin' things a-rulin' fate  
Kin lead our path to his'n;  
The corn-bread slippin' 'roun' the plate  
Jest made me think of kissin'.  
Sez I: "Now, ain't that houn' of pap's  
More yallerer than brass is?"  
But all Merlinder said was, "P'rhaps,"  
Her mouth full of merlasses.

I looked at 'Linder. Oh, her eyes,  
How blue they wuz! How takin'!  
They filled my buzzum full of sighs,  
An' set my heart to achin'.  
"In old maid's lives no sweetness draps,"  
Sez I, "See my Aunt Cassy's."  
Merlinder choked and said: "How's craps?"  
Still soppin' them merlasses.

I felt my face a-gittin' hot,  
An' 'Linder, she jest giggled;  
An' I, a lovin' fool, jest sot  
An' blushed, an' blushed and wriggled.  
Sez I: "I'm not like other chaps;  
I'm greener than the grass is."  
An' 'Linder softly whispered, "P'rhaps,"  
Still chasin' them merlasses.

Down 'Linder's rosy, dimpled chin  
Long sweetnin' wuz a-drippin'.  
She smiled. My head began to spin;  
My heart was jest a-skippin'.  
I fetched one breath, an' give a jump,  
I trod on gran'pap's glasses;  
But me an' 'Linder wuz a lump  
Of love and of merlasses!  
—Samuel Minturn Peck, in Louisville Courier-Journal.

FALL STYLES—CHILDREN'S DRESSES.

**H**AVING the pleasure of looking over a drummer's samples, I can say that the wool goods for this fall have never been more attractive. Plain effects are to lead. In colors, bronze-green, always a loved color for fall, takes the lead. Navy blue and black will also be very popular.

Braid will trim everything, from all shades of one color to black, and gilt. White suits trimmed with gilt braid will be very suitable for early wear, and serve for evening house gowns during the winter. Made in the Eton jacket suit, it can be varied with waists of different colors, made of silk or crepe de chine.



FIG. 1.—CHILD'S DRESS.

Many are taking advantage of the late sales of summer silks with a view to using them for house waists.

Some society young ladies produced the most beautiful evening gowns from the cotton crepon now being sold for fifteen and twenty cents a yard, in very delicate shades of lemon, green and lavender. The

skirts are a long, straight, full skirt, the waist in bebe style, with a fall of deep lace from the neck over the shoulders. The sleeves are one enormous puff to the elbow, made to hold its place with crinoline. A straight band of velvet around the waist, with a lover's knot and ends behind, while a donkey's-ear bow is placed on the left shoulder. The dresses have the effect of expensive material, and the girls look lovely in them, needing nothing else but their fresh young faces to make perfect pictures of themselves.



CHILD'S DRESSES.

The picturesque dresses for little girls in this issue are not difficult for any one to contrive, and are very desirable for house wear. The skirts always plain, unless a narrow ruffle finish is liked. In Fig. 1 the wrinkled sleeves are very stylish, the shirred neck becoming to any little face, and the braiding in gold braid upon the corners of the deep collar giving a very effective finish. A skirt of soft flannel or cashmere should be provided to wear under the dress, and a good idea is to make them of the same material; then afterward the two can be utilized in the same garment as the child grows older.

With the large sleeves will arise the necessity of capes. The one we give can be made in heavy cashmere, lined with silk and trimmed with passementerie.

Bring out your satin and use this winter, as it will be a very general trimming. Satin sleeves can be put into your Henrietta and give it quite a new look.

As a trimming for black goods nothing is prettier than black silk bengaline. The black weaves this winter are particularly beautiful, showing in great varieties. Prices for the best are one dollar and upwards.

There is no economy in cheap black goods of any kind. Good black will last for years, and redye and make over for a long time. Put your money in a better body material, and curtail in vanishing trimmings. The only trimming that ever holds its own is lace. That can always be utilized, especially if of a good quality.

CHRISTIE IRVING.

PICKLES.

In choosing cucumbers for pickling, they should be well sorted, keeping, as far as possible, one size together. The very smallest ones can be bottled for special uses, and those of a little larger size for constant use. All must lie for awhile in brine, making it stronger for the larger-sized ones. I have usually left them over night. In washing your pickles, take care not to bruise them, or to break the little bumps all over them, as this tends to making your pickles soft.

As my pickles have always met with favor and always kept nicely, I will give my recipe exactly. After allowing them to remain over night in brine, transfer them to clear water in the morning until you are ready to begin. Then place grape leaves and a lump of

alum the size of a hazel-nut in your kettle (I use the old-fashioned brass one, but a porcelain one will do) and put in two thirds water and one third vinegar in as large a quantity as you wish to use; I do not handle more than the kettle half full at one boiling. Then let them just scald, shaking them about to have all accommodated.

In another vessel heat plain vinegar scalding hot, but do not let it boil. Pack your hot pickles into jars or bottles of quart size. I put in as I pack them a tea-

spoonful each of celery-seed, black and white mustard-seed, white sugar, one little red pepper, a piece of horse-radish, and ground mustard, one teaspoonful. Then fill up with the hot vinegar, and seal immediately.

If my jars have no tops, I use sealing-wax poured on a piece of new muslin; clap it over the mouth of the bottle, and put a layer of cotton batting over that, and then another piece of muslin, and tie down tightly with the selvages. I use this same method to put them up in gallon jars, and have had them keep nicely.

I quit using spices in my pickles a great many years ago. Cloves always make them black, and we like this way much the best.

If you have large quantities to put up, you can use the gallon jars very successfully.

For several years I put them down in brine, and pickled them when wanted.

If sugar is disliked, leave it out; but we put some up both ways. Martynias are nice pickled the same way.

Grapes can be pickled in bunches by laying them in jars and pouring hot, spiced vinegar over them.

But what is the use of living in an age of modern improvements unless you avail yourselves of them. Unless you raise your own cucumbers, it is cheaper to buy those our grocers offer, which are put up in kegs. If your family is small, buy only a small quantity. They are very nice and come either sweet or sour.

The California fruit put up in glass is really not any more expensive than when you try to do it yourself, if you must buy everything, and it is always to be depended upon.

Except in localities where fruit is scarce, it is foolish for a housemother to overwork only that her cupboards may be full. If you have fruit of your own in abundance, it ought to be garnered somehow, and one can often change one kind for another with a neighbor.

BETTINA HOLLIS.

Agents for this paper make money, and lots of it. Write for terms.

AN ARTISTIC INNOVATION.

Among the artists in Paris there is a recent tendency to revive Bible stories and translate them into the costumes and conditions of to-day. Never before had stay-at-home Americans so fine an opportunity to study this tendency as in the fine arts palace at the world's fair. Two canvases are there which a year ago attracted paramount attention in the Parisian salons, L'Hermitte's "Friend of the Humble," which shows Christ supping with modern artisans, and Beraud's "Descent from the Cross," where the crucifixion is taking place on the heights of Montmartre in the midst of a crowd of French men and women such as we see to-day.

Of these two paintings, L'Hermitte's is much more satisfactory. His working-people are picturesque, as is sure to be the case in exact proportion as fashionable dress is impossible, and Christ has not been deprived of the dignified drapery with which we are used to seeing him clothed. Beraud has to contend with the fact that a crucifixion in the suburbs of Paris is a most unlikely event at the present time.

A striking picture of this class is "The Host," by Jacques Emile Blanche. The scene is a modern Parisian dining-room. In the background is a sideboard, such as may be found in the home of any family of moderate means. The table is set so that the figure of Jesus, sitting at the head, is between the sideboard and the table, facing the observer. The folds in the table-linen are very realistic. Bread and fruit, conspicuously oranges and lemons for the sake of their color, are arranged for the meal. A child sets at the right hand of the sacred guest, and several men and women stand about the room in polite attitudes. Jesus wears a blue robe. His face is serious and unpleasantly sickly.

Leaving the French department and going to the German collection, we find an example in the work of Fritz von Uhde, who has been considered the most successful of all the artists trying this experiment. Several years ago he painted "Christ Blessing Little Children," which won a high degree of fame on account of its fine technique and beautiful dramatic quality; but perhaps more because it presented the novelty of being a scene in the Champs Elysees, with little Parisian children under the blessing of the universal Christ.

Von Uhde's "Announcement to the



CHILD'S CAPE.

Shepherds" has no startling look of everyday modernism about it. They are shepherds of to-day; but shepherds of any time or country are picturesque.

In Norway's exhibit may be found "The Son of Man," by Chr. Skredsvig. This is a very large canvas, having for a background the mountainous scenery of Scandinavia. The principal group of figures is in the

middle distance, where the most important figure is an ordinary-looking man in a suit of clothes similar to the garments bought at "ready-made stores." He has his hands on the heads of two children; around him are the old and the poor. In the foreground an invalid is being wheeled in a little handcart, by a devoted relative, to the central person. Without consulting the catalogue for the name of this picture, an observer would be slow to give it the proper translation, and even the name would be puzzling without understanding the school of artists who are trying to paint a nineteenth-century Christ.

All these pictures have their merits, and the intentions of the artists are praiseworthy, but on account of the extreme difficulty of their aims and the prejudice induced by preconceived ideals, the public is hard to please.

Among the American pictures the one which seemed most closely related to this class is by Edward E. Simmons, "The Carpenter's Son." It pleases because the difficulties are avoided. The shop is just such a shop as might have been found in any country. The man and woman in the background are typical of any parents. The beautiful boy, healthy, although thoughtful, as he sits on the bench above the shavings, is just such a boy as might be loved in any land, and of whom might be expected divine possibilities.

KATE KAUFFMAN.

PICK-UP WORK.

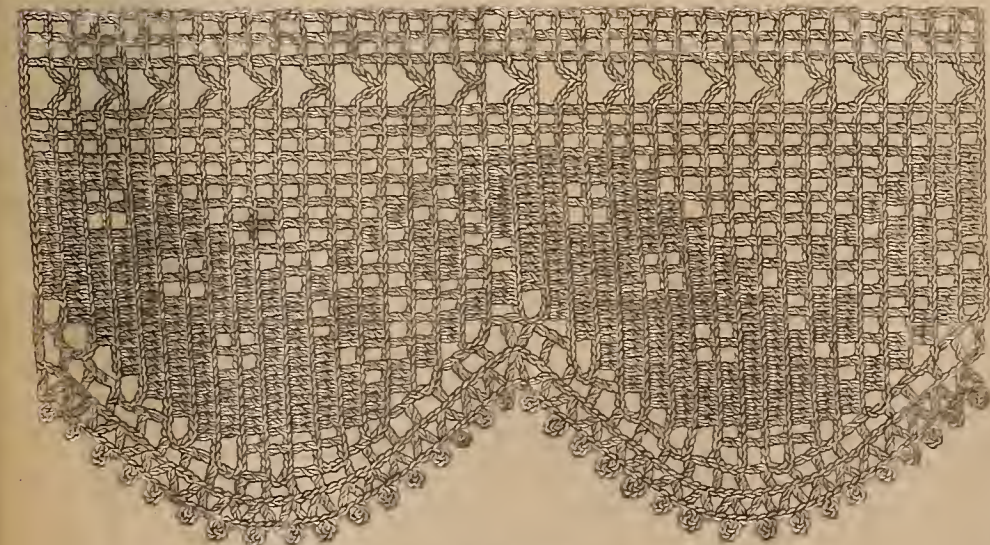
Nearly every lady now has her separate basket of little linen articles which, in spare moments and under her busy fingers, grow into beautiful decorations for table or toilet. This kind of work is commendable, for it brings into use good needlework, an art that a few years ago bid fair to drop out altogether; but as the needle paints with the shaded silks upon linen beautiful flowers, care must be taken to bring the shades as near to nature as possible.

Some of the table-centers are being simply hemmed and trimmed with edges of fine crocheted work. Among the English ladies cross-stitch is held in great favor, and as it holds first place as old-time needlework, it is not to be despised. Very pretty effects can be arrived at in its use upon various articles.

The holbein stitch, given on the doily for the water-bottle, is also very pretty. It is best to use canvas to work it, or use it upon Java canvas. If wanted upon linen, the canvas must be basted upon the linen and the threads drawn out after the work is completed.

Very beautiful articles in linenwork can be obtained with part of the pattern begun, so as to give the worker some idea of the appearance of the work when finished. The cost of the silks is very small, and much pleasure can be derived from it.

I fashioned some beautiful dollies from a pair of old, satin-faced drilling pantaloons in white, that were relics of the past. Perhaps some of you have the same, or vests of the material in your lumber-chests. The accumulation of years in some of our houses needs to be cleaned out, given away and utilized in some way. Then we should have less for moth and rust to corrupt and thieves to break in and steal.



CROCHETED TRIMMING.

The pieces done in rainbow work are particularly beautiful, the pattern being worked in different colors. The linen stamped and begun with material to finish can be bought for \$1.25 to \$1.50, according to size. Smaller pieces for less. Pretty tumbler dollies stamped on linen are five cents, and five cents' worth of silk will work them.

L. L. C.

GILT-EDGED BUTTER.

Why make inferior, low-priced and undesirable butter when by paying a little more attention to the details of butter-making, you might be noted for your gilt-edged butter? This desired result can be attained by carrying out the following instructions:

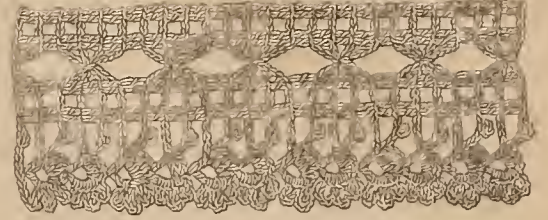
**CARE OF COWS.**—The dairy cow must be healthy, well fed, properly cared for, and kept in clean and comfortable quarters. The cows should be fed on hay, fodder, chop, made of ground wheat and oats, to keep up their strength, and on corn-meal or bran to increase and produce a good flow of milk. Plenty of pure water should be supplied, and salt should always be placed in boxes within the cows' reach, that they may eat as they desire it.

**MILKING AND CARE OF MILK.**—The cows' udders, before milking, should be washed off and wiped with a clean cloth. It is a filthy practice to wet the teats with milk while milking. The milker should work quietly and rapidly. The milk should be well drawn from the cows, as the last milk is the richest. Milk very readily absorbs odors, so the place where milk is kept should be free from all odors, pure, clean and well ventilated. After milking,

mixed by lifting from the bottom to the top of the can several times. Ripening of cream and "butter flavor" is now exciting considerable comment. The Danish, who are noted for their excellent butter, make their cream-ripeners, which also acts as a butter flavor, in this way: Take from the fresh milk, in the evening, of the best cow, as much milk as will yield two per cent as much cream as all the cream to be ripened; set this in ice-water over night and skim in the morning. About one o'clock the same day this cream is heated to 72° Fahrenheit and then set aside, covered, that its heat may be retained. The next morning this cream-ripeners is mixed with the can of fresh cream. This cream, if kept at about 65° Fahrenheit, and stirred about once each hour during the day, will be ready to churn in from twelve to eighteen hours. The time of the ripening depends on the degree of sweetness of the cream when the ripener is added. In summer, when the cream sours rapidly, the ripener may be dispensed with, but in winter, when it is so difficult to get the cream to sour, it should always be used. There ought not be more than forty-eight hours elapse from the time the milk is

a cool place for twelve hours. Then re-work, using a pressing motion of the paddle instead of a rubbing motion. Work butter as little as possible, just sufficiently to remove the buttermilk, as much working injures the grain.

**GRANULAR BUTTER.**—The term "granular butter" may not be understood by all readers. Recent investigation has proven that the butter grain, or granule, is covered



CROCHETED TRIMMING.

with a cheesy substance. This can readily be washed off if left in the granular form, but if the butter is churned in a mass this cheesy matter becomes incorporated with the butter, which can only be partially removed with working. To prepare the cream for granular butter its ripening is hastened by keeping cream at, or a little above, the churning temperature, and frequent stirring. When the cream is slightly acid it is churned at a lower temperature than acid cream. As soon as the butter granules are formed their temperature is at once reduced by putting them in brine of 55° temperature. If it is not desired to use the butter in the granular form, when it is removed from the brine, press together and it will form the finest, firmest butter.

**PACKING BUTTER.**—There are two ways of packing, in salt and brine. Salt packing: Place a layer of salt in the bottom of a large stone jar, and on this the butter, pressing it down with a wooden pestle. Then cover the butter with a cotton cloth wrung from brine. Upon this place an inch of salt. When more butter is to be added, carefully remove salt, rinsing off with water any salt that may have become scattered in uncovering, pack butter as before, replace salt, and so continue until butter is within two inches of the top. Then cover with the brined cloth and add sufficient salt to fill the jar, after which cover with heavy paper, pasting paper down around the edges. Keep the jar in a cool place.

**Brine packing:** Place the butter in rolls or layers in a jar, putting weight upon butter, and cover it with a strong brine. To make brine, to each gallon of water use one pint of salt, half a teaspoonful salt-peter and one half pound of white sugar. When other butter is to be added to the jar, pour off brine, and replace when butter is in jar.

**MISCELLANEOUS.**—If the cream of farrow cows and fresh ones is put together it must be thoroughly mixed by pouring from one vessel to another several times, or in churning the butter from the fresh cows will come first, leaving the cream of the farrow cows unchurned in the buttermilk.

If a cow is milked too near calving the milk will have a saltish, bitterish taste, and the butter will not come in churning. This milk is really spoiled, therefore unfit for use. As some cows' milk remains good to near calving, and others' is bitter, perhaps three months or more before, a test must be used to decide when the milk is no longer in proper condition for use. This is the test to apply to decide the milk's fitness for use, both before and after calving: Take new milk, boil it. If it thickens or curds it is not good, and should not be used.

SOPHIA N. REDDIN JENKINS.

LIFT YOUR HAT TO HER.

Lift your hat reverently when you pass the teacher of the primary school. She is the great angel of the republic. She takes the bantling fresh from the home nest, full of pouts and fashions—an ungovernable little wretch whose own mother honestly admits that she sends him to school to get rid of him. The lady who knows her business takes a whole car-load of these anarchists, one of whom, single-handed and alone, is more than a match for his parents, and at once puts them in the way of being useful and upright citizens. At what expense of toil, patience and soul-weariness. Lift your hat to her.

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CENTER OF MAT FOR WATER-BOTTLE, ETC.

the milk should be carefully strained in well-scalded vessels and placed where it will cool rapidly. The greater the temperature (so it does not fall below freezing) between the milk and the surrounding medium the sooner the cream will rise and the more there will be of it. Indeed, in summer if the separation of the cream from the milk is not hastened, the cream is mostly lost, as the milk sours before the cream rises. A milk-room in which is a shallow tank or box holding cold or ice-

drawn until its cream is churned, and if this time can be shortened to twenty-four hours the butter is better.

**CHURNING.**—The churn must be thoroughly scalded and rinsed in cold water before each churning. This both makes it sweeter and keeps the butter from sticking to its sides and bottom. The butter bowl and paddle should also be scalded and rinsed before using. The temperature of the cream for churning should be about 62° in winter and 58° in summer, to produce granular butter; to produce the ordinary lump butter the temperature may be a little higher. If the cream is too cold for churning, place the cream-can or churn in hot water to raise cream to the proper temperature. If too warm, place the churn in cold water to lower the temperature of the cream. If making granular butter, when the butter globules are the size of wheat grains, remove the dasher from the churn, draw off the buttermilk, and then fill the churn with cold water. With a perforated ladle remove the butter from the churn and place in a strong brine until each butter globule is coated with a film of brine; then remove from brine and use in the granular form, or press into a cake.

To make ordinary lump butter, churn a little longer than for granular butter, gather into a lump, draw off buttermilk and fill churn with water as before. Remove butter as quickly as possible, as lying in the water it destroys the fine flavor of the butter. Salt the butter by adding one ounce dairy salt—one ounce is two even tablespoonfuls—to each pound of butter, if for present use; if for packing, use more salt. Work the salt into the butter, draining off the buttermilk as it accumulates. Then cover with cotton cloth, wrung from brine, and set away in

water, in which to place the milk, is most desirable. If this is not available, a good substitute is to put the milk in deep cans and lower into the well by a rope.

**CARE OF CREAM.**—If the milk is kept very cool most of the cream rises within twelve hours. A ladle should be kept in the cream-can, and every time new cream is added the cream should be thoroughly



THE MIGHTIEST WATER-POWER.

Boast not of the roaring river,
Of the rocks its surges shiver.

HOUSE CLEANING MADE EASY.

The very words house cleaning is enough
to turn the west wind of some households

If it is accomplished in a family of two,
and your husband stays down town to luncheon,

We describe now a family of six, father,
mother and four children, with one maid

We suppose that "Mrs. John" prepared
the breakfast on Monday while Bridget

This is one of our ways to make Monday
a less objectionable day. It is a part of

tacks in the carpet, but do not lift it. It is
ready for Wednesday, when with Bridget's

The dining-room is the most difficult of
all. If at any time "John" announces his

When the dining-room is done, the worst
part of this trying work is over. It will be

CHILDRENS' DISAPPOINTMENTS.
"They are so trivial; what do they amount

Everyone will have a heart full of sym-
pathy, and at the same time a twinkle of

"Oh, mama, mama, what a disgrace to
have a nigger in the family!"

How eagerly the brown eyes watched
for the home coming. At the first sight of

Her father, busy with other things, had
forgotten. Measure a "grown-up" sorrow

"Let me go, too," cried an eager little
fellow when he learned that paterfamilias

"No, you stay home and I'll bring you
some suspenders."

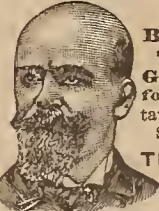
"Suspenders, whew!" thought the boy.
Even the elephant paled into insignifi-

Well, the show came to an end; the
father came home, and a "suspenders"

MARY D. SIBLEY.

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Selections.

THE GEORGIA MAN'S PREFERENCE.

I have been up to Chicago, where they're runnin' of the fair, An' there's no use of denyin' that it's mighty fine up there, With the Midway full of Arabs an' Egyptians an' Chinese, An' the agricult'ral buildin' with its forty tons of cheese, An' the ships that brought Columbus just a-standin' there to show How they used to cross the ocean sev'ral hundred years ago, An' the buildin' for the chillun', where they check 'em just likè trunks, And' the sleepin'-car exhibit, with chained lightnin' in the bunks, But in all the show an' wonders an' the glitter an' the whirl, I have never seen the equal of my little Georgy girl!

—Atlanta Constitution.

THE MAKING OF THIMBLES.

In the making of a thimble there are several operations, the blank passing into the cup and then the rolling on of the band. Then the thimbles, which have assumed a form warranting the name, are carried to the factory proper, and after burnishing, the more interesting process of knerling is performed. This knerling is the forming of the little indentations which receive the end of the needle and assist in pushing the point through the fabric. The cup is placed in a lathe, and the operator with a suitable tool knerls the end of the thimble. During this operation a peculiar and by no means unpleasant musical sound is emitted with varying tones. The point of the thimble being reached, a flat knerler finishes the side, and with a sharp-edged tool the polished cutting at the sides of the band is performed. Then on another lathe it is placed in a hollow block and the inside burnished. All the oil and dirt are then removed, and the thimble is polished and made ready for the market. Thimbles are made of various metals, those of gold naturally being prized highly, while one on exhibition at the world's fair of colored gold studded with a band of forty diamonds is fit for a princess. A monstrosity at the same exhibition is a thimble nine inches high and seven inches wide, the maker having at one time some idea of teaching an elephant the art of sewing.

HOW SEA-BIRDS QUENCH THEIR THIRST.

The question is often asked, "Where do sea-birds obtain fresh water to slake their thirst?" But we have never seen it satisfactorily answered until a few days ago. An old skipper, with whom we were conversing on the subject, said that he had seen these birds at sea, far from any land that could furnish them water, hovering around and under a storm cloud, clattering like ducks on a hot day at a pond, and drinking in the drops of rain as they fell. They would smell a rain-squall a hundred miles or even further off, and scud for it with almost inconceivable swiftness. How long sea-birds can exist without water is only a matter of conjecture, but probably their powers of enduring thirst are increased by habit, and possibly they go without water for many days, if not for several weeks.—Golden Days.

INTELLIGENCE OF THE HORSE.

Recently a New Jersey farmer, while passing along the street in New York, heard the well-known "neigh" of his good old horse, which had been stolen from his barn last winter, six months having elapsed. The farmer turned, and there, sure enough, was the affectionate old animal, hitched to a butcher's wagon. The horse had recognized his master, and gave him the accustomed signal. The farmer recovered his property and the thief was arrested.

"No living germ can resist the antiseptic power of essence of cinnamon for more than a few hours," is the conclusion announced by Mr. Chamberlain as the result of prolonged research and experiment in M. Pasteur's laboratory. It is said to destroy microbes as effectively, if not as rapidly, as corrosive sublimate.—Hygienic Review.

A NEW CURE FOR ASTHMA.

Medical science at last reports a positive cure for Asthma in the Kola plant, found on the Congo river, West Africa. So great is their faith in its wonderful curative powers, the Kola Importing Co., 1164 Broadway, New York, are sending out large trial cases of the Kola Compound free to all sufferers from asthma. Send your name and address on postal card, and they will send you a trial case by mail free.

A HINDOO HOTEL.

A high-caste Hindoo is a vegetarian, and so strict is he in abstinence from flesh food, that he will not eat anything which has in any way come in contact with any portion of the body of a dead animal. If possible, he will not allow himself to be touched by, and will not touch a person who eats meat. He regards the taking of animal life and the eating of flesh as heinous crimes. The Asiatic Quarterly Review describes a recently developed establishment at Woking, England, known as the Oriental institute, the purpose of which is to enable Hindoos who cross the sea to live in harmony with the principles of their religion and the laws of their caste. The building was erected on soil which was uncontaminated by the blood of animals. Separate and independent suites of rooms are prepared, each of which is a complete establishment in itself. Water is obtained from newly-made wells carefully covered, the water being drawn with buckets which have never touched leather or any other animal product. But fruits and vegetables of all kinds, grains, lentils and other pulses, and a variety of vegetable foods are furnished in abundance; but not the smallest trace of any sort of food substance which has lived and breathed is to be found about the place.

UNFERMENTED GRAPE WINE.

A lady who has successfully made wine from the following recipe for years, sends it in for the benefit of the household readers: "Take thoroughly ripe grapes, wash them before picking them from the stems, then take only the best ones and put into a sack made of stroug material, press all the juice from the grapes cold. Strain the juice and put it into stouge jars and let it stand in a cool place till next day. Then pour off carefully from the sediment. Put it on to boil, and skim it till it is clear. Set away again till next day, when the sediment will settle to the bottom. Theu pour off the clear juice, heat and bottle and seal air tight. No sugar is put in it until you use it, when it can be added if you wish it; but the tart taste is pleasanter in times of sickness. This is really unfermented wine, and is largely used for communion purposes.

GNAWING A FILE.

The rat who gnawed a file supposed himself to be making good progress, as he saw the pile of white chips slowly increasing under his labors. But when he found he had used his teeth up, it put a different phase on the operation. The Bible is a file on which many a rat has tried his teeth. They have been gnawing at it for generations, and making an abundance of chips, but where are they? They are in oblivion, where others of their imitators will soon be if they do not cease to make war against the Word of God, which "liveth and abideth forever."—Hastings' Birthday Book.

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EPILEPSY OR FITS. Can this disease be cured? Most physicians say No—I say, Yes; all forms and the worst cases. After 30 years study and experiment I have found the remedy.—Epilepsy is cured by it; cured, not subdued by opiates—the old, treacherous, quack treatment. Do not despair. Forget past impositions on your purse, past outrages on your confidence, past failures. Look forward, not backward. My remedy is of to-day. Valuable work on the subject, and large bottle of the remedy—sent free for trial. Mention Post-Office and Express address, Prof. W. H. PEEKE, F. D., 4 Cedar St., New York.

A Child's Love for a Doll. HAS OFTEN BEEN COMMENTED ON.—READ ABOUT THE NEW STYLE DOLLS. Modern invention is always making startling improvements, and the latest thing just brought out is for the young people who live away from the large cities. We have just secured sale of a new kind of dolls that are absolutely indestructible, and we show you in this cut here how they look; they are about 18 inches tall, and made of elegant colored goods. In getting this doll up we have overcome the great trouble of weight, which has made such a cost in the past when shipping by mail or express. These dolls are also constructed that you fill them with cotton, hair, or sawdust, sewing them up after receiving; it takes but a few minutes to do this, and you save nearly one dollar, and get a pretty, substantial doll for almost nothing. They will last for years and be a joy forever to any miss who desires a handsome doll as nice as her own sweet self. To introduce these goods at once, and add another million to "COMFORT'S" eleven hundred thousand circulation, we will send one doll absolutely free (all charges paid by us) to every three-monthly trial subscriber enclosing 15 cents; two subs. and two dolls 25 cts.; 5 for 50 cts. Many make money selling these dolls. Send one dollar for twelve, and try it. Address MORSE & CO., Box 231 Augusta, Maine.

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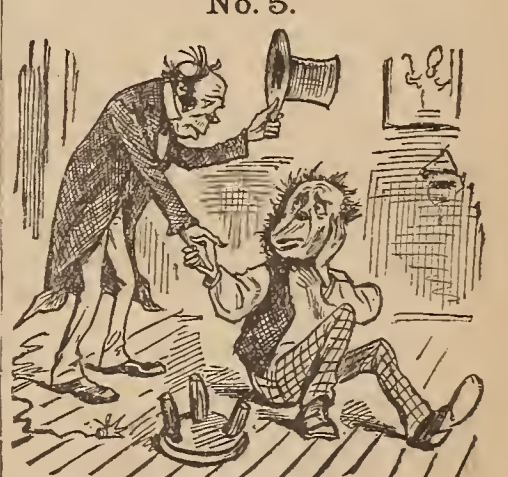
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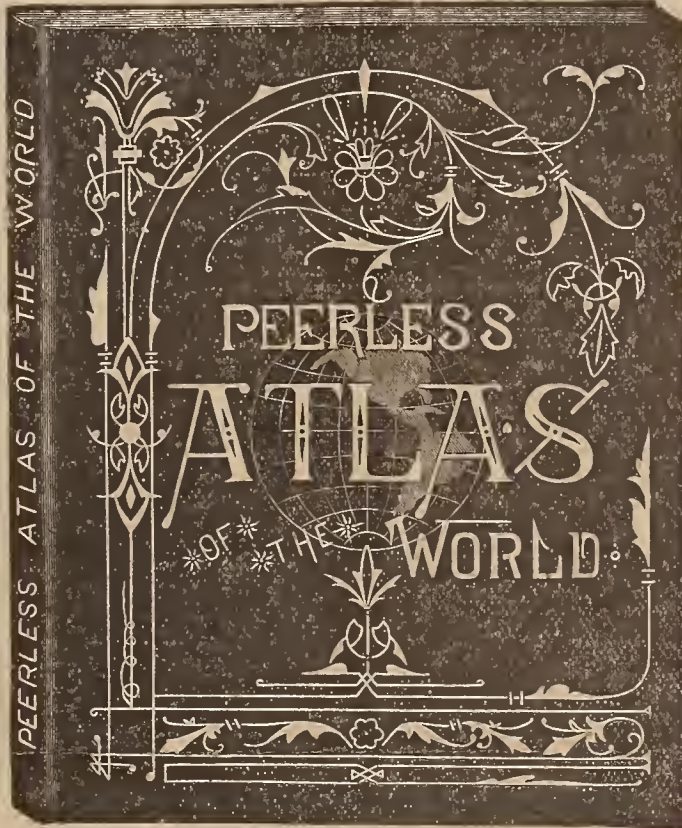
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