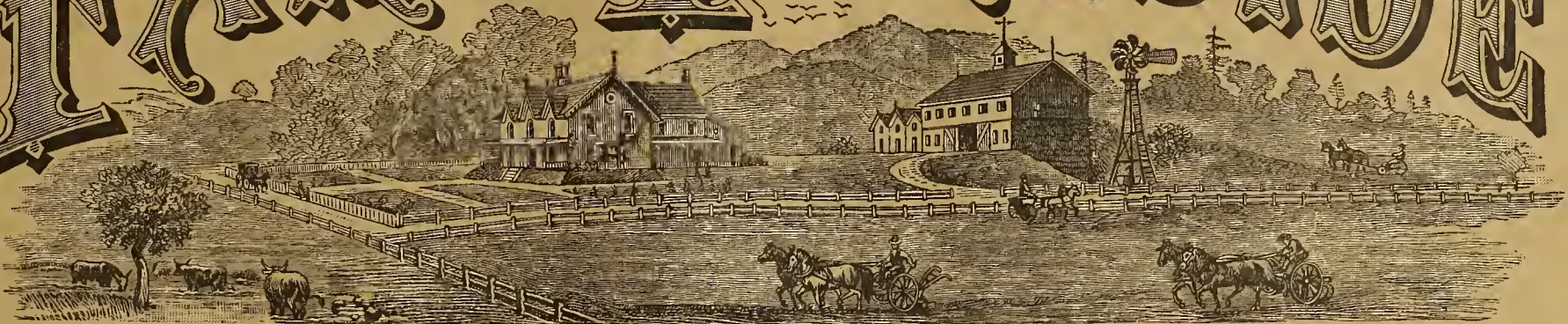


FARM AND FIRESIDE



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The Gold That Grows—By Lida M. Keck

People does a lot o' talkin'
'Bout the city's boolewards,
'Bout the streets as smooth as floorin',
An' them houses with no yards;

An' I s'pose they're good-'nough people—
Wouldn't wish 'em any harm—
But I can't quite think o' livin'
Anywheres but on a farm.

Course I know you'll be a-sayin'
That I'd make more money there,
An' that farm-folks ain't got nothin'
When the town-folks has to spare;

But that field o' wheat out yander
(Biggest crop I ever see!)
Ain't so bad, eh? An' I reckon
That's the kind o' coin fer me.

Talk o' gold! I'd ruther see it
Growin' there in that big field
Than to drudge up in the city
Fer the gold my work 'u'd yield.

An' that view there, 'crost the medders
To the shinin' little crick,
With the trees a-makin' shadders
Where the cows comes down to drink,

Sort o' preaches to a feller,
Sayin', "Don't you go away."
Some folks moves to town, an' likes it,
But I guess I'd ruther stay.

Then them black-eyed-Susans growin'
By the road there—see 'em, sir?—
Makes me think o' poor ol' mother—
Used to gether 'em fer her

'Fore she left—but, pshaw! these specks, sir,
Blurs when drivin' thro' the dust.
Hold the lines a minnit? Thank you.
Ain't afeerd o' nags, I trust.



CLOVER IN CORN

F. H., Princeton, Ill., writes: "I have read your article, 'A Clover Account,' in the *FARM AND FIRESIDE* of May 1st, and would like to know how you sow clover-seed in the corn-field. I sow clover with oats every spring, and turn it under in the fall."

In my article I referred to crimson clover, which of course my correspondent understands is very different from red clover, such as he sows in his oats. South of New York crimson clover is sown in late summer or early fall, generally in July or August, while in New York and some of the New England states it is sometimes grown from spring sowing. With me, however, its special value lies in the fact that it practically remains green all winter, growing late in the fall and maturing early enough in the spring, so that after having served for a cover crop through the winter, I can use it for soiling or hay, or turn its matured growth under in time to follow with some other crop. It thus does me a vast good as a fertility conservative, a fertility producer, a valuable food for my animals, and crowds out no other crop.

I sow from ten to fifteen pounds to the acre in the growing corn in July or August at the last cultivation of the corn; or if the weather is exceedingly dry at this last working I defer sowing, waiting for rain, providing it comes before the corn is too big for the horse to pass through it without breaking it too much. This cultivation is given for the sake of the clover-seed, but may incidentally do good to the corn also. If the clover is not sown until this later cultivation, the harrow is expanded to reach from one row to an-

other, and but one passage is made between the two rows, the harrow-teeth being set to run about two inches deep.

The seed may be sown with any seeder that throws the seed upward, and five spaces are covered at one passage across the field—that is, the one in which I walk and two on each side of me. If plenty of rain follows the sowing, a good stand of clover may be secured by sowing the seed after the harrowing; but as even the weather-men often fail in telling what the weather will be, I take no chances, and always have the harrow follow the sower. In dry weather this is important, for if the seed is not covered to a depth of unflinching moisture it may, and often does, sprout and perish.

At this writing (May 26th) my crimson clover has reached full bloom, many heads beginning to ripen. It has been blooming for two weeks. I have never harvested seed. I always buy good Delaware-grown seed for each year's sowing from that season's harvest. The price of seed fluctuates. I have bought it as low as two dollars and forty cents a bushel, and have paid as high as five dollars, and always consider it a most profitable investment.

Our friend's practice of sowing clover in his oats in the spring and plowing it down in the fall seems to be a waste of what might be of more value the following year as a feed than it is so young as a fertilizer, but the plan is so much in advance of the common one of stubble-land being plowed and left to the elements until sown to wheat that it must be commended.

W. F. McSPARRAN.

CRIMSON CLOVER AND COW-PEAS

The developments of the present season will have a tendency to increase to a great extent the growing popularity of these two hay and forage crops in the state of Delaware. The hay crops of red clover and timothy seem more and more uncertain every year. This spring a dry spell of nearly two months has ruined the late hay crop, and in many cases killed outright the spring seeding of clover and timothy. In spite of this, the crop of crimson-clover hay was simply magnificent, and the weather was ideal for curing it in best condition. Our best feeders now prefer well-cured crimson-clover hay to any other for cattle and working-horses. It was cut this season May 8th to 12th—just as it reached full bloom. My own crop from six acres was nearly sixteen tons of beautiful hay, perfectly free from weeds and well cured. This was grown on land which produced over one hundred dollars' worth of tomatoes to the acre in 1902, and the crimson-clover seed was sown among the tomatoes at the last working—about July 20th. The hay crop is now removed, in time to grow a good crop of field-corn on the same ground.

The three great points in favor of crimson clover are: First, the certainty and quick growth of the crop; second, the superior quality of the product, exceeding even red clover in nutritive qualities; third, low cost of seed and little labor required. The crop of crimson-clover hay is now (June 6th) ready to cut, and will soon be in market.

Cow-peas are another wonderful hay, forage and

[CONCLUDED ON PAGE 20]

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Mr. Greiner Says:

PEACH-TREE BORER.—A reader in Kansas tells me how much he thinks of his few trees in a limited home-yard, and what pains he takes with them. Among others he has some peach-trees that are just old enough to bear. A little way above the ground he found a lot of sticky, gumlike stuff exuding from the tree. He followed the hole in the tree-body with his knife, and finally discovered two whitish worms. Undoubtedly they were the larvæ of the peach-tree borer, which is often very destructive to young peach-trees. Usually the point of attack is just at the surface of the ground, where the bark is soft, but sometimes the insect gets into a crotch of the tree. The occupant of a modest suburban home who loves his few trees and vines has the advantage over the large grower in that he can keep in close touch with every tree, bush, vine or plant on the place, see where injury is threatened, and apply the proper remedies or means of protection. The large commercial grower often suffers a great deal of loss before he is even aware that anything is wrong. Probing for the peach-tree borer with a sharp penknife and a piece of wire is one of the safest means of protecting the tree, and is usually effective if attended to promptly—that is, before the borers have done serious harm.

CATALOGUE DESCRIPTIONS.—Our seedsmen deserve credit for the usually fair way in which they describe the different varieties in their catalogues. We know and expect that their purpose is to sell seeds and plants, and that in a general way they follow ordinary business methods, just as a grocer or druggist would. Any man who possesses an average dose of common sense expects them to speak more freely of the good points in an article they wish to sell than of its faults. In this direction all merchants are liable to go a little too far, and some of our seedsmen and nurserymen habitually, and almost all of them occasionally, do that. Strict business ethics and honor should not allow them to recommend to any customer a purchase which they know will not give satisfaction. Our Kansas City inquirer tells of the Loganberry, with which he has fussed for the past three years, with the result that the canes die down every winter and new ones sprout up in spring to meet the same fate the winter following. I have had this novelty in my garden. For a few years the canes were annually winter-killed, and finally even the roots gave out. The following is a catalogue description: "The Loganberry—A hybrid between the raspberry and blackberry. The fruit is as large as the largest blackberry, and is produced in immense clusters. The color is a clear, dark red. It partakes of the flavor of both the blackberry and the raspberry—mild, pleasant, vinous flavor, delicious and peculiar to this berry alone. Seeds, small, soft and few. Berries are very firm, and carry well. Strong grower; enormous bearer. Fruit ripens early, just after strawberries." Possibly the fruit is so good that it will pay us to take extra pains with it in giving winter protection, but the least we can expect of those who sell plants at twenty cents each is to tell us right at the start that this fruit is not a hardy one and that it is not suited to the wants of the ordinary cultivator in a cold climate.

PRAYING FOR RAIN.—A large portion of this state and other sections of the country are at the present time parched up under a most severe and extraordinary drought. From various places it was reported

that the ministers of the gospel were holding special services to pray for rain. In one or two such instances such prayers were apparently answered, and the rain came in torrents, causing floods and great destruction, so that it would have been in order to hold services praying for the cessation of rainfall. I do not imagine that the prayers of the faithful had anything to do with the rain or its stoppage. The good Lord no doubt knows what he wants without the dictation or interference of insignificant humankind, who do not always know what they want or what is good for them. When the natural conditions are right for rain, the Great Ruler will let it rain; when they are right for dry weather, dry weather it will be. The best help always is self help. Some of my neighbors have this year discovered that a hydrant in the strawberry-patch promptly and freely used is worth immensely more for the purpose of saving a big yield of strawberries in a dry time than a whole lot of the most fervent prayers for rain. An ounce of thorough cultivation does vastly more good in the same direction than effortless reliance on the help and protection of the Divinity. The heavenly injunction is to work and pray, the former being the chief and most essential part of the combination. This may not be orthodox, but it is good, straight common sense and business.

A FRIEND AMONG BIRDS.—Some evenings while standing on or passing over the bridge which spans Cayuga Creek on my premises I see numbers of night-hawks, or mosquito-hawks, sweeping swiftly through the cool evening air, sometimes so low as to come near the water's surface, then again high in the air. It is an interesting bird, this night-hawk, and yet one whose life-habits are not well understood by average country dwellers. Many people fear it as a hawk, and imagine that it is an enemy to chickens, pigeons or smaller birds. In reality the night-hawk is a most harmless fellow. It does not molest the farmers' or gardeners' crops in any way, as it has all it can attend to in filling its crop with insects. As an insect-eater it has no equal, surpassing even the voracious toad. In fact, this bird seems to fly with its immense mouth wide open, ready to gulp down any insect that it may encounter on the wing. When food is plentiful, the night-hawk fills its great stomach almost to bursting. Flying-ants and grasshoppers seem to be a favorite article of its diet, although potato-beetles, striped and spotted squash-beetles and a large number of other injurious insects have been found in the birds' stomachs. A Washington authority has this to say about this bird: "From these glimpses of the night-hawk's food-habits it must be evident that it is one of our most useful birds. Not only does it do a great amount of positive good by the destruction of enormous numbers of insects, but it is to be commended for its negative qualities, in that it not only does not destroy any of the farmers' crops, but does not even visit them or use them for nesting-sites. It never touches grain or fruit; it never troubles the garden, and in the orchard it only occasionally perches upon the branch of an apple-tree. It does not even ask a blade of grass with which to build its nest, for it makes no nest. It does not injure the grass by laying its eggs thereon, for its eggs are laid upon bare earth or on a rock. It does not molest poultry nor the nests of other birds. When we consider that this bird renders such a signal service to man, and asks nothing and will take nothing in return, it would seem as if we owe it to the night-hawk to afford it every possible protection."

Mr. Grundy Says:

WORKERS, GOOD AND BAD.—It is surprising how many people can come just short of almost perfect work. It is equally surprising how many very poor workmen and workwomen there are. One hires a fairly intelligent-looking young man or woman to do farm or house work, and rather flatters himself that he is in luck, but in a few hours he is astonished to learn that they do the commonest work in a way that any really intelligent person should be ashamed of, and that they have the capacity to look after only one thing at a time.

For instance, I engaged a girl to assist my wife with the housework, and she appeared to be a hustler. She was here and there and yonder in a wink, but that was all. In preparing a meal she would cook one thing at a time, letting the others wait until that was done. In preparing common vegetables for the table it was amusing to see her. She would pull up a handful of radishes, select those of fair size, and throw the rest aside; she did other things the same way. When they came to the table they looked like they had been prepared for a cow. In sweeping she would make the broom fly, and would have as much dust up near the ceiling as there was on the floor. We retired her as gently as possible, with our regrets, etc., etc., and secured another who had an eight-day-clock movement, but a knack of making each motion count for something. She took one step where the other girl took about six, but really accomplished about twenty times as much.

The first girl was born and raised on a farm; but a mortgage swallowed the farm, and the children hired to neighbors. I have had probably a dozen young people work for me who came from mortgage-wrecked and poor tenant families, and not one of the lot could do a good job of work of any sort without being repeatedly shown how and constantly watched. I have had two boys work for me who were the sons of good farmers, and both of them were first-class workmen. We had a girl for a short time who came from a family of wide-awake, intelligent people, and while she was a little giddy about beans, like most young girls, she truly was a jewel in the house. She had lots of good, plain common sense, knew how to go about her work, and how to finish it.

Nine times out of ten the best workmen and workwomen come from families that have succeeded financially, the poorest from families that are poor and stay

poor, which plainly indicates that home-training is one of the greatest factors of success in life. People who themselves are a dismal failure generally turn out children who are of the same class. The only way to make good workmen and workwomen of such children is to train them in a training-school. If they are raised to be slipshod, like their parents, they go into the lowest rank of laborers, if they do not become tramps. When I was a hired man on the farm I worked with men who were as careful of their employer's property as one could be. Then I have worked with others who dropped things just as soon as they were done using them, and left them to go to ruin. I do not recall a single instance where one of this latter class ever accumulated any property for himself, while I do know several of the others who are now well to do in life. The man who has a large family of children need have no fear of their future if he will train them to thoroughly do whatever work they undertake, to take good care of their tools, and to save the pennies. Such children are bound to climb up in the world, and if the parents live to see them well along toward middle life they will be more than glad that they took the time and pains to start them right and to keep them right when they were little fellows.

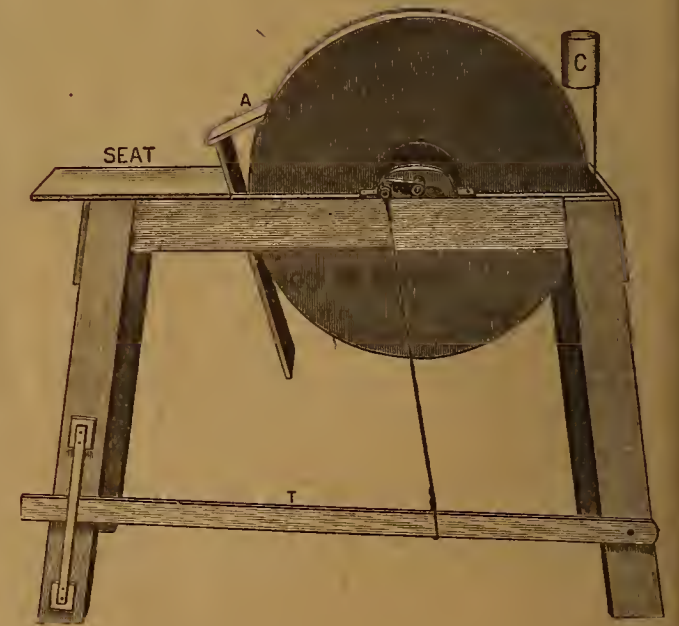
THOROUGH WORK AND NEW METHODS.—It pays to do things thoroughly while one is about it. Many a time when rushed with work I have been tempted to give things "a lick and a promise" and let them go. But if one will look over his own experience he will find that it is the thorough work that pays, whether it is planting a crop or setting a hen. From the largest to the smallest matter, thoroughness pays. Another thing: Almost every man can make more or less of an inventor of himself. I never do a job of work without asking myself if there is not a better way of doing it—a way by which I can save labor or time. Quite a number of times I have found far better methods of doing common things than I had been used to. The test of value of a new invention or method is its saving of time or labor. An invention that adds to one's work or care is of no value, in fact. An invention that is difficult to manage or uncertain in its work is of little value. Many times a new method seems like it must be perfect, but a little practical test proves that it is sadly lacking. I am not so young and active as I once was, and I am using my brain more to save muscle and time, especially the former. I made a little discovery last fall that I counted excellent, and I told it to a little group of neighbors while chatting one day, and one of them said that he had used that method a great many times.

"Why didn't you tell us about it?" I asked.

"Oh, anybody can find such things out for himself," said he.

I afterward learned he knew nothing about it. There are thousands of such "smart Alecks." It was this: When one is grinding scythes and other like tools, a little sand applied to the wet grindstone every few minutes will make it sharpen the tool much quicker. That is a very simple matter, and probably there are lots of people who know it, but there are lots who do not. If I had known it twenty years ago it would have been the means of saving me many an hour's hard, tiresome work, and I never would have worked with a dull tool.

I give a sketch of my grindstone-frame. I have always had to do my own turning and grinding, and I used to stand on one foot and pump away with the other until I ached in every joint. Finally I set my brain going on the matter, and evolved the frame shown herewith. Since it was finished I have sat down and rested while grinding. The sketch shows plainly how it is built. It is all wood except the rod connecting the treadle and crank, which is No. 9 wire. The frame is fifty inches long, thirty inches high and nine inches wide. The seat is shown in the sketch. The splash-er, A, is a strip of board fastened close to the stone, to prevent water being thrown on the operator's legs. The treadle, T, is a strip one by two inches square, and is attached to the leg of the frame



with a half-inch bolt. The connecting-rod is bent around the treadle loosely, so it can be moved forward or backward to suit the operator. A piece of lath, with bits of wood under each end, nailed to the leg forms a slot for the treadle to move up and down in. C is the water-can at the back of the grindstone. There are what are called bicycle-mounted grindstones on the market, but when one has a stone he dislikes to throw it away to get one that is easier to work. Such a stone mounted in a frame as here described will prove as satisfactory as a bicycle-mounted one. Put a little sand on the wet stone every minute or two, letting only enough water drip on it to keep it damp, and you can put an edge on any tool in a very short time. In order to make a smooth edge, finish without sand and with a good flow of water.

FARM THEORY AND PRACTICE

HOW MANY ACRES?—The relative merits of small and large farms receive much discussion. The man who grows asparagus or celery on a few acres, getting cash receipts greater than those of the owner of a large farm, may be very sure that no man needs fifty acres of land in a farm; but every one should be able to see that the most desirable size of a farm depends upon the man, the character of the soil and the nature of the products adapted to the farm. Ten acres may be enough, and on the other hand a thousand may not be too many. It is a waste of time to discuss any fixed number of acres as the correct number for a profitable farm. It is my observation, however, that many farms are too large to be handled well with the cash capital and the labor available to the owner. There is lack of thoroughness on American farms, due in part to the inability of the owner to give sufficient labor and fertility to each field. Dependence upon a favorable season to overcome neglect in preparation of land, in tillage or in seed is very common. When a soil is thin, and both seed and cultivation are only moderate in quality, farming becomes a lottery, with a chance to come out ahead one year in ten, more or less. With proper care a rich soil will make comparatively few failures. As farms increase in size, the percentage of neglected acres shows a tendency to increase.

VALUE OF LAND.—An acre of land in a farm one hundred miles from a city may be worth three or four hundred dollars for agricultural purposes only. If it gives a net profit in potatoes or some other such crop of fifty dollars two years out of three, and grows clover the third year, it is worth the sum named, basing values upon income. Such an acre of land or such a field probably was rich to begin with, and its physical condition has been given close attention. It has drainage, it has decayed vegetation in it to hold moisture, and it gets as nearly perfect tillage as can be given. In the same farm other fields may not have any value, if value is based upon net income for a term of ten years. It is an interesting mental exercise to place valuations upon each field according to the actual net profit obtained, and the results are apt to be surprising.

THE BEST FIELD.—In a majority of cases there is a "best field" in the farm—the most dependable one for the production of the crop that brings the greatest income. Its soil is naturally good, and its care has been good. Best of all, it has been able to care for itself. The trouble with much land is that it has sunken to the point where it is not sure to help itself when it gets a chance. Clover, heavy sods, catch crops to make humus—all these are not sure. The land is given a chance so far as time and seed go, and fail to improve it. Not so with the fertile field. It is up to the point where it is pretty sure, and so it helps itself to stay above that point.

HELPLESS LAND.—The biggest consideration in American farming to-day is that of putting and keeping land in such condition that it can produce humus for itself when given a chance. The soil falls below that point through too much cropping, lack of drainage, poor tillage or some other kind of mismanagement, and then the store of humus steadily declines, seedings to clover and grass are whole or partial failures, and matters grow worse year after year. The soil that is in good physical condition produces humus for itself whenever it has opportunity, and it is the old law that unto him that hath shall be given. Usually it is only a matter of physical condition. It is only a comparatively small area of naturally good soil that will not supply itself with the needed organic matter to furnish fertility when it already has a supply of such rotted material to make it retentive of moisture while admitting the air needed for chemical changes in its store of plant-food. The fertile field can grow heavy sods for itself, and thus help itself.

MIDSUMMER SEEDINGS.—It is not difficult to get successful seedings of crimson or medium-red clover in July or August on land that is in prime physical condition. Available plant-food and a supply of moisture are the factors. Those who have had experience with only such soils commend such summer seeding to others who have soils deficient in moisture because deficient in humus, and failure results. As good clover as I have ever harvested was sown in August, but the field was fertile to begin with. A thinner soil may make a fine catch if the season supplies moisture in a nearly perfect way. Usually it does not. The land that most needs help is not capable of being improved by methods that make a rich soil yet richer.

LACK OF MOISTURE.—Ordinarily the failure of the clovers in corn, or after the removal of crops in June or July, is due to lack of moisture. In most soils there is not absolute lack of fertility so much as lack of moisture at some time during the rooting of the plant. If there were more fertility there usually would be more humus to retain moisture, and there would

All Over the Farm

be somewhat less need of water, anyway. Bearing in mind, then, that water is the biggest factor, there would be fewer failures in midsummer seedings if the tillage of the preceding crop or the preparation of the seed-bed were better, and if the seed were put into the earth in the best manner. If the seeding is in corn, tillage should have conserved all the moisture possible. At the last working of the corn half of the seed should be cultivated into the ground two or three inches deep, and the other half should be sown after the cultivator. If the ground is broken for a summer seeding to clover, the work should be done just as soon as possible after the preceding crop has been removed. Then the roller and harrow should be used over and over again. The desire is to make the ground so fine and firm that the next rain will make it thoroughly wet, and settle it so that air will cease to penetrate it freely. Then seed as soon after the rain

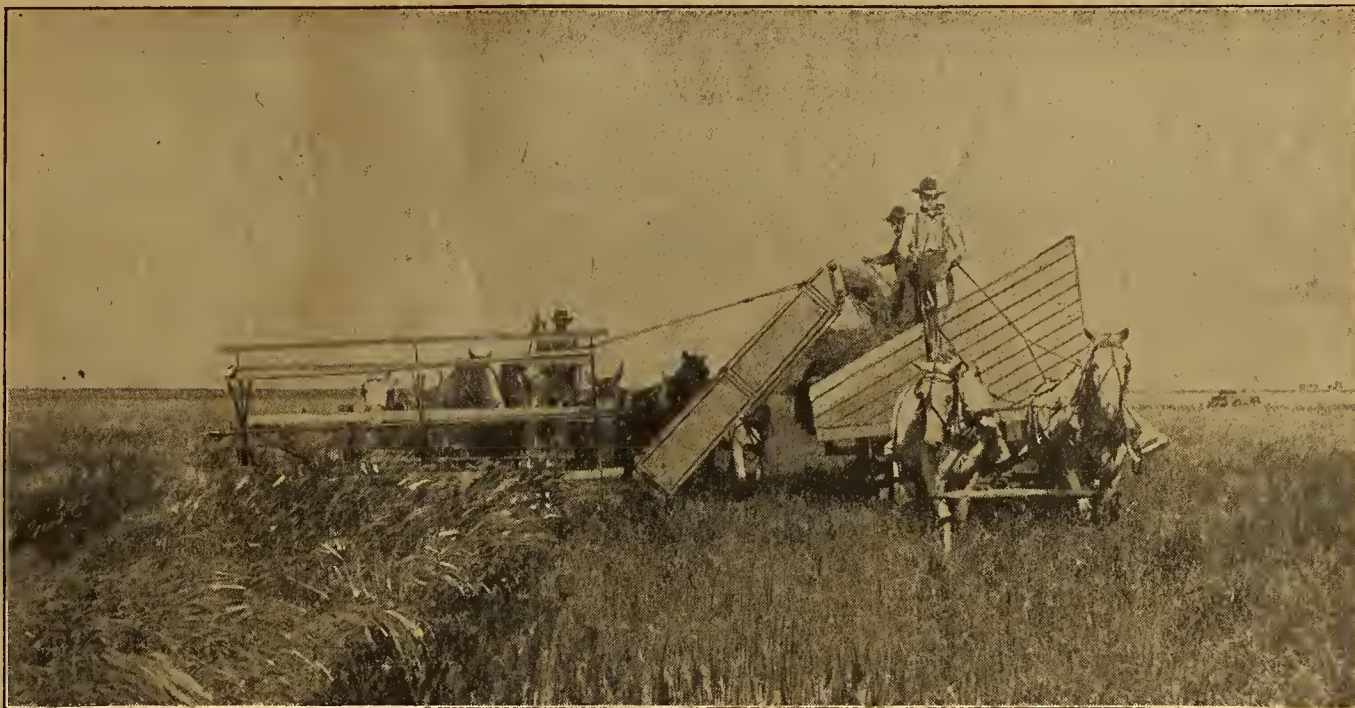
phoric acid and nitrogen were applied, made six thousand six hundred and seventy-two pounds to the acre. I have no means for estimating the value of the crop, but it is evident that if no fertilizer had been used on the land the crop would have been a dead failure. The result shows that Mr. Esty's land is badly in need of all the different kinds of plant-food. Now as to the questions asked.

You can buy the materials, and make a fertilizer suited to your soil and crops, for less money than you can buy a ready-mixed article of the same grade. Your experiment shows what you should buy, for where you applied the complete fertilizer you had an increase of nine thousand one hundred and three pounds of turnips to the acre, and where you used the incomplete fertilizer you had an increase of nearly three thousand pounds less than where the complete fertilizer was used. All the experiments at the New England stations have shown that New England soils in general are very deficient in potash, and the leaving out of the one hundred and twenty pounds of potash, worth say three dollars, cost you at the rate of but little less than three thousand pounds in the crop.

Mr. Esty says that he wants to plant corn on the plot where there was no fertilizer used, and beans on the other two, and wants advice as to the fertilization. The result shows very plainly that the plot that was not fertilized will not in its present condition grow corn worth gathering, and I would suggest the same fertilization that was so successful with the turnips. It is generally assumed that the turnip crop uses up all that is given it, and it is a very hard crop on the land. You want to plant beans there. Beans being a leguminous crop are supposed to be able to obtain their nitrogen from the air, and most of them except Lima beans will do so. Lima beans make no nodules on the roots, and gather no nitro-

gen from the air, hence they need heavy nitrogenous fertilization. On the bean crop I would advise the partial fertilizer of phosphoric acid and potash, as used in the experiment, and to leave out the nitrate of soda.

You ask if it will do to use potash alone on the land. No, it will not give the same results. I have always found that to get the best results with potash it is essential that it be used in association with a due percentage of phosphoric acid. Potash has mainly to do with the formation of starch in the plant, and from starch the plant makes its structure by various transformations. The phosphoric acid is mainly concerned with the transport of material for growth and in the ripening of the crop. Both are essential, and your soil is deficient in all forms of plant-food. But for the fact that the beans can get nitrogen from the air it would be necessary to give them a complete fertilizer, and in fact at the start a little will not be thrown away even on the beans. To bring up an abandoned farm you need to adopt a regular system of cropping, and bring in crops like peas and beans, that will help the soil and furnish food for stock, so that you can obtain manure at home to help out the fertilizers. The results obtained with grass by Mr. Clark, of Connecticut, show that a thorough preparation of the soil and lavish use of fertilizers pay remarkably well in the production of grass crops.—W. F. Massey, Editor of Practical Farmer.



A FOURTEEN-FOOT HEADER AT WORK

as the ground will bear up a team and while the ground beneath is yet too wet to stir. Sow half the seed, harrow it in two or three inches deep, then sow the other half, and cover with a light smoothing-harrow. A roller, or even a plank-float, tends to make the land crust.

Much land can be seeded successfully to clover in the summer, but it is a waste of money to sow the seed where no effort has been made to have a supply of moisture to start the young plants. DAVID.

BRINGING UP AN ABANDONED FARM

Mr. Frank S. Esty, Rhode Island, says, "I have taken an abandoned farm, and want to get it in shape to produce paying crops of hay as quickly and cheaply as possible. What would you suggest, and where would be the best place to get the necessary fertilizer? How would it do to apply potash without the other ingredients? Some of the farmers here buy Canada hardwood ashes, and apply them to grass-land. They cost nine or ten dollars a ton delivered."

Mr. Esty states that his neighbors buy Canada ashes for nine or ten dollars a ton. It is to be presumed that they buy them for the potash they may contain. This is an uncertain quantity, and no one can tell the value of any lot of ashes without a chemical analysis. They seldom have over five per cent of potash, and may have less. Of course there is a large percentage of lime in the ashes, but one would hardly pay ten dollars a ton for lime when he can get it for one third that price. There is also a small percentage of phosphoric acid in the ashes, which in the presence of the lime is reverted or insoluble, and you can get soluble phosphoric acid for the same price. So it would seem that the value of the ashes on the farm is governed by the amount of potash they contain. If there is five per cent of potash in the sample, it means that there is one hundred pounds of potash in the ton. The commercial value of one hundred pounds of potash is about four dollars and fifty cents; hence, in the ashes at ten dollars a ton you are paying ten cents a pound for potash that is worth four and one half cents, and can be bought for that in potash-salts near the port of entry. The actual agricultural value of a ton of ashes will depend on the nature of the soil to which it is applied. The commercial value is not far from six dollars and fifty cents a ton, based on the commercial value of the contents, including lime. Bought solely for potash, you are paying more than double their value when paying ten dollars a ton.

Mr. Esty gives the result of an experiment made with French turnips on a sandy loam soil. He used an acre divided into three plots of equal size. On plot No. 1 no fertilizer was applied; on plot No. 2 he applied six hundred pounds of acid phosphate, one hundred and twenty pounds of muriate of potash and one hundred and eighty pounds of nitrate of soda to the acre, and on plot No. 3 he applied six hundred pounds of acid phosphate and one hundred and eighty pounds of nitrate of soda to the acre. The test plot without the fertilizer made two hundred and fifty pounds to the acre, showing that the land was very poor; the second plot, on which the complete fertilizer was applied, made nine thousand three hundred and fifty-three pounds to the acre, and the third plot, where only phos-

Announcement of Immigration Contest

As stated in our last issue, June 15th, the \$5,000.00 Immigration Contest closed June 25th, and the fiscal year ends June 30th.

The names of the prize-winners will be made known at the earliest possible moment, depending of course on the extent of time necessary for the government to make its report. **The ports at which immigrants may enter** are Baltimore; Galveston, Texas; Key West, Miami and Tampa, Fla.; Boston and New Bedford, Mass.; New London, Conn.; Newport News, Va.; New Orleans; Philadelphia; New York; Portland, Maine; Portland, Oreg.; Port Townsend, Wash.; Providence, R. I.; San Francisco; Honolulu, Sandwich Islands; San Juan, P. R., and through Canadian ports. From this you can see that it will take the government some time to get the information from distant points and compile it in the form of a report in proper condition to send out. We believe that it will take the whole month of July to accomplish this work, and you should not expect us to be able to give the results of this contest much before the **August 1st or 15th** issues of the FARM AND FIRESIDE.

Gardening

By T. GREINER

WHAT BETTER CROP could you select to plant on a freshly cleaned up fence-row than potatoes? I have never found anything to beat them for subduing a neglected strip of land where weeds and briars have had full sway for years.

AN ASTER-ENEMY.—In the Middle and Southern states there are large black beetles that come in swarms during August, and in a comparatively short time often completely eat the petals out of asters, gladioli, dahlias, etc. What remedy can be used for them? Has any reader used slug-shot or any other poison for them with any degree of success?

THE CABBAGE-MAGGOT continues to be very destructive this year. By leaving plants in cold-frame, growing them to large size, with plenty of elbow-room, I succeed in getting the stem so large and tough that the danger of destruction by maggots is greatly minimized. And yet with this enemy it will not do to trust too much to chance. Tobacco-dust used freely on and about the plants proves one of the most effective fly and maggot repellents that we have.

SKIRRET is one of those odd garden vegetables which are sometimes inquired about, but which seem to have very little practical or commercial value. I had a few plants of it in my garden last year. When the patch was plowed recently I gathered up a few clusters of the rather slim roots and tried them raw. They have a very fine flavor, strongly reminding one of carrots, but more delicate and pleasing to the palate. Unfortunately there is not enough of it to satisfy the taste of a hungry person. I will try to find a mess, and try them cooked like carrots.

POISONS FOR THE POTATO-BEETLE.—A reader asks whether it is safe to use Paris green on potato-vines. Of course it is safe, provided it is put on properly. If used in water, as a spray, and strong enough to do the work promptly (as I like to have it), Paris green is liable to do some injury to the foliage. Lime should always be used in combination with Paris green; and so long as we use the lime, why not better add the copper sulphate, and spray with Bordeaux mixture and Paris green? It makes thorough work of protecting the vines against insects, and against disease, too. In place of the Paris green, however, I prefer paragne, or green arsenoid, which remains much longer in suspension.

THE EGG-PLANT, as I have often stated, is not only profitable and highly satisfactory, but also easily grown when you once have secured good plants and know how to take care of them. I have no assurance of success without spraying, but I have to spray a good many things in the garden, anyway—potatoes, grapes, melon and cucumber vines, etc.—and every time I have any spraying to do the egg-plants get a dose with the rest, which is only a few minutes' work. Thus my egg-plants receive usually more attention in the way of spraying than any other crop in the garden, and the plants are not liable to suffer much injury either from beetles, bugs or blights.

THE STRIPED BUG.—Mr. Woodworth, the Perfection plant-protector man, tells the following story about the striped beetle: "I find the striped cucumber-beetle goes in colonies, the same as the ladybug. They first seek the wheat-fields. When the wheat begins to head out, they leave for pastures new. They send out scouts, the same as honey-bees. When they find a patch of melons, they make a peculiar grating sound with their wings. These scouts go back to the colony and report. If there is not much dew, they move after night or in early morning, and stop on one side of the patch and go to work. I spent fifty dollars for lime and all sorts of preparations to protect my vines before I got to using protectors. Now I can go to sleep at night, knowing my work will not all be in vain." I give this without comment.

EARLY ONIONS.—I have a few chance onions growing in a strawberry-patch. They are white, and at this writing (early in June) are already far advanced toward maturity, being two inches in diameter. They appear to be of the White Portugal type. I do not know how the seed or plants got there, or when they were started. It shows, however, that it is possible to grow very early onions in open fields by starting plants in the fall and wintering them over in open ground. This problem is worth further investigation, and whoever will solve it successfully will have the means of making early-onion growing very profitable. I still believe that the Prizetaker, large and sweet as it is, is as hardy as any of our ordinary onion varieties. Still the White Portugal type of onions may give us earlier onions in open ground.

DISSOLVING BONES.—One of our readers (F. B., Natrona, Pa.) has a lot of bones which he desires to dissolve if there is a practical way of doing it. It is an easy proposition if he has a lot of unleached wood-ashes, but even then it will take time. Stratify the bones and ashes in a barrel, and add water enough from time to time to keep the whole mass moist. In the course of six months or a year the bones will be softened and can be broken up fine with a mallet. The fertilizer-men's way is to dissolve the bones with sulphuric acid, but this is hardly safe for the average farmer to undertake. If the bones are old, and there is not much nitrogen left in them, they represent simply insoluble phosphate of lime, and the best way to break them up and get the plant-food in them in a form to become available for plant-nutrition by natural chemical action in the soil is to burn them in a "roast of rubbish," and apply the resulting ashes.

PLANT-PROTECTORS.—I have nothing to say against plant-protectors. They are a good thing, and I use them to some extent myself. It is an old plan. The common form of such protectors is a square frame (from eight to twelve inches) covered with wire screen or muslin, or even a pane of glass. By their use I can often succeed in getting my squash-plants through the period of danger unharmed, when without them almost every plant would be destroyed by the yellow-striped beetles. The man of the patented Perfection plant-protector, alias "Gold Mine," tells me that this year he has set out tomato-plants, cabbage, planted corn, potatoes, melons, cucumbers, etc., the first week in April. The soil was banked up around the protectors from the outside, to prevent cold air coming through underneath the protector. There were several frosty nights, the ground freezing quite hard outside, yet the plants came through in good shape, and now he expects to have ripe melons the last week in June, while his tomatoes, cucumbers, etc., are well advanced, notwithstanding the lateness of the season.

EGG-PLANTS FOR THE BORDER.—I was wondering this year what to put in some of my flower mounds and borders, also where to put the egg-plants for which I had neglected to make provision in my richest garden-spot. I finally concluded to use the egg-plants for the mounds and borders as an ornamental object, and at the same time utilize those rich spots of ground for a very practical purpose. I can hardly imagine anything more ornamental and more striking than a group of well-grown egg-plants—bushes of thrifty tropical growth and loaded down with those mammoth purple fruits—three or four of them of edible size at a time on each bush. In short, the egg-plant is the one thing above all others in the garden to combine the ornamental with the useful. In a year like this, however, when the plants are very scarce, and in some places unobtainable, I take especial pains with them, and good care that they are not exposed to dangers. I plant them in large wooden plant-boxes (four and one half inches in cube), and keep them growing in the greenhouse or in a frame, well-protected until they are of quite large size and not so easily injured by potato-beetles, which are especially fond of the egg-plant, and often come upon the plants in great numbers, doing them considerable damage even before the poison on them can take effect. Then along in June, when the soil is warm, and the weather warm and just right for the tropical, heat-loving egg-plants, they are taken out to their summer quarters, carefully planted, and sprayed at once. If the potato-beetle troubles the plants, I may use a little dusting of tobacco-dust, and this will drive them off. From all this my friends will understand why I think so much of the egg-plant, and why I feel that I must have them, no matter at what cost of care or watchfulness.

Fruit-Growing

By S. B. GREEN

SAN JOSE SCALE.—Z. W. A., South Carver, Mass. The twigs inclosed with your letter are infested with scale-insect, which is unquestionably what is known as San Jose scale. This is perhaps the most dreaded of all insects that infest trees in this country. The remedy has been referred to so often in these columns that it will be unnecessary to repeat it.

NEGRO-BUG ON STRAWBERRIES.—J. C. H., Sparta, Wis. The bug which you inclosed is known as the flea-like negro-bug (Corimelaena). They may be found on plants of all kinds, sometimes in considerable numbers. They suck the juice, but noticeable injury is rarely inflicted by them. Their most disagreeable habit is laying eggs on some of our small fruit, like the blackberry and raspberry, and if these are crushed in eating, a very disagreeable, bedbuggy taste is noticed.

PLANTING BLACK LOCUST AND HARDY CATALPA IN OLD FORESTS.—H. E. S., Camas Valley, Ore. The black locust and the hardy catalpa are both light-demanding-trees, and will not do well under the shade of other trees, and I doubt if you will be successful in getting a stand of them by sowing the seed among standing timber. The seed grows easily, and would undoubtedly start, but the trees would die out. In the case of standing timber where there is considerable light among the trees your suggestion might work out.

PLUMS FOR HIGH ALTITUDES.—W. T. R., Saratoga, Wyo. I think that some of the native Americana plums would probably grow in your section. Some of them do very well in Assiniboia, where the season is very short and the cold very intense. The hardiest of the named kinds with which I am acquainted are Cheney and Aitkin. If you wish to enlarge the list, and include some that require a somewhat longer season, but are hardy in Minnesota and generally more desirable than those mentioned, I would suggest that you try De Soto and Forest Garden.

FRUIT-TREES FAILING.—M. B. W., Fort Worth, Texas. I cannot understand why such fruit-trees as cherries, mulberries, plums and peaches so often fail with you, and think there must be some peculiar local condition. Is this a common complaint of fruit-growers in your immediate vicinity, or is it a special complaint of your own place? And may it not be due to poor soil-condition, as well as to improper varieties or lack of pollination? I should have to know more completely about the circumstances surrounding your orchard to answer you intelligently.

ROSE-WORM.—L. C., Alma, Mich. If you will send me a specimen of the worm that is injuring your roses, I think I can identify it. From your description I have an idea it is one of the foliage-eating worms, and that it will be readily destroyed by white hellebore and water sprayed on the foliage, using it at the rate

of about one ounce of hellebore to a little water, or mixed with a little flour. If you fail to get good results from the use of this material, I would suggest that you try strong tobacco-water, made by steeping the stems in water until about the color of strong tea.

SCALE ON ORANGE.—J. R. E., Baxter, Kan. The leaf from your orange-tree shows that it is infested with a common greenhouse scale, and the best treatment is probably to use whale-oil soap and water. In applying it, use a tooth-brush for scrubbing the branches and under sides of the leaves. This will loosen the scales, and permit the soap-suds to do its work in killing them. After this operation, wash thoroughly in clean water. It may require several treatments to clear the leaves entirely, but after you have once got ahead of the scale I think you will be able to keep it free by treating it once or twice a year.

CINDERS AROUND FRUIT-TREES.—F. S., Old Fields, W. Va. Cinders from a blacksmith-shop might be useful around fruit-trees or bushes to keep down weeds and to prevent the soil from packing, but of course they are not nice things to work into the land, and on that account I hardly think I should want to use them. I do not think they would be especially helpful in keeping insects away from the roots. Cinders from a blacksmith-shop are oftentimes a fairly good fertilizer if they are not too coarse, since they generally contain more or less of the sweepings of the shop, which are very rich in nitrogen. The cinders will not injure the growth of the trees, and they might possibly be somewhat helpful in keeping borers away from peach-trees.

BORERS IN APPLE-TREES.—H. E. M., West Warren, Pa. The best remedy in the case of borers in apple-trees is to look the trees over in the summer and dig out the borers. In addition to this it would be a good plan for you to protect your trees during June and July with a wash of soft soap, thinning with lime white-wash to the consistency of paint. This will have some effect in keeping the mature insect from laying its eggs on the trees. Where trees are badly infested, I think a very satisfactory remedy is the bisulphid-of-carbon treatment, which consists in using this liquid in an oil-dropper. After cleaning out the holes where the borers are found, inject the liquid from the oil-can into the holes, and then stop up the holes with a little putty. The vapor of the carbon bisulphid is sure death to the insects confined with it.

PLANT-LICE.—J. J. S., Becker, Minn. The leaves of your box-elder tree seem to be badly infested with plant-lice, and I think this is the sole trouble. I do not think the flies which you sent in the bottle had anything to do with the injury to the box-elder. If the foliage of this tree was sprayed with strong tobacco-water it would remove a good many of the lice; but this is a very considerable task, and I doubt if you will want to undertake it. It is probable that these insects, while very numerous this year, will not be so troublesome again for many years. I do not think they will kill the trees. I think I have never seen foliage as badly infested with lice at this season of the year as the specimens which you inclosed. If the trees were small, then spraying with tobacco-water would be quite practicable. I occasionally use tobacco-smoke on small trees by covering them with a tent and making a smudge of tobacco-stems under them. If you decide to make an experiment with tobacco-water, you should make it about the color of strong tea. The best thing from which to make it is tobacco-stems.

BORER IN ELDER—LICE ON ROSES.—W. M. B., Minneapolis, Minn. The borer that works in the stems of elder is very numerous in some seasons, but seldom does serious injury. The best remedy is to cut and burn the affected portions, or cut out and destroy the borers, as soon as the canes appear to be infested. You probably do not notice that there is anything the matter with the canes until they begin to wilt, when it is too late to save them. However, the Golden elder of which you speak is greatly improved by severe pruning, and I sometimes think that the best way of treating it is to cut it off at the top of the ground each season, when the new growth is of a brighter color than that on the older wood.—The rose-lice of which you complain are best killed by dipping the ends of the branches into tobacco-water, or by spraying this water on the plants. To be effectual it should be done consecutively for several days, but the tobacco-water should be made up fresh each time. I think the best way to make it is to pour scalding water on tobacco-stems, and use it at about the color of strong tea. The slugs will also be destroyed by this treatment, but for them a somewhat better remedy is to spray with water containing a small amount of white-hellebore powder, say at the rate of a heaping teaspoonful to a gallon of water.

RESURRECTION-PLANT—PLANT-LICE.—V. B. C., Sleepy Eye, Minn. There are several so-called resurrection-plants, but the one that you have is probably the common form, called Rose of Jericho. This so-called plant, which is similar to others of the same name, is not a plant at all, simply the dried seed-cluster which when dry closes together, but when wet opens out and appears green. When rolled together the seed-cluster breaks off the old plant, and is easily rolled along by the wind on the surface of the ground. When it reaches a moist situation, it opens up, and the seed starts into growth. It is a misnomer to call it a resurrection-plant, for it is really simply a seed-cluster. Your disappointment in this matter is nothing uncommon, as I have frequently met others who thought as you do, that it could be started into a new plant. There are other resurrection-plants, some of which will really grow when put in a moist place. Such are desert plants, that dry up in dry seasons.—The green lice which trouble apple-trees will generally be found collected together at the ends of the new growth. The best remedy for them is strong tobacco-water, made by soaking tobacco-stems in hot water. If the leaves are not too much curled, so as to protect the lice, this material may be sprayed on the tree with good results. If the leaves are much curled, a better way is to dip the branches in a basin of liquid.

CORN IN SUMMER

IT MAY be a repetition to call attention to the feeding of corn after the warm season opens, but the less corn and more meat from now on, the larger will be the number of eggs. Corn is fattening and heating, and while it promotes animal heat in winter, at a time when warmth is required, yet it is the most unsuitable of all foods when cold weather passes away, as it is a carbonaceous food and deficient in mineral matter, though a small allowance daily may do no harm.

MARKETING DUCKLINGS

Young ducks should be marketed when they weigh about three pounds, and they may be sold either alive or dressed, the best prices being obtained for the dressed carcasses. The proper time for selling young ducks is in the summer, and they should be plump and fat, but they must be hatched early or they cannot attain that weight before prices begin to decline.

ANIMAL-MEAL

The ordinary ground meat, also known as "animal-meal," contains meat from which all fat has been pressed under superheated steam. It also contains a large proportion of bone. Considering the price at which it can be purchased, it is a cheap and excellent food. No food is better than ground meat for geese and ducks, and it may be advantageously used for chickens. It is not equal to fresh-cut bone, but where meat and bone cannot be conveniently purchased from a butcher, ground meat may be substituted.

EXCELLENCE OF VARIETIES

The inquiry is frequently made in regard to the superiority of certain varieties of a breed, such as whether Brown Leghorns are superior to the White or Buff varieties, or Barred Plymouth Rocks compared to the White. Color of plumage is a matter of preference only. There is no difference between White and Barred Plymouth Rocks in laying qualities or hardiness. Some object to white birds because the plumage is more easily soiled, while birds of buff color seem to "show dirt" less. There is no advantage possessed by any kind so far as color of plumage is concerned.

SUMMER GREEN FOOD

If a small patch of ground is sown with Essex rape, it will serve the fowls with green food during the whole summer. Whether they are on a range or confined in yards, the rape will serve as a change and an excellent addition to the ration. Belonging to the cabbage family, rape may be substituted for cabbage, and it can be grown at one third or less than one third the cost of cabbage, a very small plot providing a full supply, as it will grow a new crop as fast as it is used. The seed can be had of any seedsman, and rape is worth a trial for any one who is interested in poultry.

SELECTION OF BREEDS

Amateurs who are not familiar with the merits of the various breeds find it difficult to make a selection. Everything depends on locations and conditions. The best breeds for confinement are the Brahmas, Cochins and Plymouth Rocks, the first two breeds being easily kept within bounds by a fence only three or four feet high, but they readily become overfat if too highly fed. The Leghorns and the Minorcas are excellent layers, but prefer a range. They have large combs, which are liable to become frozen if the winter is severe. The Wyandottes are of medium size, and are excellent for nearly all purposes, but are not as active as Leghorns or as contented as Brahmas. They have rose combs, yellow legs, and are excellent layers. The different varieties of Wyandottes—White, Black, Silver, Golden and Buff—differ only in color of plumage, their characteristics being the same. The best breed for laying is not so much in the breed as in feeding.

PRECAUTIONS AGAINST DISEASE

To an observer, scaly leg is simply a roughness of the legs, but it gradually accumulates until the legs are double the ordinary thickness. This accumulation of scale is the work of millions of parasites, which store up matter on the legs as industriously as the coral insect works on the reefs; yet the closest examination will not reveal their presence. Other kinds of parasites cause skin and bowel diseases and other ailments, while lice take advantage of the work of the parasites, and assist in enfeebling the birds. There are so many different kinds of lice and parasites that the closest vigilance is necessary in order to keep the poultry-houses and birds free from attack. Fortunately we can partially prevent the difficulty by the free use of kerosene, carbolic acid, whitewash, etc.

Poultry-Raising

By P. H. JACOBS

No matter how free from attack the birds may appear to be, the precaution should never be neglected. At this season, when thousands of young chicks will soon be hatched, the field of operations is broader and the liability to attack increased; hence, if the chicks are to be raised they should be examined frequently.

FRESH AIR FOR CHICKS

We believe it was Helen Hunt Jackson who described the wonderful cure of an invalid by simply swinging a hammock outdoors and sleeping in it in all weathers at night to get the benefit of fresh air. This is a favorite cure of doctors for consumptive patients, and when it becomes a fad for poultry-breeders to give their flocks fresh air at all times we will have better poultry and more of it. A little later in the season people will complain that their young flocks are at a standstill, that they are not growing, and report mysterious deaths. If a strict watch was kept on the size of the growing flock, and the room increased in proportion to the increase of growth, there would be no check in growth from overcrowding. When chicks are six weeks old they should be taught to roost in open coops, and if these coops are mov-

the street, which usually they claim, they will get along finely. Chickens that mingle, with other chickens, young or old, always have sense enough to know when to come home to eat and roost. Sometimes one loses them by some one opening a stable door and trolling them in for his own use, but these cases are rare, and one must expect some losses along with the profits. If you are ever in doubt which you must raise, garden or chickens, on a village back yard, let the garden go, and raise chickens. Garden-stuff is cheaper than chickens.—Twentieth Century Farmer.

PROFITS AND BREEDS

The best way to enjoy keeping fowls is to have a small book in which to insert all the receipts and expenses. It is an excellent mode of learning what can be done and how to economize. A large profit can be made with a very small flock—that is, while the receipts may not be large, yet the comparative profits on capital invested will be surprising. A small flock pays because it consumes much waste material that would otherwise give no return, while a home market always exists as long as eggs are used in the household; and it may be added, fresh eggs will be had instead of the candled stock usually sold as such. There is also much pleasure derived from managing a small flock, and all the mem-



A MIXED FLOCK

able, so much the better. It is easier to move the coop to fresh grass than to clean it out, and there is no danger of bad smells from the former method.

The poultry-house is better to have a rest some time this summer. It should be thoroughly disinfected, whitewashed, and treated for lice about the time the hens have stopped laying and are beginning to think of molting. The hens turned outdoors to roost will store up energy for the winter, and strength for eggs later on.—Wallace's Farmer.

RAISING CHICKENS IN TOWN

It surprises one to see how many chickens a woman or any person, even a child, can and do raise on a bit of ground no larger than a good-sized table-cloth. In the cities many persons raise chickens for their own use in small inclosures, and a few raise them to make a small profit. We know one little girl who preferred to take five hens and a rooster in place of a skye-terrier and a white kitten her papa said that he would buy for her. She feeds them the table-scraps, with an occasional feed of whole corn, and takes all care of them herself. She has forty chicks so far from her five hens, twenty now almost ready for a restaurant-keeper near by, who has promised a good price for them. Besides the pleasure it affords her to be the owner of so much live stock, it is teaching her habits of saving, of looking out for the comfort of something by way of profit, of doing work at regular hours.

In the small city inclosure for chickens extra care is necessary in the matter of cleanliness, and not crowding too many together. If the yard is well drained, and fresh gravel put on the bit of ground given over to their use, disease-germs will be carried away from it. Use slaked lime often and plentifully, vermin-powders to keep down mites, and all the extra time to clean up that you can, and the chickens will breed healthy and thrifty year after year in these small pens. I have known them to have fewer diseases in these places than on farms.

One can raise chickens in plenty in small back yards of the village home. With an alley to take a run in, or even

bers of the family become interested. The enjoyment will be greater if some pure-bred variety is used, the aim being to excel in all the requirements of the breed. Children make pets of the fowls and chicks, and that is a point in favor of the flock which should not be overlooked. Some breeds can endure close confinement without injury, as they have been bred for that purpose. The Brahmas and Cochins may be mentioned as examples. They have small wings and heavy bodies, cannot fly over a low fence, and are contented on a limited area of ground. If the active breeds, which delight in foraging, such as Leghorns and other small fowls, are selected, they will attempt to escape at every opportunity, and if they fail they become discontented unless kept actively at work in some manner. They must be fed so as to work diligently for all they receive. If not so managed they begin to pull feathers from each other, and learn other vices which render fowls unserviceable and unprofitable. Good results are obtained from birds kept in confinement, but it would be well to consider the breeds and endeavor to select one that will adapt itself to circumstances.

INQUIRIES ANSWERED

FEEDING DUCKS IN SUMMER.—E. L., Easton, Pa., asks "how to manage ducks in summer after they have ceased laying." The best plan is to turn them out on a field, giving no food at all, as ducks will consume not only insects, but also grass and young weeds.

LOSS OF CHICKS.—J. R. S., Warrenton, Va., states that "nearly all of his young chicks die. He feeds mostly corn-meal." In reply it may be stated that corn-meal is a very incomplete food for chicks. They should have more variety, allowing almost anything that they will eat. Also examine for lice.

LICE ON TURKEYS.—E. B. M., Wheaton, Ill., asks "how to prevent the large lice on young turkeys." Such lice come from the turkey-hens. Apply a little melted lard on the hens as soon as they hatch, and also a drop on each chick. The best preventive of lice of any kind is the advertised lice-killers.

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Live Stock and Dairy

WHERE THE COW GETS HER START

SOMETIMES we do not give enough attention to the starting of the cow. We think any kind of a place will do, and any kind of rations will be all right, so that the calf reaches the age when she takes her place among the milkers of the herd. If she simply lives, all right; that is enough.

This is a mistaken idea. The calf should be fed and treated just as fairly as any other member of the herd from the start if we would realize anything worth the while from her. What does this mean? It may best be explained by giving once more the methods of the best growers of calves. According to up-to-date methods, the calf when say four months old is given a place with other calves in a little yard, if it be summer-time, where it may get fresh air and sunshine. It has its due ration of milk, care being taken never to overfeed, and being careful always to have the milk warm when feeding. This is followed by a ration of bran or buckwheat shorts, with a little oil-meal mixed. This is given dry, and not with the milk ration, and is followed by a ration of hay. During the time of feeding the calf is kept in stanchions, to prevent sucking other calves and to insure its getting its fair share of the milk, grain and hay and no more. When the weather is hot, the calf should be kept supplied with plenty of fresh water, and in fly-time it must be given a place of escape from its tormentors. Thus fed the calf will grow up to be a cow. It will go out to pasture in the fall like any cow, but will be fed all the first winter grain and milk if possible. This plan will insure a cow that will do business if there is any business in her.

E. L. VINCENT.

FOR THE BEST MILK

During the last few years there has been such extensive discussion through the daily press of the many shortcomings of our dairy products that the growth of their consumption has been interfered with. As the city milk-consumer sees his glass of milk on the table, his mind by a process of reversion brings up all he has read and heard about uncleanness, adulteration, preservation, germs, bacteria and all the rest of it, so that if the milk is drunk at all it is taken with a reservation of confidence that generally makes a second glass impossible. The milk may be, and doubtless is, as pure and uncontaminated as its unavoidable association with man will permit it to be; but the consumer takes the benefit of the

terial changes becomes very manifest. With the most careful milking by hand, surrounded with the most complete sanitary conditions, absolute purity is impossible; whereas in instances, where the milk is exposed to less favorable conditions, the removal from purity increases rapidly. In either of these cases the mechanical condition of the milk is improved if it is run through a centrifugal separator immediately after milking, thus removing all solid foreign matter as well as reducing the bacterial content. That this reduction may be maintained it is of course necessary, as I have said, to hold the milk at a temperature below the cultural demands of the reduced germs, as they increase under favorable conditions with marvelous rapidity.

It is understood, of course, that after separation the milk and cream are again combined, for the process of separation is intended to be only a method of purification.

W. F. McSPARRAN.

VETCH, COW-PEA AND SOY-BEAN HAY AS SUBSTITUTES FOR WHEAT BRAN

The following is a summary of Bulletin No. 123 of the Alabama Experiment Station:

"The object of the feeding-experiments herein described was to ascertain whether hay made from hairy vetch, cow-peas and soy-beans could be advantageously substituted for most of the wheat bran in the ration of dairy-cows.

"The following values to the ton were used in calculating the cost of food: Wheat bran, twenty dollars; vetch hay, ten dollars; cow-pea hay, ten dollars; cotton-seed, twelve dollars; cotton-seed meal, twenty dollars; cotton-seed hulls, five dollars.

"Vetch hay proved fully equal in feeding value to a similar weight of wheat bran. By this substitution the cost of the food required to make a pound of butter was reduced twenty-five per cent, which is equivalent to a monthly saving of twenty-two dollars and twenty cents in a herd of twenty cows.

"With the vetch ration the cost of food for one pound of butter averaged ten cents in contrast with thirteen and four tenths cents when wheat bran was fed.

"The waste in feeding vetch hay was with most cows about six per cent of the amount offered, and with cow-pea hay about sixteen per cent; the latter residue, being useless, is charged as a part of the ration.

"That portion of the cow-pea hay actually eaten proved fully equal in feeding value to a similar weight of wheat bran.



HAMPSHIRE YEARLING EWES

doubt, and the milk trade does not grow commensurate with its relative importance to human food.

I do not mean at all that the consumer should remain in ignorance of any faults the milk might carry, for the careful man will not take into his mouth those things offensive to his stomach; but I do mean that the producers of the milk and the venders of it should so hedge the sensitive fluid food around with safeguards and precautions of cleanliness and purity that the digestive agency of confidence should accompany it from the cow to the consumer. To have this we must have the clean, healthy cow, the clean stable, the careful, tidy milker, clean pails and cans, absence of dust and odors, thorough cooling and low temperature.

As milk is the most perfect food for man or animal, it also is the most favorable medium for the development of bacterial growth, and while the common idea that all bacteria are harmful is very erroneous, the conditions that as a rule encourage the multiplication of the harmless ones encourage equally the harmful ones. One of these conditions is warmth, and therefore the necessity of reducing the temperature to guard against bac-

Charging the cows with all the cow-pea hay offered them, we find that cow-pea hay had eighty-six per cent of the feeding value of wheat bran, one ton of this hay being equal to one thousand seven hundred and twenty pounds of bran.

"When wheat bran was worth twenty dollars a ton, cow-pea hay was worth seventeen dollars and twenty cents, and vetch hay twenty dollars.

"The monthly profits on a cow were four dollars and sixty-five cents on the vetch ration, and four dollars and thirty-five cents on the cow-pea ration.

"One of the Jersey cows used in this test produced butter at a cost for food of only eight and one third cents a pound when fed on the vetch ration.

"Running cow-pea hay through a feed-cutter did not decrease the waste in feeding this food.

"Four and one half per cent more butter was produced with soy-bean hay than with cow-pea hay if we take account of the portion of each actually eaten; however, a larger proportion of the coarse stems of the soy-bean hay was uneaten.

"When corn-hearts were substituted for wheat bran, the yield of butter was increased by eight per cent."



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Live Stock and Dairy

FISTULOUS WITHERS AND POLL-EVIL

FISTULOUS WITHERS, frequently called "thistelow," is a running sore that follows the formation of an abscess or "gathering" in the region of the withers of horses, or in the upper part of the neck just in front of the withers. A poll-evil is a similar condition occurring in the region of the poll.

CAUSES.—Fistulous withers and poll-evil are caused by specific germs gaining entrance to the system, probably through the food or water, and locating in the regions above described, where they cause pus, or matter, to form, and thus produce an abscess. It is possible that they may be caused or aggravated by local injuries, such as blows or ill-fitting collars or saddles, hitting the poll against the ceiling, or from pulling on a halter.

SYMPTOMS.—At first there is a diffuse swelling of the withers or poll, usually on one side or the other; this swelling is often tender, and causes some stiffness in the muscles of the part. Later the swelling becomes more prominent in some part, softens, and unless opened, breaks and discharges pus, or matter. The sore thus formed is lined with a smooth "false membrane" that secretes pus and is very difficult to heal. Sometimes a fistula of the withers, or poll-evil, will discharge for a year or two, and frequently causes the death of the animal.

TREATMENT.—In the early stages it is often possible to cause their absorption or "scatter" them by bathing the affected part with hot water, rubbing and kneading the parts thoroughly, and applying a stimulating liniment, such as the following: Strong ammonia, one ounce; turpentine, one ounce; water, one ounce; linseed-oil, five ounces. This should be applied once daily until the skin begins to get sore, when it can be withheld for a few days, then repeated. Application of tincture of iodine and blisters are also used to "scatter" fistula and poll-evil.

After much pus, or matter, has accumulated it is impossible to "scatter" them, then they should be opened freely with a knife; good surgeons often dissect them out, at least so far as is possible. The incision should be made as low down as possible, to give free drainage. In most cases a cavity will be found with one or more "pipes" extending into the tissues. In case the bones of the withers are ulcerated they must be removed surgically. The cavity should be thoroughly cleaned out, and kept clean, all pieces of diseased tissue removed, and the cavity dried by swabbing out with absorbent cotton. Pure tincture of iodine should be injected once daily after cleaning and drying. A solution of one part of carbolic acid in twenty-five parts of water is good to clean it out. Pure turpentine can be used in place of iodine with good results in some cases.

Another method of treating after opening is to thoroughly swab out the inside of the cavity and "pipes" with a good liquid caustic, such as butter of antimony. In place of a swab, rags saturated with butter of antimony can be packed in the cavity and "pipes;" they should be removed in a few minutes. This destroys the "false membrane," which sloughs out in a day or two. The fistula should be washed out daily, a four-per-cent solution of carbolic acid used, and the parts kept clean. In using a caustic it should be used once carefully and thoroughly. Repeated use of caustics is injurious.

Rubbing with liniment or applying a light blister about the diseased part is often useful in assisting the healing process. Other good solutions used to inject into cavities for cleaning and healing are corrosive sublimate, one part, and water, one thousand parts; blue vitriol, pulverized, one teaspoonful dissolved in a pint of water, or a one-per-cent solution of creolin or similar coal-tar products.

In treating these diseases, a good syringe with a long nozzle that can be inserted into all parts of the fistula is essential. Showering the part once daily with cold water, with considerable force from a hose, and then rubbing briskly until it is dry, is often beneficial. It is important that the fistula should heal from the bottom; if the outside opening is allowed to close before the cavity has healed it will break out again.

Animals with a fistula or poll-evil should be well fed with nutritious food, and salted frequently. A tonic condition-powder is often very useful. The following is good: Sulphate of iron, one ounce; hyposulphite of soda, one ounce; saltpeter, two ounces; nux-vomica seed, one ounce; gentian root, two ounces. All should be well pulverized and mixed. A heaping teaspoonful can be given in the feed twice daily.—N. S. Mayo, in Bulletin No. 121 of Kansas Experiment Station.

COW-CATCHERS

If the census-taker when he was last around had gathered figures from producers of milk relating to their home consumption of it, I believe the results would have been surprising. In many families on the farms, even where a grand crop of boys and girls is being grown, the milk consumption does not go beyond a little milk or cream for the tea and coffee, for berries and for cooking. Why? It won't do to say the country people are not fully aware of the nutritive value of milk as a food, for as great readers as farmers are, they are sure to absorb some of the vast amount that is being written about milk. They know, too, that collateral with its food value it carries the recommendation of cheapness. Many farmers claim they cannot afford to eat eggs when they will sell for over twelve cents a dozen. Spring chicken, young pig and lamb are cut out of many rural bills of fare because they are "worth more to sell." Milk is rarely so on the general farm, and one word will in a large number of cases explain its non-use—dirt.

Very often, if the milker and cow-tender realized that the cow's surroundings and the care of the milk were below the requirements for producing a clean article of food, more care would be taken and conditions improved. But dirt that may not be visible to the eye nor manifest to the nose of the sloven may be so much in evidence to the sensibilities of the discriminating stomach and palate, that even an encyclopedic knowledge of the worth of milk as a food will not make it relished.

Soluble dirt may affect only flavor; visible dirt, as dregs in the bottom of the glass, is no advertisement for the drinker to take another glass.

Often the milk is no more unclean coming from a filthy cow-stable than the other food of the meal having come from the uninviting kitchen of a careless cook; but grosser foods do not have the delicate absorptive affinity for foreign odors that milk has, and they pass detection at the table. Men who travel know how often it is a vain thing trying to eat at a hotel where there is a suspicion of uncleanliness, and so in using milk—so much of it we have known to be suspicious that we partake of none.

Shall I interject a story? Once, when Governor Curtin of Pennsylvania with two fellow spellbinders were doing campaign-work, they were compelled to patronize an uninviting hotel for one night, and they came to breakfast with tired feelings in their appetites. When the waiter came for their order, the famous "war governor" said, "Why, you will please give me two boiled eggs with the shells on."

Mr. S. said, "Well, you may give me a potato with the skin on."

"Let me see," hesitated Mr. P.; "suppose you give me a chicken with the feathers on."

Let us therefore have the products of our dairies clean, and let it be known that they are clean and wholesome and fit for the food of man and the upbuilding of generations of American babies. Let us have it so clean and above any suggestion of taint that we and our children will want a second glass.

There is no doubt that the centrifugal separator is a cleanser and purifier of milk. It certainly removes any solid foreign matter that may have passed the strainers. This should be no excuse, however, for carelessness in handling milk that is to be separated, for such soluble impurities as have entered into solution in the milk will not as a rule be removed in the machine.

If the dairyman has clean cows in good health, fed wholesome food; clean, well-ventilated stables; clean, personal habits; clean pails and other utensils; aerates the milk as soon as drawn, and cools it to below fifty degrees, away from dust and contaminating odors, he has done enough to make his milk fit to drink.

Some milkmen will object to such plain talk as I have used about impure milk, on the ground that the city consumer may say, "Milk must indeed be open to question when an acknowledged dairyman comes out thus and exposes it." All milk is not impure; most of it is produced with the best of intentions. However, I would have it all so pure and sweet and inviting that the city dweller would turn from impure city water and drink more milk. W. F. McSPARRAN.

U S U S U S U

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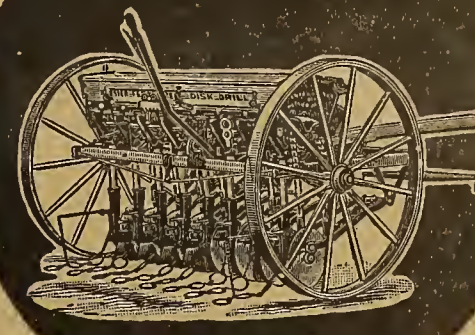
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The Grange

By MRS. MARY E. LEE

JUST AND EQUITABLE LAWS IN DANGER OF REPEAL

WELL-FOUNDED rumors are afloat that attempts will be made to repeal or weaken the Rawlings and Morganthaler laws. Both these measures were secured after a long and bitter fight by the grange. It will need the same bulldog qualities to defend them.

Briefly stated, the Rawlings law provides for the taxation of goods in the hands of the manufacturer. Before the enactment of this measure, machinery or other goods in the hands of the manufacturer was not subject to taxation, but the moment it passed into the hands of the consumer it became taxable.

The Morganthaler law provides for a tax-inquisitor, who seeks out and lists concealed property. Few laws are so just and equitable, and none have met with more bitter opposition.

That theory which seeks to exempt certain favored industries or products from taxation, which shifts the burden while not decreasing it, is vicious in principle and dangerous in policy. Every successful attempt weakens the notions of citizenship of the favored party, and creates hostility to the favored industry and distrust for the machinery of government in the masses who bear the extra burdens. Our loose tax-laws provide an easy escape for a very large per cent of property, classed as "intangible," while the heaviest burden rests on the poor and well-to-do classes, whose property is apparent. The aforesaid laws have added hundreds of thousands of dollars to the tax-list, but many hundreds of thousands more are concealed than have been brought to light. No system of laws has ever been devised that could reach the mass of intangible property. Every just and equitable law that has been enacted and that serves its purpose should be jealously guarded by the people. With every advance in civilization there arises need of heavier taxes. The very class that seeks to evade the just payment of its burden is the one that profits most from it. Let them bear their part.

Clark County Pomona has taken the initiative. Let every grange and farmers' club bring this matter before its members. If possible, see that candidates for the legislature will stand squarely against the repeal or weakening in any way of these laws. Talk the matter over with your neighbors, and be ready to make a stand for justice. Agitate, educate.

RESOLUTIONS PASSED BY THE CLARK COUNTY POMONA GRANGE

Resolved, That we believe the Rawlings tax-law is just and correct in principle, and we will oppose the repeal or weakening of the same.

Whereas, The Morganthaler law does not add anything to the tax-duplicate not already provided for by law, but it does authorize the appointment of an inquisitor to find property which may be hidden away or through negligence not reported or listed for taxation, therefore,

Resolved, That we will oppose the repeal of said law.

POSSIBLE DELIVERANCE

The recent massacres of the Jews at Kishineff aroused the sympathy of the civilized world. Hundreds of thousands of Jews will leave Russia, and if they find a home and political and religious freedom in another land, many thousands more will leave inhospitable shores for new homes.

The Jews are an industrious, home-loving, God-fearing, homogeneous people. Farming communities that are now experiencing a dearth of laborers would do well to offer inducements to these people to settle among them. The Jew loves his own roof-tree, and will best serve all interests if he owns his own home. Many of them are poor, however, and could buy only small pieces of land—from ten to forty acres. They have large families that farmers could employ. Their love of home would make this population of young people fairly permanent. Help could thus be obtained indoors and out.

With the present scarcity of labor, and its high price, farmers can well afford to make concessions. If a number of farmers would unite and offer concessions, it might result in a large influx of labor into the community. The Jew is bound to come to America. Sooner or later there will be a Jewish problem, as there is an Irish one. Fortunate indeed will it be for the nation if this new population is scattered over our farms, far away from the congested centers where vice and avarice have sway, and doubly fortunate will it be for the farmers to

have a source of labor-supply somewhat adequate to our demands. We have been so long dominated by the labor trust that a possible deliverance through the Jews is a "consummation devoutly to be wished for."

THE OBSERVATORY

Get rid of your prejudices.

Win the heart, and you will convince the head.

The grange is the watch-dog of farmers' interests.

The heaviest tax the world pays is the tax of ignorance.

A good dictionary well used is an indication of intelligent membership in a grange.

Even as cheese is a bait for mice, so is a useful grange the bait for membership of the best class.

Constant watchfulness, combined with wise civic ideals, is the only safeguard of our institutions.

United, enlightened public sentiment can overcome jobbery and corruption. Right is might, and must eventually win.

If conditions do not suit, change them. It is the limitations of the individual rather than of the locality that make the environment.

Principles are eternal as the hills; only our interpretation of them varies. Free and powerful is he who sees them in a brighter light each day.

The churches, schools and clubs of a community are what the predominant element want. If it is content with little, little will it receive; if it demands much, it gets much.

Let a special committee be appointed from each grange to solicit members at your field-meetings. To avoid unpleasant contingencies, make out a list of desirable members beforehand.

Since our political and financial welfare are indissolubly bound together, it follows that we must safeguard our political interests with the same forethought and care we do our financial.

He who takes his notions and opinions as he does his name, from his fathers, must be narrow and bigoted. What yesterday was liberty, to-day is intolerance, and to-morrow will become tyranny.

Never pick a wild flower unless it will add to the beauty and perpetuity of the plant or give happiness to some one. The ruthless plucking of our native flora is leading to the extinction of many of our choicest plants.

Village-improvement societies in our section are waging war against the filthy nuisance of spitting on the street. Even men who pride themselves on their civic righteousness need a law to prevent them from committing a crime against decency.

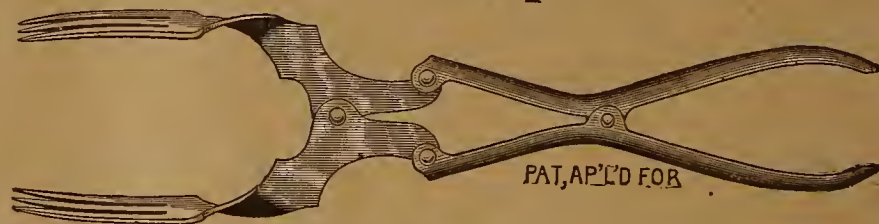
Ceres, Pomona and Flora can find ample employment in promoting esthetic notions about the adornment of our lawns and outbuildings. A community filled with beautiful homes has a high financial rating, to say nothing of the esthetic.

Never let your zeal for membership overshadow the pride you have in the worth of the grange. The grange is destined to play a greater part in the drama of internal affairs in the next ten years than ever before in its history. Let us have members who will stand by principle, and not be led away by every puff of wind. Cherish your grange as you do your home.

"Let us convince those who represent us of our integrity and ability to care for ourselves. Let us make use of the opportunities at our door. We have the telephone at our desk, the mail at our door. Now let us pave the way for the trolley-car by improving our methods of farming, that capital may be induced to invest. Then, with every farmer's gate a depot, there will be no stale fruit for the consumer, but berries with the morning dew yet upon them, and the bloom and fragrance of the apple, peach and plum as pleasing as when rocked by the autumn winds."—From report of D. S. Davis, Lecturer Pomona Grange, Ohio.

Handy Household Articles

"Marvelous Duplex Fork"



Just what is wanted for handling boiled or baked potatoes, boiled eggs, baked apples, hot biscuits, doughnuts or fried cakes. The forks are always open and ready for use, and by a slight pressure on the handles anything can be easily taken hold of without fear of breaking or crushing, and without burning your hands. The forks being plated, require no scouring, and when once used they become an indispensable article. Order as No. 822.

Farm and Fireside one year and Marvelous Duplex Fork, 45c., by mail, post-paid Or given for sending ONE new yearly subscription, not your own nor any member of your family

"Lamp=Chimney Stove"

Invaluable for its convenience and economy. Made of bright brass, compact and ornamental.



To heat curling-iron, use as shown in cut, and the handle of the curler will be thoroughly protected from the heat. To heat water, use as shown in cut. One of the most economical and useful household articles ever offered to the public. Indispensable in the sick-room. Heats water for shaving in a jiffy. Doesn't smoke the cup.

Order as No. 823.

Farm and Fireside one year and Lamp-Chimney Stove, 40 cents, by mail, post-paid

Or given for sending ONE new yearly subscription, not your own nor any member of your family



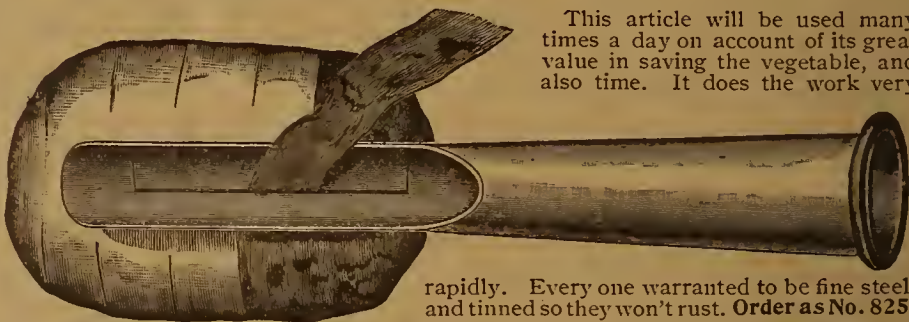
"Useful Cooking-Knife"

For turning pancakes, eggs, omelets, fish, meat, potatoes, hash or croquettes. In warming potatoes, the shape of the knife is such that the work can be done in less time than with a table-knife, as a cutting edge four inches long is brought into use. Order as No. 824.



Farm and Fireside one year and Cooking-Knife, 40 cents, by mail, post-paid Or given for sending ONE new yearly subscription, not your own nor any member of your family

The Quick "Parer and Corer"

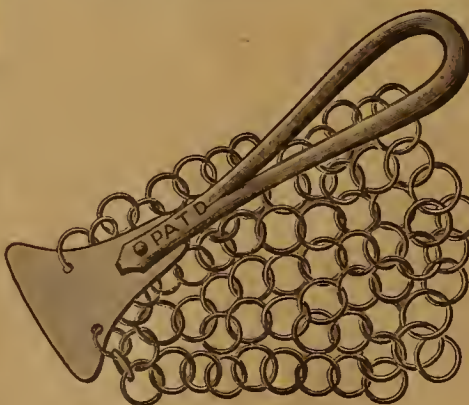


This article will be used many times a day on account of its great value in saving the vegetable, and also time. It does the work very

rapidly. Every one warranted to be fine steel, and tinned so they won't rust. Order as No. 825.

Farm and Fireside one year and Parer and Corer, 40 cents, by mail, post-paid Or given for sending ONE new yearly subscription, not your own nor any member of your family

"Sensible Cleaner" For Pots, Pans, Etc. Cleans Perfectly



Large two-ring wire cloth with iron handle and steel scraper, making it doubly effective. No family should be without one. Does its work quickly and effectively, scouring and cleaning the bottom of the pot or pan in a manner that gives delight and satisfaction, keeping the hands out of the soap and water, which chafes and ruins the skin of the hand. Saves your finger-nails, too. The most-wanted kitchen utensil manufactured. Order as No. 826.

Farm and Fireside one year and this Chain Pot-Cleaner, 40 cents, by mail, post-paid

Or given for sending ONE new yearly subscription, not your own nor any member of your family

Cleans Quickly—Saves the Hands

Address FARM AND FIRESIDE, Springfield, Ohio

WIDOW'S RIGHTS

F. D. P., Kansas, asks: "If a woman having nothing marries a man, and works and does her part, and they get a good start, and have three children, can he will everything away from wife and children?"

By the laws of Kansas, on the death of the husband one half of the estate becomes the property of the wife, and such one half cannot be taken away from her by will of the husband.

RIGHT TO WILL PROPERTY

M. A., Iowa, writes: "If a couple are married, but have no children, and the wife has property in her name, can she will it all to the husband? Can her brothers and sisters come in and take a share if the wife dies first, or can the husband hold all by the will?"

Yes, the wife can devise the property to whomsoever she may choose.

PARTNERSHIP PROPERTY

A. E. S., Pennsylvania, puts the following: "A. and B. own and occupy a house and ten acres of ground in partnership for a number of years. A. marries, and moves to another state. B. still occupies said property for over three years, refusing to pay any taxes, insurance or rent to A. Recently B. died. Can A. recover rent with interest from the estate of B., which will soon be settled up?"

Yes; the estate of B. would be liable for whatever would be right and just to A. or his one-half interest.

INHERITANCE

R. McL., Illinois, wishes to know: "What are the laws of Illinois in regard to property, when a man dies, leaving a wife, but no children? Can his parents or brothers and sisters claim any of the personal property? What share of real estate can they claim?"

When a widow or husband survives, with no child or descendants of child, one half of the real estate and all of the personal estate goes to the widow or surviving husband, and the other half of the real estate goes to the parents, brothers and sisters.

CONTRACT FOR REAL ESTATE

A subscriber gives the following: "A. bought a farm from B., and B. agrees to furnish abstract and title to be correct within thirty days. A. tells B.'s agent that if he does not get the paper ready he would have to pay taxes on the money he has, as the time for the assessor is at hand. The thirty days were up the fourteenth day of April. It was the twentieth day of May before A. could send the money, and it was taxed. At tax-paying time A. goes to B. and tells him that he ought to pay the taxes, as it was his fault that A. had to pay taxes on the money. B. says, 'No, I have nothing to do about it. If you have anything to claim, go to the agent. I have nothing to do about it.' Is B. responsible for the contract drawn up by his agent, or will A. have to go to the agent? The contract reads: 'Time is and shall be the essence of this

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

contract, and the sale and transfer of said property, according to the provisions hereof, shall be consummated within the time specified above.' The contract provides that B. should trim hedges on the farm, but hedges are not trimmed. B. wants to get out of it, as it is a large job—eight hundred rods of trimming. I hope to get an answer in the next issue."

B. would be responsible for anything his agent might have done which would be within the scope of the agent's authority, and in the case as given I should think that B. would be directly responsible, although not sure. It seems that if the delay was caused by B.'s failure to consummate the contract within the time stipulated, B. should pay whatever damages was suffered by A. If the contract stipulated that B. should trim the hedges, he must do so, for he might have accepted the benefits of his contract, and repudiated his obligations.

NOTE—The inquirer wants the answer given in the next issue. Let me again say that inquiries made are answered in the order in which they are received, and if an immediate answer is desired the inquirer should follow the course outlined at the head of this department.

DIVORCE

J. N. A., New York, asks: "Can a man get a bill of divorcement from his wife, on the grounds of desertion, in the states of Illinois and New Jersey? If so, how long must he prove desertion, and how long should he be a resident of each state?"

By the laws of Illinois, divorce may be granted for desertion after two years without reasonable cause. The applicant must have resided in the state one year before filing the bill. By the laws of New Jersey, wilful, continued, obstinate desertion for the term of two years is grounds for divorce. Parties must have resided there during two years of the time the desertion has continued.

CANCELLATION OF MORTGAGE

S. E. F., New York, inquires: "A few years ago C. bought a farm of B. Last year B. died. His widow and an ex-judge are the executors, and they also have an attorney. This spring C. wants to pay the mortgage, and would like to know if they should all sign the discharge of mortgage to make it legal, or would the attorney be enough to make it all right?"

The executors of the estate are the proper persons to release or cancel a mortgage. Where there are two executors of the estate, any one of them may do whatever acts he sees fit with reference to the estate, therefore a cancellation will be good if signed by one. A cancellation or release made by an attorney is not proper, and should never be either received or made.

DOGS AND CHICKENS

C. A. S., New York, says: "I keep fowls, and feed them scraps. My neighbor has a dog, which he allows to run at large. He pays tax for the dog, and has it registered. The dog comes to my house

and takes what I put out for my chickens. I have asked him to keep the dog home, but he does not. I have been told to shoot the dog."

At common law a dog was not considered to be property, but this has been changed in many of the states. A person killing a dog might be liable for whatever damages the owner would suffer. In instances like that suggested in the question it may be difficult to find legal remedy, and parties are sometimes justified in taking the law into their own hands. I think I should be tempted in such a case, after having notified the owner of the dog to keep him away, to follow the advice that has been given you. In many states recognizing that dogs are property, trespassing dogs are permitted to be killed without liability.

LINE FENCES

J. B. H., Indiana, says: "A. and B. each own forty acres of land adjoining, each tract forming a rectangle forty by one hundred and sixty rods. There is a line fence dividing the two tracts of one hundred and sixty rods. A. owns eighty rods of line fence all at one end, and B. owns the other eighty rods. A. sells twenty acres of his tract lying along B.'s part of line fence to C. Now, can B. take away forty rods of his fence and compel C. to make forty rods between B. and C.? If so, can C. hold A. for forty rods of line fence, A. still holding eighty rods of fence of A.'s part between A. and B.? If neither A. nor B. can remove any of this established line fence, how can this one hundred and sixty rods of fence be divided so that each A., B. and C. can receive their right portion?"

The above states a condition of facts with reference to line fences which is frequently inquired about, and is nowhere authoritatively answered so far as I know. It seems that when a man buys a farm he is bound to take notice of the condition of the fences on the land, and he is bound to know whose fence is on the line he is buying. Where it is necessary to make a new division of the fence, the parties having placed the fence there should either be paid for their share or permitted to remove it. In many states the township trustees settle the question.

RIGHT TO CLOSE ROAD

H. P. B., Pennsylvania, wants to know: "If a road or pathway has not been used for twenty-one years, and another pathway has been used steadily, would such acts be an abandonment of the road or pathway?"

The simple non-use for twenty-one years will not be an abandonment such as would vacate the road. A mere closing of the road or pathway by bars would not defeat the right of a person along the line of the pathway to use such road when he wished to reach his land.

BEWARE OF WOOD-ALCOHOL

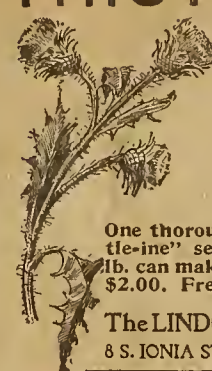
The surgeons of the New Orleans Eye, Ear, Nose and Throat Hospital have noticed the large number of blind and partially blind who have entered that institution for treatment. Upon investigation, it was discovered that an antiseptic containing a large amount of wood-alcohol had been used throughout the plantations of that state. Methyl alcohol taken internally affects the optic nerve, thus destroying vision. It is feared many will never recover complete vision.

HUSH-MONEY

"I call that hush-money," said the happy father to the chemist, as he placed twenty-five cents on the counter for a bottle of soothing-syrup.

This department has received during the past year a large number of inquiries, but being invariably of personal rather than general interest, I have not answered them in this column. It will be readily understood that I cannot use this department for making individual prescriptions or giving diagnosis of disease for individuals. I have gratuitously answered by mail many of these individual inquiries, but find that this method of answering personal inquiries is becoming too burdensome to be longer continued. I shall take pleasure in answering as best I can all questions of general interest from regular subscribers.

THISTLE-INE



Certain Death to CANADA THISTLES AND ALL OTHER NOXIOUS WEEDS.

One thorough spraying with "Thistle-ine" settles it. Guaranteed. 5 lb. can makes 5 gallons of the liquid, \$2.00. Free booklet tells all about it.

The LINDGREN CHEMICAL CO. 8 S. IONIA ST. GRAND RAPIDS, MICH.

You Can't Get a Home for Nothing

but nowhere in the country can a Good home be had to-day for so low a price as in the Northwest, along the line of the NORTHERN PACIFIC RAILWAY. Very low round-trip rates are now in effect. Write for information regarding them and the low-priced lands of North Dakota and Montana and the irrigated farms of eastern Washington.

CHAS. S. FEE, G. P. & T. A. St. Paul, Minn.

THE LUCKY "4-LEAF CLOVER"

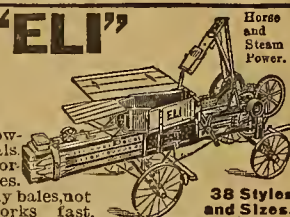


Plymouth Cream Extractor is the CREAM of them all. Inner can quickly removable; water all around and under milk; has far greater cooling surface than any other. No water required 5 months in year. Special air chamber with ventilator. New and original faucet, impossible to leak or sour. Express charges prepaid. Catalogue free.

Plymouth Cream Separator Company, Plymouth, Ohio.

THE "ELI"

King of Balers.



A train of followers, but no equals. Proves its superiority wherever it goes. Makes tight shapely bales, not loose bundles, works fast, avoids accidents and endures. Little draft, tremendous power, a machine of special features. Write for free Eli catalogue. Collins Plow Co., 1116 Hampshire St., Quincy, Ill.

CORRUGATED CREAM EXTRACTOR



Separates the cream without mixing water with milk. Operates itself—saving your time and labor. Has double the cooling surface of any other. Cream yields more and better butter, commanding extra prices. Easily cleaned. Pays for itself in a short time. FREE Catalogue. State name of grocer. ED. S. CUSHMAN, Sole Mfr. Box 111, Centerville, Iowa

THE WORLD'S PLAYGROUND

MOUNTAINS FOREST LAKES SHORE

DISPATCHED BY THE "BIG FOUR"

Warren J. Lynch, Cincinnati, Ohio

The Family Physician

By ROBERT B. HOUSE, M.D.

CEREAL FOODS

A subscriber in Ohio writes: "Will you kindly give your opinion of the use of cereals for breakfast. Is the constant use of such food beneficial or injurious? Your suggestions are very helpful, and I hope to see something on the above topic."

I infer that you ask in regard to the numerous prepared breakfast-foods that now flood the market. It is difficult to give a reliable estimate of the value of these foods without an exact knowledge of their composition and method of preparation. I believe that many of the so-called breakfast-cereals do not possess any more, if as much, nutritive value as the cereals from which they are made, and the cost to the consumer is four or five times greater. No doubt the manufacturers of these foods have placed much too high an estimate upon them in setting forth their claims to the public, in order to sell them, it being a purely commercial proposition with them. Some of these foods are partially cooked, and more or less saccharine matter added in their preparation, which increases their value in carbohydrates and fats, but not in proteids.

If carefully and scientifically made, no doubt they may be more digestible than the usual forms of cereal food, but I am not so sure about their augmented food value. Some of these foods are so hard and slowly insoluble if care is not taken in masticating them, or better, to soften

them before eating, that they will produce mechanical irritation in the stomach before digestion takes place. Toasting bread, if properly done, makes it more digestible. Often only the surface of slices of bread is toasted, and the interior left soft. Such toasting does not increase the digestibility of bread. Zwieback is well-toasted bread. The readiness with which the cereal foods are digested depends greatly upon the care with which they are disintegrated and the fineness of their division during mastication and during their stay in the stomach.

Experience has taught athletes and their trainers that a generous mixed diet is the best one for them. At the training-tables of the Yale and Harvard crews such food as the following are eaten: Breakfast-cereals, dry toast, vegetables in reasonable variety, and fruits; beef, lamb, mutton, chicken, fish, bacon and eggs. Desserts of simple puddings or ice-cream are furnished, but no highly seasoned food is ever allowed to find its way to their tables.

The subject of dietetics is intensely interesting, and one that ought to be more thoroughly understood by all classes of people, both in regard to the value of foods as nutriment for persons in health as well as for those who are ill.

HOLIDAY IN THE WOODS

BY JOSEPHINE E. TOAL

Down in the shady wood to-day
A jubilee is made.
The woodland folk are all at play,
There's music and parade.
Now, what's it all about,
Come, Brighteyes, let's find out.

This morn at rising of the sun
I heard the waterfall.
Boom! boom! it went, till really one
Would think the rocks must fall.
And all the little folk
Within the wood awoke.

A hundred flags flung gaily out—
See, in the marsh they proudly wave;
And high and low and all about,
On grassy bank, in mossy cave,
I surely see, don't you,
The old red, white and blue.

And listen now! What do we hear?
A sound quite like a drum.
Come, keep within this thicket, dear,
From here it seems to come.
Ah! look close by that tree;
It's Drummer Partridge, see!

They're wearing uniform to-day,
Look, Brighteyes, overhead;
See in the branches flashes gay
Of blue and gold and red;
And there the blackbird sings,
With straps upon his wings.

Grand fireworks they'll have to-night,
These forest folk, I know;
For in the wood, half out of sight,
Is where the rockets grow.
And, too, when it is late
They will illuminate.

A hundred tiny lamps will glow
Down here on every side,
And from the sky the moon will throw
Her search-light far and wide,
And all the stars will shine.
Indeed it will be fine.

The orchestra, of course, will play,
The frogs are very good.
Oh, you have guessed their holiday,
Sweetheart! I knew you would!
Yes, here, in fitting state,
The Fourth they celebrate.

CURIOUS DWELLINGS OF MAN

AN INVESTIGATION of the ways in which the different inhabitants of the globe build their houses is interesting. Some of these homes excite our wonder. They are, too, a gage of man's advance in civilization and prosperity.

Naturally, in his earlier days and savage state man took shelter under trees and rocks, and when possible, in caverns. Later, the boughs of trees were interwoven to form a sort of roof. Then rushes and minor vegetation were used to make the covering more compact. In this way the first dwelling was evidently constructed.

A roof of bamboo or palm-leaves, supported in front by two posts about six feet in height, and in the rear by others half as high, constitute perhaps the most simple house in the world. Under such a structure the natives of Andaman Island are contented, be the weather fair or foul. A parallel in simplicity is the abode of the pigmy Veddahs of Ceylon, though the latter sometimes pile up brush on one side to afford protection from the sun's oblique rays.

The Fuegians, even more slothful, construct with a few broken branches stuck slantwise into the ground and thatched with grass a wigwam which can hardly be called a house. The Indians of Paraguay, by thrusting the ends of two or three short poles in the earth, and throwing a cowskin over them, are amply sheltered.

The Patagonians are much better house-builders. Their huts are rectangular in shape, about the height of a man, and from ten to twelve feet square, with a gently sloping roof. A framework of posts set firmly in the ground, and having forked tops, holds the cross-poles, which in turn support the rafters covered with skins. These nomadic people take their houses with them wherever they move, on account of the scarcity of wood.

Sandwich-Islanders delight in having houses a hundred feet in length, one third that distance in width, with a height of nine or ten feet. The walls and roof are compactly built, and the earthen floor is strewn with dried grass. Their doors are low, and oblong in shape.

In contrast to these huge dwellings, the Australians build a hut of gipsy type, barely large enough in which to sit down. When sleeping they have to curl up their legs. Four persons often manage to occupy one dwelling. If they were to straighten out they would push their feet through the walls. In fact, in the warmer portions of the country an opening is left in the sides, so that the sleeper can thrust his feet outside to cool. These miniature dwellings are constructed of slender poles, having both ends stuck in the ground, and standing near together in a conical form. They are covered with bark and leaves.

The Maori builds his house about twenty feet long, and from eight to ten feet deep, with a roof sloping nearly to the ground. Its frame consists of light poles, and the roof and walls are made of dry grass and lined with bark. It is no unusual thing to see the ridge-pole ornamented with the carved likeness of the proprietor. An aperture near the low door answers for window and chimney. The roof projects so as to form a portico, where seats are placed.

The dwellings of the natives of Fiji are built of coconut and tree-fern; they are oblong in shape, and have two doorways, on opposite sides. The roof has a very sharp angle, and the rafters, of palmwood, are

Around the Fireside

thatched with sugar-cane and fern-leaves. A matting serves for the door. The building is undivided inside, and on one side is a stone fireplace.

The Nootka Indian, who delights to enter his abode through the roof, leaves the planks loose that form the covering. An escape for the smoke or an ingress for the sun is thus quickly made. Against the interior of the walls are wide benches, upon which the family sit and sleep. At each end of the house is a large tree, carved into a human likeness, the face, hands and arms drawn and painted with a curious fidelity to nature.

In Kamchatka the winter house is built exactly like a vault, oval in form, and sunk a dozen feet below the surface of the earth. The framework of this curjous abode is of wood and whalebone, and the roof of twigs and grass. The means of reaching it is a notched pole standing upright in the center. In the summer these strange people go to the other extreme, and build their huts of poles on a platform above the ground.

The Eskimo in his brief summer lives in a tent of skins supported by deers' horns lashed together and fastened down by stones. His winter dwelling as a rule he builds of ice and snow. Selecting a firm embankment of snow, he traces a circle on it the size of his proposed house. The snow within the inclosure he then cuts into slabs about two feet long and six inches thick. With these he forms the walls, which he gradually strengthens as they rise, until when they meet at the height of ten feet he has made a dome-shaped structure.

It takes two men to do the work, and when it is completed, one man is imprisoned in the snow house. He then cuts his way out, the place of exit being intended for the doorway. Another aperture is cut higher up, and an ice slab fitted in for a window. A tunnel is then made, leading in a circuitous direction from the door, to serve as a wind-break.

When the snow has been shoveled up so as to fill all the crevices, the building is completed on the outside. Within snow benches are made, and are covered with birch boughs overlaid with skins. In the spring, with his snow cottage melting away, and the cold too severe for him to abandon it for his tent, the Eskimo passes the most unpleasant season of the year.

Among the most curious dwellings are those of the people who live in regions of water. That fairly enlightened races have dwelt in such places is proved by the hamlets yet to be seen beneath the Swiss lakes, the pile huts of Scotland and the crannogs of Ireland. In India are to be seen the Sindian houses; on the southern coast of Africa, the airy shanties of the natives, and in South America, that city of water-dwellers, Little Venice. These last aquatic people are actually driven to live on the water, that they may escape the vast numbers of mosquitoes that infest the neighboring country.

The dwellings of the inhabitants of Lake Maracaibo are made by driving down posts cut from an ironwood-tree, which lasts for ages in the flood. Across these posts are laid beams and planks of a lighter wood,



HOUSE-FLY ON A PIECE OF SPONGE-CAKE
(Magnified)

with a roof and walls. There are four groups of these singular dwellings, comprising what the Spanish discoverers nicknamed Little Venice, from whence comes the name of the province of Venezuela.

The Dyaks on land or water invariably dwell in houses built on piles. So it is on the islands throughout the archipelagoes. At Banka, where an inundation of the land is frequent, the houses are moored, giving the place the name of "floating city."

In Sumatra, Java, where the people live in constant dread of earthquakes, the houses are lightly built, with large movable shutters. As soon as the first tremor of the earth is noticed, each occupant of the dwellings seizes one of the broad shutters, and holding it above his head as a shield against falling objects, rushes to an open door. Here the bamboo protector is thrown upon the ground, and the owner seats himself upon it, to await the end of the shock, and as the earth seldom opens wide enough to swallow up his capacious platform, he feels comparatively safe.

So man builds his home, and adapts himself to surrounding conditions—whatever inconveniences belong to his situation, they become a part of his existence; whatever dangers beset him are looked upon as a matter of course. The Sicilian, without a suspicion of dread, toasts his cheese in the seams of Mount Ætna; the Italian roasts his fowls in the lava streams of Mount Vesuvius; while with equal unconcern the Ic-lander boils the water for his tea in the fire flood of Mount Hecla. S.

THE HOUSE-FLY

In a paper written in 1900 by Dr. L. O. Howard, chief of the Division of Entomology at Washington, on "The Insect Fauna of Human Excrement, with Special Reference to the Spread of Typhoid Fever by Flies," it was shown that out of twenty-seven thousand and eighty-seven flies which had been caught in different parts of the country in rooms where food was exposed, as would ordinarily be the case in a kitchen or dining-room, more than ninety-eight per cent of the insects so taken were ordinary house-flies. House-flies breed to a very large extent in horse-manure, but they are very often attracted and frequently develop in human excrement. An individual fly lays on an average about one hundred and twenty eggs, which in a few hours hatch into larvæ, or "maggots," and after another transformation at the end of ten days, eventually become full-grown adult insects.

When we consider these facts, it is not to be wondered at that typhoid fever often prevails in the country, especially when we consider the unsanitary system so often in use for the disposition of human excrement. Under these conditions every opportunity is offered for the dissemination of this disease through the agency of flies, particularly the house-fly, which finds in the country stable and the outhouse conditions admirably adapted for its development.

In view of these facts, the importance of keeping flies out of the kitchen and away from all food-supplies cannot possibly be overestimated. To this end careful protection must be invoked, and every effort should be made to eliminate all places that are favorable for the propagation of flies. Manure-pits should be thoroughly screened, and where it is not practicable to adopt this measure, chloride of lime, if used in liberal quantities and well sprinkled through the manure, will prevent the development of any eggs which may be deposited in this material. The outhouse also should be thoroughly screened, or better yet, where practicable, should be done away with altogether. In no way can the wastes of the human body be more easily and safely disposed of than through the medium of water. Running water is now so generally available that there would seem to be little excuse for not utilizing it in this connection and thus doing away with the many objectionable features of the primitive system still so largely in use in the country. The water-carriage system of disposal, to be sure, raises other sanitary questions, but none that cannot be satisfactorily answered even in country places. The cesspool, once so much dreaded, has at last under proper management won for itself scientific recognition and approval, and country places in which it is not available are rare.—Extract from article by William Lyman Underwood, of Massachusetts Institute of Technology, in *Country Life in America*.

AN INFORMAL LUNCHEON

Among the most charming ways of showing attention to a friend who may be visiting you, and whom you wish to honor, may be reckoned the luncheon to which only women are invited. You have an old schoolmate staying with you, or an aunt or cousin from a distant place. Ask six or eight agreeable friends who know one another, or who are likely to have subjects in common, to meet her. They arrive at the designated hour, one or half past usually, and probably keep on their bonnets or hats and their gloves until they are seated at the table. For a first course, grape-fruit in halves, with the pulp removed from the skin, and put back, so that it may be easily eaten with a teaspoon, then three or four strawberries added, and the whole sugared, is very nice. Follow this with bouillon served in cups. Creamed or fried or broiled chicken with peas and potatoes may be the next course; or broiled lamb-chops or any dainty meat may be substituted for the chicken. Then have a salad of plain lettuce, or lettuce and tomatoes, or lettuce and chopped apples and celery. For dessert nothing is quite so popular as ice-cream and cake, but strawberries or preserves, or a delicate pudding or pie, will answer just as well. Finish the luncheon with coffee.

Conversation should be general, not confined to one or two or to neighbors at the table. If you know a funny story, tell it.

People do not linger long when the luncheon is over, it being polite to take one's leave almost immediately after this function.—*Christian Herald*.

THE LOUISIANA PURCHASE

Now that great preparations are being made at St. Louis for the celebration of the one hundredth anniversary of this great event in our nation's history, it will be of interest to our readers to have set before them in epitome what the domain then purchased now embraces.

The western boundaries of the territory included in the purchase were somewhat indefinite, but the area involved consisted of nearly one million square miles. Fourteen of our states and territories now lie wholly or in part within the limits of the purchase. This area is about seven times that of Great Britain and Ireland; it is four times the size of the German Empire, and is greater than Great Britain, Germany, France, Portugal and Italy combined.

Within the territory then purchased from France there now dwell fifteen million people. That is to say, by a curious coincidence, a century after the purchase of Louisiana took place that territory contains a human being for every dollar paid for it. In St. Louis, where the purchase is to be celebrated, the United States Government now collects each year a revenue greater than the price paid Napoleon for relinquishing his dream of colonial empire on this side of the Atlantic.

At the time when Livingston and Monroe committed their country to the transaction, the price of fifteen million dollars was considered an enormous sum. Within the territory thus purchased the value of the manufactured products alone in 1900 was \$1,492,863,129, while the value of farm products in 1899 was \$1,457,533,338. In each of these years the value of one class of product alone was one hundred times the price of the purchase.—*The Religious Telescope*.

Sunday Reading

THE CONTENTED MEADOW-MOUSE

I am a simple meadow-mouse,
And live within a burrowed house;
But I can look up through its door,
And view the sky, and sometimes more—
Now it's a linnet, now a kite,
And now a shivery star at night.
—Gouverneur Morris, in McClure's Magazine.

CHRIST DOES NOT PATCH

GOD never repairs. Christ never patches. The gospel is not here to mend people. Regeneration is not a scheme of moral thinking and ethical cobbling. What God does, he does new—new heavens, new earth, new body, new heart—"Behold, I make all things new."—C. S. Parkhurst.

WORKING ON ONE'S KNEES

A clergyman walking on the public highway observed a poor man breaking stones, and kneeling the while, so that he might be able to do it more effectually. Pausing and saluting him, he remarked, "Ah, John, I wish I could break the stony hearts of my hearers as easily as you are breaking these stones."

John's answer was a memorable homethrust. "Perhaps, master," he said, "you do not work on your knees."

Praying brings down the power that can break the flintiest heart.—Christian Commonwealth.

GEM THOUGHTS

A laugh is worth a hundred groans in any market.—Charles Lamb.

God must love homely people, he makes so many of them.—Abraham Lincoln.

Keep your face always toward the sunshine, and the shadows will fall behind you.—M. B. Whitman.

We cannot know or enjoy or love the world too much if God's will controls us. Worldliness is not love of the world, but slavishness to it.—M. D. Babcock.

The smallest things become great when God requires them of us; they are small only in themselves; they are always great when they are done for God, and when they serve to unite us with him eternally.—Fenelon.

He has His plans. What if He even holds back, all through the summer-time of life, some of His plants from flowering, that they may be more ready for some day of days? Never question the wisdom of His will.—Sarah F. Smiley.

I do not know that martyrdom will prove any harder than that discipline which renders us quick to forgive, which can look upon the success of a rival with loving pleasure, which can maintain a guileless integrity in the minute transactions of life.—George Brown.

STUB-ENDS OF THOUGHT

The empty life can never be a holy one.

How can God hear those who will not listen to him?

Be not a dreamer of dreams, but a doer of deeds.

Dark hours are necessary to make us look upward.

Man forgets his dependence upon God until dark hours come.

Brains are necessary for a man to be something and do something.

The man who talks with God is the man whose talk people listen to.

Brains are not necessary to make a man a proficient kicker. Any fool can kick. A mule is past master of the art.

The men who do the most good are not men of brain alone, nor of heart alone, but men of heart and brain combined.

Many of God's zealous workers are called fanatics. They are not fanatics, but heroes and heroines; and as such they are counted by God.—Ram's Horn.

THE TASTE-BERRY

In the wilds of Africa is found a vine on which grows a small berry about the size of a cranberry, which has the peculiar property when eaten of changing the taste, so that all sour things seem sweet. After a few hours the taste becomes natural again, but during that time all acids are sweet to the taste. Whenever they find this berry, the natives eat a few and then fill themselves with the sourest fruits they can find, getting the same enjoyment as from the sweetest and rarest and most delicious fruits. It would add much to the pleasures of life if some expedient could be found which would effect the same transformation in all the affairs of our lives, enabling us to extract happiness from the most unpleasant events and the most disappointing

features of life. May not a quiet and contented spirit in a large measure furnish such a counterpart of the African taste-berry? A disposition to make the best of everything, a happy determination to look on the bright side, a gentle resolve to ignore so far as possible the disagreeable facts of existence, or at least to look upon what better sides we may be able to find, will not indeed make everything in life appear sweet and enjoyable, but will certainly reduce the sour and unpleasant to the lowest limits. We have heard of a man who said he was devoutly thankful that God had made him blind. It may not be easy for us to understand his feeling, but it suggests that a persistent effort to find good in everything may be rewarded with a large increase of happiness.—Watchman.

A VISION OF GLORY

A young Scotch girl who was taken ill in this country, knowing that she must die, begged to be taken back to her native land. On the homeward voyage she kept repeating over and over the sentence, "Oh, for a glimpse o' the hills o' Scotland!" Before the voyage was half over it was evident to those who were caring for her that she could not live to see her native land. One evening, just at sunset, they brought her on deck. The west was all aglow with glory, and for a few minutes she seemed to enjoy the scene. Some one said to her, "Is it not beautiful?" She answered, "Yes, but I'd rather see the hills o' Scotland." For a little while she closed her eyes, and then opening them again, and with a look of unspeakable gladness on her face, she exclaimed, "I see them noo, an' aye they're bonnie." Then, with a surprised look, she added, "I never kenned befor that it was the hills o' Scotland where the prophet saw the horsemen an' the chariots, but I see them all, an' we are almost there." Then, closing her eyes, she was soon within the veil. Those beside her knew that it was not the hills of Scotland, but the hills of glory that she saw. Perhaps there are some fair hills toward which you are now looking, and for which you are longing, and you may be thinking that life will be incomplete unless you reach them. What will it matter if, while you are eagerly looking, there shall burst upon your vision the King's country, and the King himself comes forth to meet you, and take you into that life where forever you shall walk with him in white because you are worthy.—Watchman.

"PULLING DOWN"

There may be something gained in criticizing and "picking to pieces" somebody else's religion, but the gain is very small. Christian men, some of them ministers of the gospel, spend hours and hours writing articles and books setting forth the fallacies of some other so-called "religion." In the meantime they fail to call on the sick who need them. The man who is thus occupied in tearing down some one else's stronghold forgets his own portion of the Master's vineyard, and the weeds of sin flourish "like a green bay-tree."

If these pastors would go about doing good among the soul-sick and body-sick members of their flocks and of the community, the world would be a very much happier place of abode. If men and women heard sermons each Sabbath filled and overflowing with the sweet truths of the Bible, the weeks would seem all too long between the holy days. As it is, there are far too many sermons full of bitter but futile railings against some other "sect."

The writer once met a man who had become a convert to a much-railed-at religion. Upon being asked how it happened, he said, "Well, I read so many things against this religion that I thought there must be something in it, so I read the other side, and now I'm converted."

Whether or not he chose wisely is not for me to say, but this story and many others ought to teach a very wholesome lesson. You can never build up your own cause by pulling another down.

In this regard "the children of this world are wiser than the children of light." You couldn't get a successful business man to "run down" another merchant or his store. He has enough to do, he will tell you, to "talk up" his own goods. Let the other fellow take care of his own affairs. In the end this merchant's store will be the most popular place in town.

Make your own religion so meritorious and attractive that people will be drawn to it, and above all things don't be narrow and do keep sweet! L. M. K.

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GIVEN

AWAY

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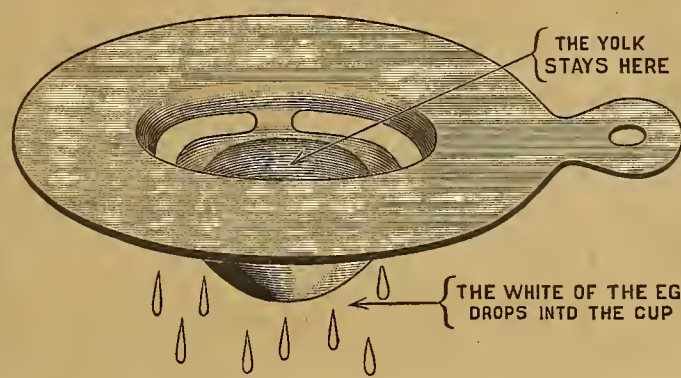
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NOVELTIES FOR PICNICS AND SOCIALS

FOR a woman half the enjoyment in attending a picnic or social lies in the fact that her basket is as well filled with goodies as any of her neighbors', and this enjoyment is enhanced at least fifty per cent if she can display some novelty to attract attention. Many women never experience this peculiar pleasure because they are afraid to undertake new dishes. They think fancy things require much time, skill and money, so their more ambitious friends carry off the honors at the country gatherings.

There are enough elaborate instructions going the rounds to confuse even cooking-school graduates, but most of those described in this article are the inventions, if we may use that word, of a busy farmer's wife who don't know a fancy pudding-mold from a milk-pan.

I well remember a cake of hers that caused all the common cakes at a Fourth-of-July picnic to blush with shame because of their plainness. It was a plain white one originally, and was longer than it was wide. After the white had become cold she had drawn on the top with a flat pine stick a perfect American flag in red and white icing. The tiny stars on the blue field (put in with a fine toothpick) were real works of art, and in listening to the many compliments her cake received the happy artist was entirely repaid for her two hours' work.

That is only one of the many original ideas that may be carried out by any one who gives the subject a little time and thought. A round cake on which was drawn a clock-face with the hands pointing to nine-thirty received much attention at a birthday party, and so did one at the same place that had a gold star on the white icing. Now, anybody can make yellow icing, and if it is impossible to draw a star with a toothpick, cut one out of paper, and mark lightly around it on the white surface, afterward covering up the line with a heavy border of gold.

Of course the cake part may be any tested recipe, but the beauty lies in the frosting. Checker-boards in any combination of colors are exceedingly easy to manage, because the square may be traced from a pattern or sketched by any one with a steady hand. A pink-and-white ground, with chocolate-creams for the checkers, make a fine combination, and the checkers need not be put on until the place where the dinner or supper is to be given is reached.

One of the prettiest features ever seen at a country-church supper was a row of cakes three or four inches square, frosted on the tops and sides, and each one lettered so that when placed in order down the middle of the table they spelled the name of the church society. It took fifteen letters to do this, and each block rested on a large green sycamore-leaf, though paraffin-paper kept it from direct contact with the green doily. The letters were put on with harmless green coloring, and attracted much attention until the close of the evening, when the cakes were sold at ten cents each.

The list is really endless, for cake lends itself to decorative art easier than any other food served at rural gatherings. After cake comes salads, which are comparatively unknown outside of the common potato and cabbage that comes under the general head of slaw. Never mind if the recipes do call for outlandish things—there are enough simple salads to be made from celery, peas, beans, asparagus and almost every vegetable that grows that will find favor with hearty appetites. Where the book calls for olive-oil use melted butter if you don't happen to have the former, and remember that plain salt and pepper still form the standard seasonings of the vast majority of Americans, even among the rich.

Bread baked in baking-powder tins, or tomato-cans from which the rims have been melted, makes dainty sandwiches, and instead of the regulation sliced ham try running it through the chopper, using the finest plate, and see if you are not pleased with the result. This has the added advantage of using up scraps of meat that are usually left at home until the next day. Run the lean boiled meat through the

chopper the day the sandwiches are to be made. Don't attempt to make them too long ahead, for the fresher they are, the better. Season to taste with prepared mustard, salt and pepper, and make it moist with a little cream if inclined to be too stiff. This may be packed in a jar, and the sandwiches made after the picnic-grounds are reached. Old chickens used in this way make delicious sandwiches, and form a welcome change from the ordinary boiled or roasted fowls. Don't allow any skin to cling to the meat, as it spoils the looks, and boil the chickens in as little water as possible.

Potted veal is much relished at picnics, and is easily prepared, as is also potted fowl. Boil the meat until tender, season highly, and pack in small crocks with vinegar to cover and a few spices to suit individual tastes. If the liquor in which the meat was boiled is added to the vinegar, and a small amount of dissolved gelatine used, the

PINCUSHION-COVER

result will be a perfect loaf the shape of the vessel that held the meat. It is very easy to place slices of beets, lemons or hard-boiled eggs, or alternate rows of each, in the bottom of a small crock, and gently pour the liquor on the pieces of meat after they have been placed in it. When this is turned out it presents a pleasing appearance, and the taste is delicious.

The Housewife

Instead of plain pickles and hard-boiled eggs, try cutting the eggs lengthwise and chopping the yolks fine, with one pickle (small) to each three yolks. Season with salt, pepper, vinegar, and add a little melted butter. Fill the cavities, and fasten together with fine toothpicks run diagonally through the whites.

I think I hear some one saying that these things don't taste a bit better than plain food, and that busy women in the country have no time to waste on them anyhow, but I flatly contradict both statements. The fancy dishes do taste better, for I've helped dispose of



—McCall's Magazine.
AMERICAN EAGLE SOFA-PILLOW
DESIGN

some of them, and many a weary woman finds pleasure and rest in the change of employment that comes when preparing for the happy country gatherings, of which there are too few. HILDA RICHMOND.

THAT GOOD COFFEE

"How do you make such delicious coffee?" If I answer this question truthfully I shall contradict some of the modern science anent coffee, but I cannot help it. I was brought up to tell the truth and shame the devil.

When I married I had great ideas about the "correct" making of coffee. I shall never forget that first marital cup, so to speak. My beloved sipped and sipped, and then began to look about in the strangest manner for something.

"What do you want?" I asked, with anxiety. "A chair," he answered. "For pity's sake! What for?"

"To set this coffee on, it is such a 'weak sister,'" My new-made happiness was too strong a thing to be greatly disturbed by this, but still I undertook to learn the lesson. The fact that every one who comes to our home, and their name is legion, says (with the exception of two dyspeptics), "What good coffee you folks have," rather consoles me for the fact that I break all the scientific rules and do as I please.

First, I buy good coffee. Twenty-five cents a pound will do fairly well, but thirty cents is better—"Mocha and Java," as they call it. Second, I have a porcelain-lined pot, which I keep scrupulously clean. Now, some good housewives do not know what this means. Please go and take a look inside your pot this minute. Is it a shade or two darker than it was when new? Is it brown inside—a color that will not come off when you wash and wipe it, but which was not there when you bought the pot? Is the inside of the spout, which is so hard to get the cloth or fingers into, very brown?



—McCall's Magazine.
LEMONADE IN THE PEEL OF A LEMON

That color is stale-coffee deposit, and will ruin the taste of fifty-cent coffee made in the most approved fashion you can follow. But how to get it off?

Buy a can of concentrated lye, fill your pot to the brim with hot water, put in a teaspoonful of lye and a few shavings of soap, and set the pot on the range where it will simmer all day, adding water as it evaporates. Then at night or after several hours carefully pour this liquid away—taking care not to spatter it on your hands or in your eyes, for the lye is very hurtful and dangerous—and scrub that pot thoroughly with hot suds and wood-ashes or whatever you scour your kitchen table with. Get a little stick, and clean in and about the spout. Now your pot is "clean." Keep it so by washing it out every day as carefully as you do your drinking-glasses, using hot suds, and removing every bit of stain. When it gets discolored again, as it may in time, give it another dose. But if you are careful it will keep clean. Give yourself from twenty minutes to half an hour for coffee-making. My tablespoon measures three by one and six eighths inches. This heaping full twice and half full the third time to a quart of water is the proportion which does not result in a "weak sister." I use egg only on state occasions. When you use egg you need a little more coffee or a little less water, as the egg seems

to have the effect of abating the strength of the coffee to a considerable extent.

My process is simply to put the dry coffee into my clean pot, and pour over it a quart—not a "heaped up" quart, but a scant quart—of madly boiling water all at once. I stir it down briskly, cover, and set it where it will come to a boil, and boil gently for ten or fifteen minutes. Before serving turn a little out, and pour it back. This clears out the spout and settles the whole.

If you use egg, use a very little. Mix with the dry coffee, add a tablespoonful of cold water, stir thoroughly, and boil a little longer than at other times.

ADA MELVILLE SHAW.

NEEDLE POINTS

In the summer wardrobe of the little girl there should be two or three simply made dresses of inexpensive lawn, gingham or any cool fabric, with low neck and short sleeves. Gather a Mother-Hubbard dress to its band or low-necked yoke, and sew in short puffed sleeves, or in their place merely a ruffle, and the pleased owner of such a comfortable frock will find a surprising number of hot days on which to wear it.

Save every bit of lace, embroidery, tucking, braid and ribbon. Though it be only a few inches in length, it may give just the finishing-touch needed to a pretty yoke, vest, shield or collar, and the habits of economy in these things which appear to be trifles may be the secret of tasteful dress. SUE H. McSPARRAN.

WELL TO KNOW

A very good substitute for cream in coffee or to serve on fresh fruits may be made as follows: Beat the whites of two eggs very stiff, add a tablespoonful of sugar and one teaspoonful of corn-starch; then gradually add a cupful of cold milk, beating steadily until all the milk is used. Beat a cupful of milk with a piece of butter the size of a hickory-nut in it. When at the boiling-point set it back on the stove, and pour in the egg-mixture. Let simmer until the milk thickens to the consistency of ordinary cream. Strain through a fine sieve, and allow to cool. J. R. MACKINTOSH.

CROCHETED DESIGN FOR BELT, COLLAR AND CUFFS

Use either coarse linen thread or silk. Make a chain of twenty stitches. Join in a ring by slip-stitch, and make fifty single crochets in this ring. Fasten with slip-stitch, and * make a chain of six stitches. Skip four single crochet stitches of ring, and join with slip-stitch in next single crochet. Repeat from * around the ring, or until there are ten loops,



CROCHETED DESIGN FOR COLLAR AND CUFFS

then make five single crochets in each loop. Tie, and break the thread.

This completes one ring. Make as many rings as needed for the desired length, joining them together by the first and sixth loops. Finish by running ribbon through the opening of the rings.—Delineator.

FRUIT-ROLLS

Stir one tablespoonful each of butter and sugar and one teaspoonful of salt into one pint of scalded milk; when lukewarm add half a cake of yeast dissolved in one fourth of a cupful of water and three cupfuls of flour, or enough to make a drop-batter. Let it rise until light, then stir in one half cupful of butter creamed with one half cupful of sugar, and add sufficient flour to make a stiff dough. Knead until smooth, and when light roll it out thin and cut into squares of about four inches. On the center of the dough lay half a canned peach, well drained, or four or five stewed prunes, or any preferred fruit which has been stewed and sweetened. Bring the corners up to the center, and press them together lightly, leaving spaces where the fruit shows. Lay them close together, and when risen again until light bake in a quick oven.—New Ideas.

BATTENBERG PINCUSHION-COVER

This dainty pincushion-cover is in the new fashionable shape, and is made of very fine wide Battenberg braid and No. 250 thread. While the stitches are quite elaborate, simple stitches can be employed in its construction. The cushion should be made the same shape and a little larger, with a full puff around the edges. MRS. H. L. MILLER.

A PRETTY HOME-MADE TRIMMING

For a simple but effective trimming which can be used on the edges of tucks of summer shirt-waists or on the edges of the ruffles of sofa-pillows, stitch two rows of machine-stitching about a quarter of an inch apart and the same distance from the edge. Then run threads of Roman floss or heavy mercerized braid of a contrasting color or the same color as the goods diagonally through every other machine-stitch, which should be long in order to permit the thread to run through easily.

An ingenious woman can make a score of variations on the basis of this design, crossing the contrasting



threads of silk, making circles between the rows of stitching, or using three or four harmonious colors together. Or the silk may be run in under every third stitch so a space will be left in the middle for French knots or little stars or crosses.—Good Housekeeping.

LADIES' OUTING COSTUME

THIS jaunty suit is made of cream-white chevrot, with bands of blue braid for trimming. This combination of blue and white is highly favored for nautical costumes, although many prefer red, black or brown with the white.

The blouse is made over a glove-fitted lining that closes in the center front. The back is plain across the shoulders, has a slight fullness at the waist, and blouses slightly all around.

The closing is made with silk cords over buttons on the edges of the fronts. The fullness at the neck is gathered, and forms a decided blouse over the belt.

A rolling collar of serge, trimmed with braid, completes the neck, and a cravat of navy-blue silk is an attractive addition.

The one-piece bishop-sleeves have a slight fullness on the shoulders, and fit the upper arm closely. They are very large at the lower edge, and adjusted on wide wristbands.

Seven gores in the skirt are fitted smoothly around the waist and hips without darts. The closing is made invisibly at the center back under two inverted plaits that are flatly pressed and present a perfectly plain appearance.

How to Dress

Dainty waists are made of dimity, lawn, organdie, silk, muslin, mull or any of the soft sheer fabrics that are designed for summer wear, and trimmed with lace, ribbon or appliqué.

LADIES' DRESSING-SACQUE WITH SAILOR COLLAR

Ecru and pink wash-silk is used for this dainty negligée, with white lace and pink baby ribbon for trimming.

The garment is simply adjusted with



LADIES' OUTING COSTUME

shoulder and under-arm seams. The back is plain across the shoulders, but quite full at the lower edge.

Gathers on the shoulders in front provide becoming fullness over the bust. The closing is made in surplice effect. The sacque may be permitted to hang loosely, like a kimono, or be drawn in close at the waist with a narrow belt that crosses in the center and has a stylish dip.

The neck is cut out a little V-shape, and completed with a broad, square sailor collar of lace. This is edged by a full ruffle trimmed with three rows of velvet ribbon. The skirt of the sacque is also finished with a ruffle.

The sleeves are shaped with inside seams, fitting the upper arm closely and flaring widely to the hem. They are trimmed with deep lace ruffles and rows of narrow ribbon.

Sacques in this style are made of dimity, swiss, lawn, percale and mercerized cotton, while the collars are of embroidery or plain white lawn.

MODEL FEEDING-BIB AND CHILD'S SUNBONNET

Both patterns are included under one number.

No. 1 is a sunbonnet made of white linen. The scalloped edges are stitched, and the back finished with a large white lawn bow.

The edge of the full crown is provided

ask, and is stitched or hemstitched on the edges. The protective bib is heavily quilted, and retain, the moisture. Fancy tapes or wash-ribbons attached to side pass around neck and fasten at the back.

INFANTS' CROCHETED SILK CAP

Into a small ring crochet twelve double stitches.

Second row—Crochet two double stitches in each of the twelve double stitches. Repeat eight rows, widening at intervals to keep the circle from cupping.

Ninth row—Double crochet, two stitches, skip one stitch.

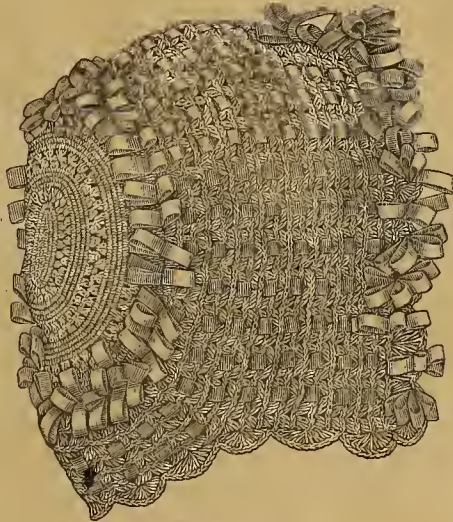
Tenth row—Plain double stitch in each stitch.

Repeat until crown measures four inches in diameter. Make thirty-two



MODEL FEEDING-BIB AND CHILD'S SUNBONNET

shells of six double stitches to shell around crown. Repeat for seven rows deep without widening. Leave five shells for the back. Then crochet back and forth for front until sixteen rows in depth. Make one extra row across top, five shells from each end. On the next row crochet all the way across the front. Border of shells, composed of twelve double stitches pulled out long, to each shell. Complete by running baby ribbon between the rows of shells from crown



INFANTS' CROCHETED CAP

to front, making three loops on each at crown, and six at front for ruche around the face with a few fuller loops on the top.

The quantity of material required for this cap is two and one half balls of crochet silk (white), eighteen yards of baby ribbon, and one yard of two-inch wash taffeta ribbon for the ties.

HEISTER ELLIOTT.

Any of these patterns will be furnished from this office for ten cents each.

LADIES' OUTING COSTUME.—The Waist Pattern, No. 9017, is cut in sizes for a 32, 34, 36, 38, 40 and 42 inch breast measure. The Skirt Pattern, No. 8460, is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.

LADIES' SHIRRED SURPLICE WAIST.—The Pattern, No. 9015, is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

LADIES' DRESSING-SACQUE WITH SAILOR COLLAR.—The Pattern, No. 9010, is cut in sizes for a 32, 34, 36, 38, 40 and 42 inch bust measure.

MODEL FEEDING-BIB AND CHILD'S SUNBONNET.—The Pattern, No. 9006, is cut in one size only.

and do not lose their shape if the edges are finished with fine washable featherbone.

No. 2 is a model feeding-bib. The long portion is made of linen dam-

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1896, 5,000	50,000	1900, 70,000	500,000
1897, 10,000	80,000	1901, 112,000	1,000,000
1898, 15,000	150,000	1902, 120,000	2,000,000

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If afflicted with weak eyes use **Thompson's Eye Water**



LADIES' DRESSING-SACQUE WITH SAILOR COLLAR

A sheath effect is maintained from belt to knee, but below that point each gore flares widely, and there is a stylish sweep at the hem that marks all walking-skirts this season. Three rows of braid are used as a foot-trimming.

Costumes in this mode are made of flannel, serge and Venetian. It is also appropriate for piqué, linen, cotton chevrot and madras, and when developed in these fabrics makes a charming suit for mountains or sea-shore.

LADIES' SHIRRED SURPLICE WAIST

Although shirt-waists and separate blouses are much worn with odd skirts, there are quite a large number of simple but dressy waists used in their stead.



A DAINY SUMMER HAT

Slightly low neck effects are worn by women who are blessed with beautiful throats, and it must be admitted that they have an airy, summery appearance that cannot be attained in a waist that has a high collar, be it ever so soft.

The illustration shows a charming model developed in ecru batiste, embroidered with pale blue figures. It is mounted on a glove-fitted lining of white lawn, which closes in the center front. The back is plain across the shoulders and drawn down close to the belt, where the slight fullness is arranged in fine plaits.

The fronts are shirred on the shoulders, and blouse well over a soft belt of pale blue ribbon. They cross at the lower edge of the V-shaped neck, and fasten in surplice effect. One-piece sleeves are shirred at the top to form a tight-fitted cap, below which they fall loosely. The fullness at the wrist is gathered and arranged on narrow embroidered bands, adjusted half way between the elbow and wrist. Sleeves in this length may be worn without gloves, although it is not considered elegant to expose a bare arm to the elbow.



LADIES' SHIRRED SURPLICE WAIST

with buttonholes, which fasten over buttons on the head portion of the scalloped brim. The crown rests softly on the brim, and almost covers the buttons. Hats in this style are particularly appropriate for piqué, linen, madras, or even lawn, as they may be laundered frequently

THE Princess de Rosemont was walking in her park, her head bent in romantic meditation, when she was startled by a voice, "Hello, sis."

She started back, and saw a young sailor standing in the dusty road. He wore the blue uniform of the navy, and bore the insignia of a petty officer on his arm. The sailor did not know that he had met a princess. He saw a slim girl of twelve years in a blue calico dress, heavy shoes and a white sun-bonnet, carrying a little tin bucket in her hand.

"I didn't mean to scare you, sis," said the sailor, smiling.

Suddenly a look of wonder and delight flashed over the girl's face. She had often dreamed that her lost brother Rudolph might come back in some such way, and this was he without a doubt.

"Oh," she exclaimed, impulsively stretching out her hand, "you're my brother! You're Rudolph!"

"Well, now," replied the sailor, in a tone of surprise, "I'd be proud to think so, but I have my doubts. Now, what's your name?"

"Amy Robertson."

"Well, there it is! My name is Jim McMahon, so you see there's a hitch somewhere. I'm awfully sorry," he added, as he saw her look of disappointment.

"Oh, I thought you might be Rudolph," said Amy, sorrowfully. "We haven't heard from him for five years."

"Never mind, sis. He'll turn up some day in whiskers, with a green parrot on his thumb, and money to burn."

"No, indeed!" cried Amy, indignantly. "Rudolph won't have whiskers."

The sailor laughed jovially. "My, these are fine woods!" he exclaimed, looking around at the magnificent redwood forest through which the gray road ran. The echoing blows of an ax or maul came from a shady gulch near by.

"That's pa, working," said Amy. "I'm taking his dinner to him."

"I'll go up with you if you don't mind," said the sailor. "We've just been paid off in San Francisco, and I came down here to try chopping wood myself for a change. I used to do it when I was a kid back in Michigan."

He followed Amy up the gulch by a narrow trail that curved around dense thickets and enormous trees. Presently they came to the place where Mr. Robertson was working. He had cut down a large fir-tree, nearly five feet in diameter at the butt, and it had fallen straight up the steep slope of the ridge. Robertson had trimmed off the limbs, and sawed the whole tree into four-foot lengths for cord-wood. Now he had just begun at the top to split out the wood.

The sailor observed all this with a glance, and then called out cheerily to Robertson, who was looking down at him silently and grimly. "How d'ye do?"

"How are you?" growled Robertson in reply.

Amy filled another can with water from a pool in the gulch, and began to climb up to her father. The sailor took the can of water from her, and followed, laying his hand once in a while on the rough gray bark of the tree.

"Thirty-nine logs," he remarked, as he reached Robertson.

"Yes," responded the woodman, soberly.

"What do you call this timber? Pine?"

"Well, they call it pine here, or Oregon pine; but it's fir, that's what it is," answered Robertson.

"Whew!" exclaimed the sailor, as he noticed the partly split log. The grain was twisting, interlocking and tough. "You've struck a hard job, uncle."

"Yes," replied Robertson, still grimly, as he sat down to his lunch, pale and tired. "This Oregon pine generally splits good, but once in a while you strike a tough tree like this. It ain't so bad as some, though," he added, more amiably. "I wouldn't mind it at all if I was well, but I got hurt last spring, and I ain't got over it yet."

"I met your girl on the road down here, and she took me for her long-lost brother," said the sailor, laughing.

"Is that so?" said Robertson, looking at him with a sudden and keen interest.

"Yes. Now, if it had been him, you could have made him get in and help you."

Robertson turned away with returning despondency. "Yes, my boy left home when he was sixteen," he said. "For a year he wrote regular, and sent us money. Then he sent word that he'd got a job with a surveying party going to Central America. Since then we ain't heard a word from him. We was living in Illinois at the time, but after a while we come to California. So I left word with the postmaster to send on any mail that come for us. But we never got nothing. A while ago I wrote to the postmaster, but there was a new man in the office, and he wrote back that there wasn't anything for us. So I don't know. I'm afraid something's happened to Rudolph. But he'll come back some day."

"Rudolph," repeated the sailor, thoughtfully, scratching the edge of his neatly cropped hair. "Rudolph—Robertson. Seems to me I've heard that name somewhere. But I hear so blessed many names. Well, perhaps it'll come to me some time."

"Pa," said Amy, timidly, "Georgie wants to know if you're going to buy him and Davy some fire-crackers. To-morrow will be the Fourth of July, you know."

"No, Amy," replied Robertson, gloomily. "There's no money for fire-crackers this year."

"Well, now, that's too bad," said the sailor. "And I haven't got a cent in my pocket, either. Not a bean! I always send a little wad to the old folks back in Michigan every pay-day, and I had a little fun with the boys after we were paid off, and then I footed it down here to chop wood for a change. But everybody on the road was glad to see me. I'm going to stay with you this afternoon, and practise on this tough tree, if you don't mind."

"Well, I haven't got any money to pay you," said Robertson, "but I can give you a good bed and a cold potato."

"That's all right, that's good enough," replied the sailor. "Now let me get a grip on that maul."

A Stranded Sailor

By CHARLES E. BRIMBLECOM

"You'd better stayed in the navy," said Robertson. "Oh, that don't cut no figure. My papers are all right, and if I reenlist in three months I don't lose anything. I was brought up on the training-ship, and they like to keep us fellows. I'll keep the 'crow' on me arm all right."

"The 'crow!'" exclaimed Amy, indignantly. "Why, it's an eagle!"

"Yes, I guess it is," replied the sailor. "But that's what the Jackies call it. It's just one of our little jokes."

"You haven't had any dinner, have you?" asked Robertson.

"Yes; I got dinner at the big sawmill back here a mile or so."

Amy now went home with the empty lunch-bucket, and Robertson and the sailor began work on the tree. The sailor soon threw off his cap and heavy blue shirt, and the streams of honest sweat rolled down his tanned cheeks. Sometimes he shook his head dubiously.

"Say," he puffed at last, as he sat down to rest and cool off, "if you only had some blasting-powder and fuse you could open these tough logs without hammering the arms off you."

"Yes, but powder and fuse cost money," replied Robertson, dejectedly.

The hot afternoon passed, and there were still thirty-three logs left when Robertson and his assistant quit work.

"Never mind, we'll do better to-morrow," said the sailor, cheerfully.

The evening passed pleasantly in Robertson's humble but neat home. Mrs. Robertson gave the young sailor a motherly welcome, and Georgie and Davy looked upon him as a hero. The "cold potato" expanded into baked beans and pork, fresh biscuits, sweet, yellow butter and abundant milk. The sailor told them of his life in the navy, and of his experience at the battle of Manila, where Dewey destroyed the Spanish fleet. Suddenly he struck his fist on his knee. "Rudolph Robertson!" he said. "That must be the name, and that's where I heard it."

"Where? At Manila?" asked Robertson, eagerly. The mother leaned forward with breathless interest, and the hand trembled that held her mending.

"Yes," replied the sailor, still in deep thought. "It was 'Rudolph,' sure. That's an uncommon name—a sort of fancy name, you might say. I'm sure of that. And the last name began with 'R.' I'm sure of that, too, and I'm pretty sure 'twas Robertson."

"Where was he? Did you see him?" asked Robertson, anxiously.

"No, I—I heard about him," answered the sailor, with a reluctant and embarrassed air. "But—I wish I hadn't spoke about it."

"Why?" inquired Robertson, with compressed lips. "Never mind," said the sailor, "we won't say no more about it."

"Tell us," spoke Robertson, sternly. "Good or bad, we want to know."

"Well, he was a soldier in one of the regiments out there, and he deserted to the enemy, and the boys caught him at the head of a squad of Filipinos."

There was a chill silence. "It wasn't my Rudolph!" exclaimed the mother, with a face of pale scorn and indignation.

"Why—of—course—it—wasn't," said the sailor, soothingly.

"No," ejaculated Robertson, sternly, drawing a deep breath. "My son died in Central America. There's hardly any doubt about it. What—what became of this—this man?"

"He died—sudden—one morning at sunrise," replied the sailor, significantly.

Mr. Robertson fell into a gloomy silence, and the mother put away her work and sadly moved about putting things in order for the night. Then she came with a candle, and showed the sailor to his neat bedroom. When he was alone he stood frowning at the candle for some minutes. Then he muttered, "It began with 'R.' 'Twas Robertson, sure."

He had been in bed not more than an hour, and the house was silent when he rose and quietly dressed himself. Softly opening the window, he could see by the bright moonlight that it was only a few feet to the ground. He leaped out lightly, and went away down the road. In less than an hour he returned, but instead of going to the house he took the trail up the gulch to the tree. He carried a small iron canister under his arm, a coil of fuse over his shoulder, and in his hand a long-shanked auger. It was long after midnight when he came back, leaped nimbly in at his window and went to bed.

In the morning he was awakened by a low tapping at his door, and saw that he had overslept. He jumped up, dressed quickly, and went out, where he found breakfast waiting. "Didn't hear the bugle," he said, "but I smelt that breakfast in me dreams, and I thought I was in the Palace Hotel. I'll just dip me head in a gallon of water, and then I'll join you."

The two little boys were complaining because they had no fire-crackers, but he said to them, as he polished his face with the towel. "Don't you say a word, me bullies. Just you wait till after breakfast, and I'll show you the biggest fire-crackers you ever saw in your lives. They're that big I'll have to fire 'em off meself, and all you'll have to do will be to keep your eyes open and see 'em go. So sit down and fill your little tummies."

But the boys were so excited by this announcement that they could hardly eat. After breakfast the whole family set out for the tree, in response to the sailor's urgent and mysterious invitation to come and see some fireworks. In honor of the day, Amy, Georgie and Davy each carried a little American flag that they had carefully treasured since the last Fourth. When they arrived, Robertson saw at once that the sailor had

bored a deep hole in the top of each log, and put in a charge of blasting-powder, tamping it with earth. A little tail of fuse stuck out of each one.

"Well, I guess you worked all night," was his brief remark.

"There's going to be a salute of thirty-three guns fired," said the sailor. "I guess you folks had better go up the

gulch a little ways, and get on the other side, 'cause there's liable to be ructions here in a minute. Say, kids, what do you think of these for fire-crackers, hey? Ever see any like 'em in the store? I guess not. But you just wait till you see 'em go off."

The spectators were soon in a safe place where they could see well. The sailor, who had prepared a little torch of dry splinters, now lit the fuse of the butt log, the one lowest down the hill. Passing on, he lit the fuse of the next log, and so, climbing rapidly up the steep slope, he lit one fuse after another. Just as he was lighting the last one at the top the butt log exploded with a loud bang. A half was thrown to each side, and tumbled down the hill. The next log slid and rolled a little, and then exploded. The third log started downward more rapidly before flying to pieces with a flash and roar. By the time five or six had burst, the whole chain of logs on the steep slope, and now unsupported from below, was sliding, rolling, tumbling and exploding in a grand and startling mix-up. Some, striking an obstacle or one another, leaped high, and burst in midair. The blasts went off like cannon, the powder-smoke whirled and rolled, and the white surfaces of the riven logs flashed through it in every direction. So the whole great tree was split from bottom to top as if by magic, hurled down the hill, and piled at the bottom in a mass of gray and white blocks, blackened here and there with the smut of powder.

"Hurrah, hurrah, hurrah!" shouted the sailor from the hill. He had drawn a little silk American flag from the breast of his shirt, and was waving it. The Robertsons, recovering from their astonishment, cheered back and waved their flags.

"I've seen blasting, but I never saw a job like that before," said Robertson, when the sailor rejoined them. "Those fuses were timed to a second. You're an expert."

"Well, you see, I've handled powder before," replied the sailor, laughing; "but this is boy's play. See here, kids, don't you say you didn't have any Fourth of July."

"Now, that powder and fuse—" began Robertson, uneasily. "It must have cost you considerable."

"No," laughed the sailor. "Didn't I tell you I haven't got a shot in the locker? I got it at the mill back here. The boys there seemed to like me uniform, and when I mentioned Manila they wanted to give me the whole mill. I'll return that auger, though, as I go along. I guess I'll foot it back to Frisco again, and see the lieutenant. Your job will be a little easier now, maybe?"

"Well, I guess it will!" responded Robertson, fervently.

"I'm sorry to leave you all," continued the sailor, "but when I want to chop wood again I'll come down."

So a grateful procession of Robertsons escorted him back to the road, where he bade them good-by and went his way toward the sawmill with the auger on his shoulder.

As they walked slowly homeward the children were eagerly talking about the sailor's wonderful fireworks, but the father and mother were silent and sad. They were both thinking of that renegade soldier who had "died—sudden—one morning at sunrise." Hearing shouting in the distance, they looked back, and saw the sailor rapidly approaching. Robertson went to meet him, wondering at his strange return.

"Say," called the sailor, breathlessly, as he came up, "it wasn't 'Robertson' at all, 'twas 'Arbuckle.' I knew it began with 'R,' and I thought it was your name; but it's 'Arbuckle.'"

Robertson burst into a loud and joyful laugh. He thought the sailor had cracked a little joke about "Arbuckle" beginning with "R," but his laughter was entirely out of proportion to such a mild joke. It was the laughter of relief from a deadly fear that his son had come to a dishonorable end.

"Oh, we'll see the boy back again some day," said Robertson, cheerfully.

"Why—of—course—you—will!" assented the sailor, emphatically. "I'll keep my eyes open for him. Good-by, uncle."

Two months later Robertson received an extravagant telegram from the sailor, but he did not begrudge the dollar he had to pay to the boy who brought it up from the nearest telegraph-office, five miles away. It read:

"Arbuckle does not begin with 'R,' after all. Just got it through my head. So I don't know what the soldier's name was. But my chum, the ship's writer, found your son. Officer on a transport. Look out for him. He is going to surprise you, and I am in the plot."

SUMMER MOODS

I love at eventide to walk alone
Down narrow glens o'erhanging with dewy thorn,
Where, from the long grass underneath, the snail,
Jet black, creeps out, and sprouts his timid horn.
I love to muse o'er meadows newly mown,
Where withering grass perfumes the sultry air;
Where bees search round, with sad and weary drone,
In vain for flowers that bloomed but newly there;
While in the juicy corn the hidden quail
Cries, "Wet my foot;" and, hid as thoughts unborn,
The fairy-like and seldom-seen land-rail
Utters "Craik, craik," like voices underground,
Right glad to meet the evening's dewy veil,
And see the light fade into gloom around.

—John Clare.

Woe to the youth whom fancy gains,
Winning from reason's hand the reins:
Pity and woe! for such a mind
Is soft, contemplative and kind.

—Sir Walter Scott.



Rows and rows of onions
Growing in my fields,
Round and yellow Danvers
Plump for heavy yields.

My! but I'll be thankful
When they're stored away
Safe and sound, all frozen,
Covered up with hay.

City chap up yonder
With his fancy hens
And his talk 'bout "hatching,"
And his chicken-pens,

Can't come up to onions,
Not by any means.
Chicks need too much coddling,
Corn, house-room and screens.

Give me fields of onions,
Thousand bushels strong
To the acre, then I'll
Sing my little song.

Lots of preparation
Must be made for these
Fat and juicy Danvers;
Sun and soil and breeze

Must be right, in doses
Not too much or less
Than the beauties call for,
Or there'll be a mess.

But when they are planted,
All one has to do
Is to trust their growing,
'Most within one's view.

Bother on your poultry,
Feathers, stomachs, eggs;
Have no use for business
Made of wings and legs.

—What to Eat.

The H. T. M.

By FRANK H. SWEET

RIDGEFORD ACADEMY was very select, and had accommodations for only a limited number of pupils; so when Charlie Stoughton found himself actually enrolled as one of its members, he naturally felt very much elated. For Charlie was a poor boy, without family influence, and with very little idea of its importance as a social factor. At home he had been one of the most popular boys in the village school, and in spite of the fact that his mother took in washing and plain sewing, had felt himself fully the equal of any of his companions. That they had to contrive and economize in every way in order to furnish his school outfit had not seemed a disgrace—far from it. He had told his companions that an aunt was to pay for his schooling, and that the proceeds of his odd jobs about the village were to go toward a new suit of clothes, and they had sympathized with him and admired his pluck.

But a few days at Ridgeford opened his eyes to many things. Among them was the fact that family had something to do with social position even among boys. Not that they were especially rude or overbearing—they were a splendid set of fellows, with one or two exceptions—but they had a way of alluding to their set and speaking of the positions they expected to occupy after their education was completed that aroused the first feelings of discontent in the mind of the country boy. Many of them had been to Europe, and they frequently compared notes or related odd adventures, and listening to their talk with the avidity of one who was fond of travel, Charlie sometimes felt his face burn as some one asked him a question, then turned it off with an "Excuse me, I forgot you had never been there."

No one asked him directly about his family, but he was always afraid that some one might. At first he would not have minded, but as the weeks went by and brought him more under the influence of his surroundings, he felt it would be awful to have them know about his sawing wood and peddling huckleberries. He fancied he could see the elevation of their eyebrows.

But the worst of it was the false impression he was creating. He knew they regarded him as of good family, but without the advantage of travel. Sometimes when he was alone he would take himself to task, and resolve to make a clean breast of it. They could no more than boycott him, and anything was better than this mean feeling of passing under false colors. And perhaps it might not be so bad as he imagined. They were a fine set of fellows, and they seemed to like him. But when he once more found himself in their midst, the evil day was put off. Could he tell his room-mate, the senator's son, or Jack Tracy, whose grandfather had discarded

a title, that their companion was the son of a washerwoman? And, after all, whose business was it but his own? It would be time enough to tell when they asked him.

His vigorous country training had made him an adept in most outdoor sports, and he soon found himself not only popular with the teachers, but with the boys also. It was "Stoughton, lend a hand here," or "Come, Stoughton, we're waiting for you." In the face of all this could he tell them that he was an impostor?

"It seems curious, old fellow," said Jack Tracy to him one day, "that a chap like you has never been anywhere—not even to Boston or New York. The pater must have kept you pretty close."

"My father has been an invalid a good many years," replied Charlie, slowly, "and—there have been reasons for my staying at home."

"I see, timid women and remote country home; afraid to have you go away. But really, old fellow, it's too bad. You don't know what you have missed."

Charlie flushed, but did not answer. Like most schools of this class, Ridgeford had its secret society. It was known as the H. T. M., and every boy who was not a member had an intense longing to be one. The rules were supposed to be very peculiar, but no one outside the society knew just what they were. Professor Taber himself had organized the H. T. M., and outsiders generally understood that eligibility depended on personal character; but there were many of the best scholars who had gone through their three years at Ridgeford without wearing the coveted badge. Every one who wished to join made application by letter, and his name was put on file. Then, when a vacancy was to be filled, these names were voted upon by the members. When Charlie entered the school there were several of these vacancies, caused by graduation of students, but for some reason no one had been voted to fill them. It was currently reported that every student who was not a member had his name on file, although most of them refused to acknowledge it.

For some months after entering the school Charlie was so absorbed in his books that he paid little attention to what was going on around him. He felt that he did not belong to their set, and kept as much as possible to himself. But gradually his proficiency as a pitcher leaked out, and he was persuaded to join the ball club. Then the boating and other amusements naturally followed, and it was not long before he found himself one of the most popular boys of the school. It was very surprising, but none the less pleasant. Then he accidentally discovered that Tracy and the senator's son had sent in their names to the H. T. M. nearly a year before, but as yet had not received the coveted badge. This

rather surprised him, and gave him his first real desire to become a member. If it could ignore such applicants, it must certainly be an honor to belong to it, and the next time he met the secretary, a bookish young man from Georgia, who was seldom seen on the playground, he bowed very deferentially. He had never spoken to the stately young Southerner, but it might be well to cultivate his acquaintance. A few days later he had the double honor of a commendation from the professor and an election to the office of captain by the ball club. Elated by this, he went early to his room, and indited a polite note of application to the H. T. M.

As the weeks went by without bringing any response, his vague expectations gradually died away. Occasionally he met the secretary, but that reserved young man either passed him with a preoccupied nod, or else failed to notice him at all. But Charlie did not feel particularly hurt at this. None of the fellows were intimate with Charlton Calhoun. He was older and more studious than most of them, and was understood to be preparing himself for the ministry. And there was something about the absent-minded, chivalrous young man that Charlie found very attractive. Ever since he had seen him walk calmly into the icy water of the mill-pond to rescue a drowning kitten he had been glad of even a passing nod.

It was a custom for the Ridgeford boys to have frequent excursions during the spring and fall months. Sometimes it was to the mountains, and hammers and collecting-bags were taken along; again it was to the sea-shore, and nothing was too small or apparently insignificant for the Professor to explain or comment upon. These excursions were not mere pleasure-trips, but were part of the school system, and a feature that made Ridgeford so popular with the boys.

Professor Taber was not given to making long announcements. When he had decided upon anything he was ready to carry it out immediately. This gave the enterprise the zest of novelty, and kept the boys in a state of subdued expectation. So one day when he announced that on the morrow the school would make a trip to Island End Beach to study the sea mosses and shells, no one felt surprised, although every face beamed with pleasure. Island End Beach was a popular summer resort some sixty miles distant and noted for its fishing and bathing. Many of the boys had been there, and they were loud in praise of its attractions to their less fortunate companions. Charlie listened to their remarks in silence, and when questioned merely said that he had been to the place. Then, as if to avoid further explanation, he walked away toward the river. But his mind was in a tumult. Island End Beach was but a few miles from his home. Could he go there and spend a day without being recognized—without having an unpleasant explanation forced upon him? If only he could avoid the excursion. If he could be sick, or have some reasonable excuse for remaining behind. But he could think of nothing that would be likely to satisfy the Professor. He must go, of course, and trust to chance to escape recognition. The worst would be when the train stopped at his own village. There was always a crowd of boys standing around the station. Suppose they should see him? Suppose one of the village newsboys who cried papers through the train should stop and call him "Chud," as they used to? The thought made him shiver. And the ugly little factory-tenement where he lived was close beside the station and in full view of the car-windows.

The dread followed him all through the afternoon and evening, and at night entered into his dreams. The next morning as the train neared the little village he took an inside seat, and carefully pulled his hat down over his eyes. He wanted to turn his coat-collar up, too, but was afraid it would attract attention. Nevertheless, as the train slowed up he counted every window in the little unpainted house opposite. The water-barrel and the broken wooden steps were just the same and—yes, there was actually little Ben swinging on the clothes-line. For a second he wanted to call to him, then he shrank back into the seat as low as possible. It was not until the train had passed through the village and left the last house behind that he breathed freely and pushed the hat back from his eyes. Then he glanced around apprehensively. What if some of his old companions had entered the car? But a quick glance reassured him.

A few seconds later Jack Tracy rushed into the car. Holding up a hat filled with choice pears, he cried, "Hi, fellows, look at these! Real Beurré Giffords, and a big basketful in the next car. Owner said she was taking them down to the Island End Hotel, but I assured her we came first and would pay her better prices. They're prime!" and he sank his white teeth into one of the juicy pears.

A wild scramble was made for the next

car, and Charlie found himself eagerly elbowing his way in the midst of it. In the excitement of the moment he forgot his former dread, and pushed on with as much ardor as the others. The sight of the pears brought up old associations. There were several trees in his own dingy back yard, and they had always yielded abundantly. It was not until he reached the forward end of the car that he saw the person who was selling the pears. Then he stopped with a low cry of dismay. Had she seen him? Could he slip back before he was recognized? But even with the thought came a flush of shame to his face. After a moment he stood up again. Yes, it was the same old shawl and faded bonnet. And there were Calhoun and Tracy and the senator's son selecting pears and dropping coins into her hand. At that moment she looked up, and he saw her face plainly. Every wrinkle and gray hair seemed familiar, and the sight of the tired face drove everything else from his mind. With a few vigorous shoves he forced his way to her side, and taking the basket of pears, said quickly, "It is too heavy for you, mother; let me sell them." Then, turning to the astonished boys, he added, quietly, but with two red spots burning in his cheeks, "Come, fellows, they're genuine Beurré Giffords, I can warrant that. You don't often find such fruit in market."

For a moment there was an awkward pause, then Calhoun stepped forward and selected some of the fruit. Others followed, and it was not long before the basket was empty. Charlie felt the boys were regarding him curiously, and thought he could detect a difference in their tones. But what did it matter? After this he was sure to be boycotted, and he might as well be getting used to it. If it were not that his aunt had paid his schooling he could leave Ridgeford; but still it was his one chance for an education, and he resolved to cling to it as long as he was allowed. Somehow he did not feel about it as he had expected to. Perhaps the caressing touch that he occasionally felt on his arm had something to do with it. He had not seen his mother for months, and it was good to be able to look into her loving eyes, and he would make it up to little Ben the next time he saw him.

Arriving at the Island End station, he helped his mother from the train, and took her into the small waiting-room.

A moment later Calhoun walked in. "Come, Stoughton," he said, "the fellows are forming into line to march down to the beach. You will have to hurry."

"I am not going," replied Charlie, quietly. "I shall take the next train back with mother, and spend the day with her. I will join you when the train comes up in the evening."

For a moment the young Southerner looked at him, then glanced at the patient face half hidden by the sunbonnet. "You are right," he said, and went out.

It was late in the evening when the last train arrived at the little village. From his place on the platform Charlie saw that most of the boys were in the forward car, so he made his way to the rear one, and slipped into an obscure seat. None of the boys were in this car, and when the train reached Ridgeford he stole out unperceived, and hurried toward the school-buildings.

He was not surprised a few moments after entering his room to have the senator's son come in and treat him with cool impertinence. They had never been on very cordial terms, and Charlie did not feel the loss of his friendship except that it indicated the line the other boys would probably take.

He did not leave his room the next morning until it was nearly time for the classes to form. Only two or three boys were met in the hall, and they nodded carelessly. He breathed more freely. Perhaps it would not be so bad as he had feared. But the real test would come when school was dismissed for the day, and the boys assembled on the playground. He looked forward to it with increasing dread, and when at last the boys filed out through the great open doors, he lingered irresolutely in the hall. While there a sealed envelope was handed him, and he opened it mechanically. Inside was a badge of the H. T. M. and instructions to be at the next meeting. At the same moment a great shout arose outside, "Stoughton! Stoughton! Hurry up, the game is waiting!"

Be careful to go strewing in and out
Thy way with good deeds, lest it come
about

That when thou shalt depart
No low, lamenting tongue be found to
say

The world is poorer since thou went
away;

But make so fair and sweet
Thy house of clay, some dusk shall
spread about

When Death unlocks the door and lets
thee out.

—Alice Cary.

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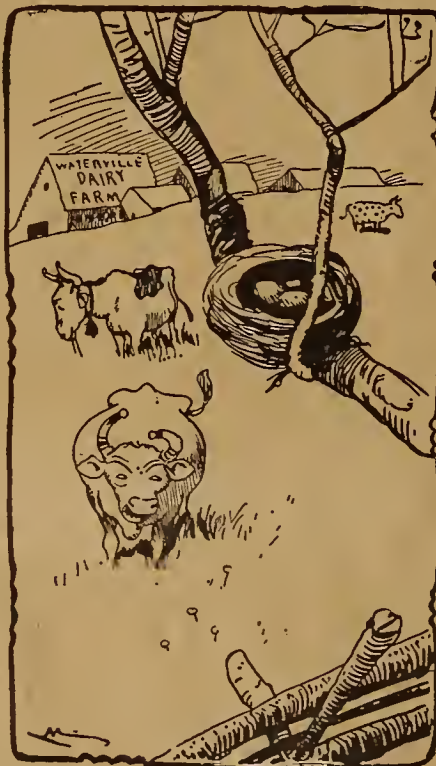
ONE



TWO



THREE



FOUR



FIVE



SIX

ANSWERS TO PUZZLES IN JUNE 1st ISSUE

The Six Animals

- 1—Antelope.
- 2—Seal.
- 3—Badger.
- 4—Deer.
- 5—Donkey.
- 6—Lynx.

The cash prizes are awarded as follows:
Woman's prize, two dollars—Miss Sophia A. Charbonneau, 363 Avery Avenue, Detroit, Michigan.
Girl's prize, two dollars—Miss Eva Carron, Pleasant Hill, Ohio.
Man's prize, two dollars—W. H. Phillips, 4046 Prairie Avenue, Chicago, Illinois.
Boy's prize, two dollars—Roy K. Hawley, 166 Washington Street, Salem, Ohio.

THE SECOND PUZZLE

The Six Names of Women

- 1—Blanche.
- 2—Grace.
- 3—Olive.
- 4—Adaline.
- 5—Anne.
- 6—Eunice.

A copy of M. de Munkacsy's painting, "Christ on Calvary," was awarded to the following per-

sons for the first correct answers to this puzzle from their respective states:
Canada—Albert M. Knight, Keswick, New Brunswick.

Georgia—Linton B. Holleman, Dunbar.
Illinois—Mrs. Alice Conley, Westfield.
Indian Territory—Aaron C. Parrott, Checotah.
Iowa—Mrs. Joe Hawke, Route 1, Stanwood.
Massachusetts—Miss Clara J. Fox, Newburyport.
Michigan—Mrs. Mary E. Wallace, Muir.
Ohio—Mrs. B. M. Allen, Greenville.
Virginia—T. B. Anthony, West Augusta.

DRAKE'S RIDDLE

When freedom from her mountain height
Unfurled her standard to the air,
She tore the azure robe of night,
And set the stars of glory there;
She mingled with its gorgeous dyes
The milky baldrick of the skies,
And striped its pure celestial white
With streakings of the morning light.
Answer—Our flag.

MISS FANSHAW'S ENIGMA

'Twas whispered in heaven, and muttered in hell,
And echo caught faintly the sound as it fell;
On the confines of earth 'twas permitted to rest,
And the depths of the ocean its presence confessed;
'Twas seen in the lightning, and heard in the thunder;
'Twill be found in the spheres when riven asunder;
'Twas given to man with his earliest breath,
Assists at his birth and attends him in death;
Presides over his happiness, honor and health,
Is the prop of his house and the end of his wealth;
It begins every hope, every wish it must bound,
And though unassuming, with monarchs is crowned;
Without it the soldier and sailor may roam,
But woe to the wretch who expels it from home.
But in the shade let it rest, like a delicate flower—
O, breathe on it softly; it dies in an hour.
Answer—The letter H.

Wit and Humor

DIDN'T KNOW

AT A social gathering, when still Bishop of London, the late Doctor Temple, Archbishop of Canterbury, was approached by a lady, who said, in great excitement, "Oh, Bishop, my aunt had a wonderful escape. She was detained yesterday, or she would have been killed in that terrible railway-accident. Was it not providential?" "Madam," replied the Bishop, "I do not know your aunt, so I cannot say."—New York Tribune.

WHY HE DID NOT TRY

When "Gabe" Bouck was Representative from the Oshkosh district of Wisconsin a pension bill came before the House, to his great vexation of spirit, for while his personal convictions were directly opposed to it, his political interests were strong enough to whip him into line. On the day the bill came up for final disposal a fellow-member met Bouck in the space behind the last row of seats, walking back and forth and gesticulating excitedly, bringing his clenched

LIMERICKS

Miss Carolyn Wells, in an amusing article on the history of that form of verse known as limericks, in "Leslie's Monthly," quotes examples of these rhymes from the early ones by Edward Lear to those in recent magazines. Among them are:

There was an old man who said, "Do Tell me how I'm to add two and two. I am not quite sure That it doesn't make four, But I fear that is almost too few."

There once was an old man of Lyme Who married three wives at a time. When asked, "Why the third?" He replied, "One's absurd, And bigamy, sir, is a crime."

There was an old fellow of Me., Who was fond of the works of Hall Ce., With a wide, vacant smile, He said, "They're good style;" Alas! the poor man was inse.

There was a young man of Ostend Who vowed he'd hold out to the end, But when half way over From Calais to Dover He done what he didn't intend.

A MERE HINT

There is a little matter to which the "Me\$\$enger" beg\$ to call the attention of some of it\$ Sub\$criber\$. We really hate to \$peak of it, but \$ome have \$eemingly allowed it to \$lip their mind\$. To u\$ thi\$ i\$ a very important i\$\$ue; in fact, it\$ nece\$\$ary in our bu\$ine\$\$\$. We won't \$peak further on the \$ubject. Perhaps you have already gue\$\$ed the drift of our remark\$.—Minneapolis Messenger.

NO DIFFERENCE

This breakfast-food and most-coffee craze has got to stop. A man out in Atchison, Kan., has a wife who is a victim of the sawdust habit, and feeds him on all sorts of queer things. He wandered home from the lodge one night, and found a box of something on the dining-table, and proceeded to eat it. It was a bit hard, but he thought it was some new breakfast-food, and finished it. The next morning he investigated the matter, as he felt a bit strange, and found he had eaten a box of bird-seed.—Springfield Republican.



A SPORT

Although considerably ahead of the game, Mr. Tenspott refused to stop.

NO WAY OUT

Assistant Secretary of the Interior Ryan, who was once a sheriff in his native state, relates how he was at one time ordered to arrest an Indian who had been selling whisky to his red friends on the reservation. After the sheriff had captured "Poor Lo" he gave him a sound lecture on the depravity of his conduct. The Indian listened stolidly to the reprimand, and finally asked, "No way Injun git outa this?" "No one can help you now but God," was the reply. Sadly the prisoner shook his head. Then he muttered, "God heap like Uncle Sam; Injun never see him!"—New York Times.

THE HUMAN BODY

"The Human Body" was the subject set for an essay at the board-school. A little girl sent in the following. It is absolutely genuine. It shows a most delightful confusion of ideas, yet withal a clearness of thought: "The human body is divided into three parts—the head, the chest and the tum-mick. "The head contains the eyes, ears, nose, mouth, and brains, if any. "The chest contains the heart, lungs and part of the liver. "The tum-mick is entirely devoted to the vowels, of which there are five—namely, a e i o u, and sometimes y and z."—London Express.

A VETERINARY SURGEON NEEDED

The amateur automobilist tries to go through a ten-mile-ordinance town at the rate of forty miles an hour. At the intersection of the main streets he whirls into a collection of cables, chains, fence-posts and other barriers. He is dug out of the wreck, and carried into the first doctor's office his rescuers see. "I can't do anything for this man," says the doctor. "I'm a veterinary surgeon." "You're the right man, doc," moans the amateur automobilist. "I was a jack-ass to think I could run that machine."—Judge.

A LARGE ORDER

The proprietor of a certain restaurant had "leased" the reverse side of his bill of fare to a carriage-manufacturer, who printed advertisements thereon. The other day a customer in a great hurry ran into the restaurant, sat at a table, and was handed a bill wrong side up by the flurried waiter. The customer put on his pince-nez, curled his mustache with his left hand, and shouted in a voice of thunder, "Bring me a fly, a landau, two victorias and a dog-cart! Got any wheelbarrows?" The waiter fled.—London Answers.

fst down into the hollow of his left hand to the accompaniment of expletives which would hardly look well in print. "What's the trouble, Gabe?" inquired his friend. "Why all this excitement?" "Trouble?" snorted the irate lawmaker. "Trouble enough! That pension bill is up, and all the cowardly nincompoops in the House are going to vote for it! It's sure to pass—sure to pass!" "But why don't you get the floor and speak against it—try to stop it?" suggested the other. "Try to stop it?" echoed Bouck. "Try to stop it? Why, I'm one of the cowardly nincompoops myself!"—F. E. Leupp, in the Century.



THE SIGN OF CAUTION

Weary Walker—"I don't know wedder dat sign means 'shot-gun' or 'health-food,' but I don't take no chances!"

HOW SHE MANAGED

The pouter—"So that silly old Miss Hen is to be married. I wonder how she managed to elicit a proposal." The duck—"The rooster asked her if she was fond of rice, and she blushed and said, 'This is so sudden!'"—Judge.

"FLY-PAPER"

"What's the trouble, Willie?" said Mrs. Brown to her small son, who was crying. "My kite won't fly," sobbed Willie, "and I made it out of fly-paper, too."—Little Chronicle.

ESKIMO PHILOSOPHY

You cannot eat your candle and burn it, too. A whale in the pantry is worth two in the sea. Many an honest heart beats beneath a sealskin jacket. It is a long polar expedition that has no turning. It takes a good man to stand in a slipper-never. Never look a gift walrus in the teeth. Where there is so much grease there must be some blubber.—Chicago Tribune.

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Editor THE AMERICAN HOME, New York City. GENTLEMEN:—I cannot tell you how well pleased I am with The American Home. It is the finest story paper I know of. I would send you a five year's subscription if I knew you received them. I am on the road as salesman, but your paper is laid aside for me. I will do you all the good I can and enclose money-order for twenty cents for which send The American Home to my address for two years. If you do not do this, keep the balance as it is worth it anyway. Wishing you the success you deserve, I am, sincerely, C. W. BENNETT.

A Few Newspaper Comments Relating to Our Prize Stories

Mrs. Edna Thatcher Russ has won another contest. She has just received a hundred dollars from The American Home of New York City for the best story, and is to be congratulated that she won with so many able and experienced authors in the contest. Among her competitors were authors of standing in the country from Maine to California; and some of them held such important positions as staff writers on some of the best magazines of the land. Mrs. Russ' story is entitled "Tenny" and is a tale of a section of Arkansas remote from railroads, and the story is a true portrayal of backwoods life in Arkansas. Tenny, the heroine, is a product of that country where the beauties of nature compensate to some degree for lack of cultivation and progress. Throughout, the story is full of pleasing situations, original descriptions and character portrayals, and can easily be classed as one of the best things of the season. It is well worth reading.—McPherson, Kan., Daily Republican, Mar. 24, 1903.

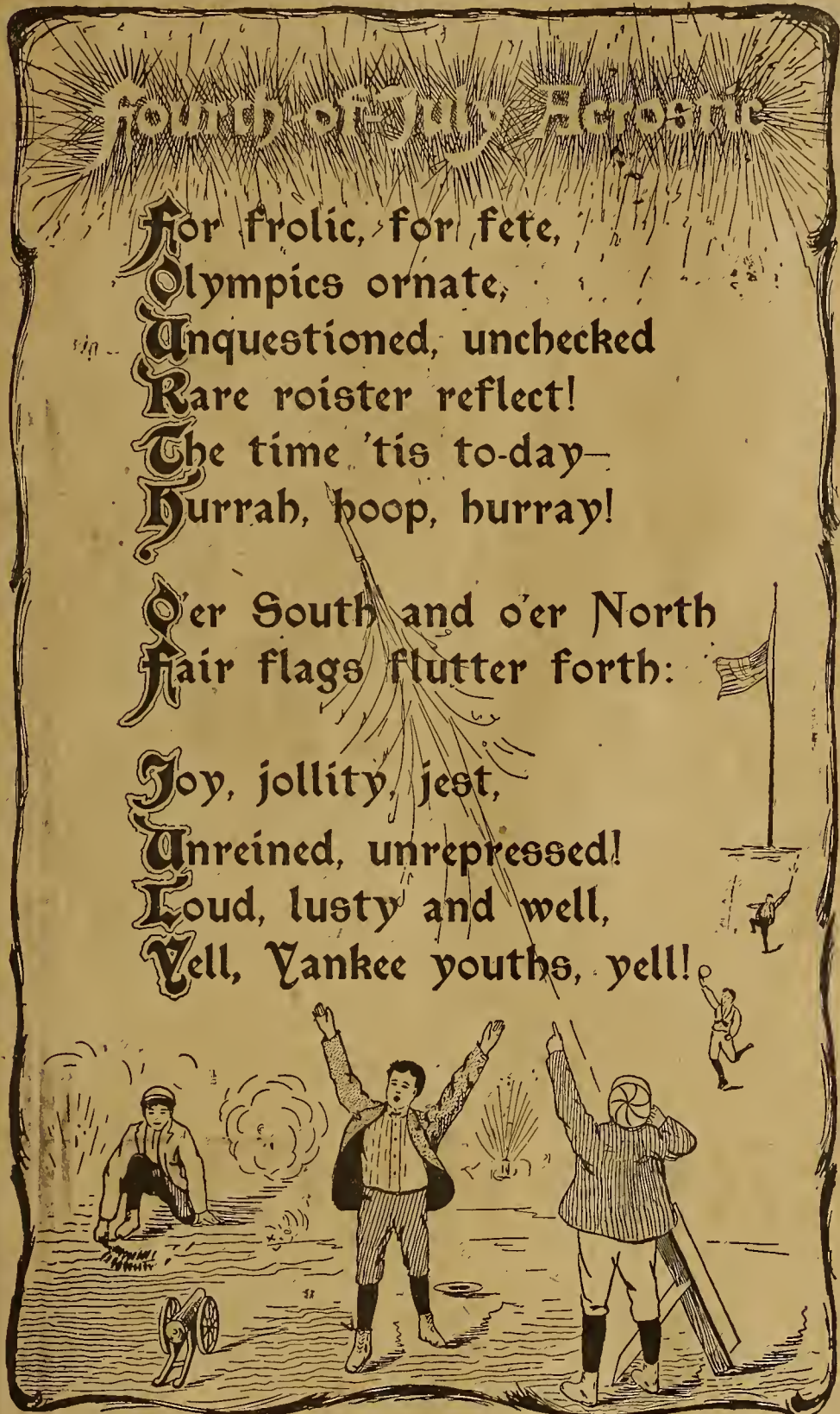
Mrs. E. A. Russ, of this city, has received the check for the money she won for her story published in the February number of the American Home Magazine. She captured first prize in the contest. Hers was a story of Arkansas. It was typical of the life of the real backwoods of the state. She has been placed on the regular staff of the magazine. The February number, which has just been issued, contains the first and second prize stories. The story is a very interesting one of some six thousand words and being a character sketch of one class of American people is very interesting.—Wichita, Kan., Eagle, Mar. 1, 1903.

Mrs. Ittie Kinney Reno has been successful in winning the second prize offered by the editor of the American Home Magazine, published in New York, in a story contest, in which magazine and newspaper writers in all parts of the country were competing. The cash prize was \$50 and Mrs. Reno has received from the editor the further compliment of being placed on the regular staff of contributors to the magazine. Her story is called "Rattlesnake Jim" and its scene is laid at Beersheba, a fact that will render it especially attractive to Nashville readers. It is a story full of stirring action and rich with all the local color of Beersheba. Its culmination is laid at "Stone Door," one of the picturesque scenic places of the mountain.—Nashville "American," Jan. 25, 1903.



The American Home, 525 Temple Court Bldg., New York

The Young People



THEIR FOURTHLY FROLIC

BY MAY MYRTLE FRENCH

"Not going to celebrate!" echoed fourteen voices of various degrees of youthfulness. For the voice of the fifteenth member of Green Corners school had just proclaimed that there wasn't to be a single town celebration in the whole county.

This suited all the older folks very well, but the younger generation was in revolt. These fifteen determined to get up a celebration on their own account. There were all the ages usual in a country school, from the two or three big boys and the same number of large girls to tiny A B C scholars.

The exercises were to be held out of doors, and board seats in a large semicircle inclosed a temporary platform, which an obliging uncle, who "belonged" to some of the children, and who was a lumberman, had put up for the occasion. This was decorated with all the flags in the neighborhood, and they were enough to make a very pretty display, together with the flowers. Only red, white and blue flowers were used. Peonies, roses and hollyhocks supplied plenty of red, the same flowers with lilacs and snowballs, of which a belated few were found, gave plenty of white; but the blue was harder to find, and in despair of natural flowers the girls had purchased quantities of blue tissue, and made all sorts of impossible posies, which, however, looked very pretty at a little distance. The platform was built around a slender tree, the trunk of which was wound with bunting, and high above the top floated the school-house flag.

The program was short—a flag-drill on the plan of a May-pole frolic was given very prettily by six small girls in costumes of red, white and blue; some one read the Declaration, of course; several bright recitations appropriate to the day were given, and a young man who had

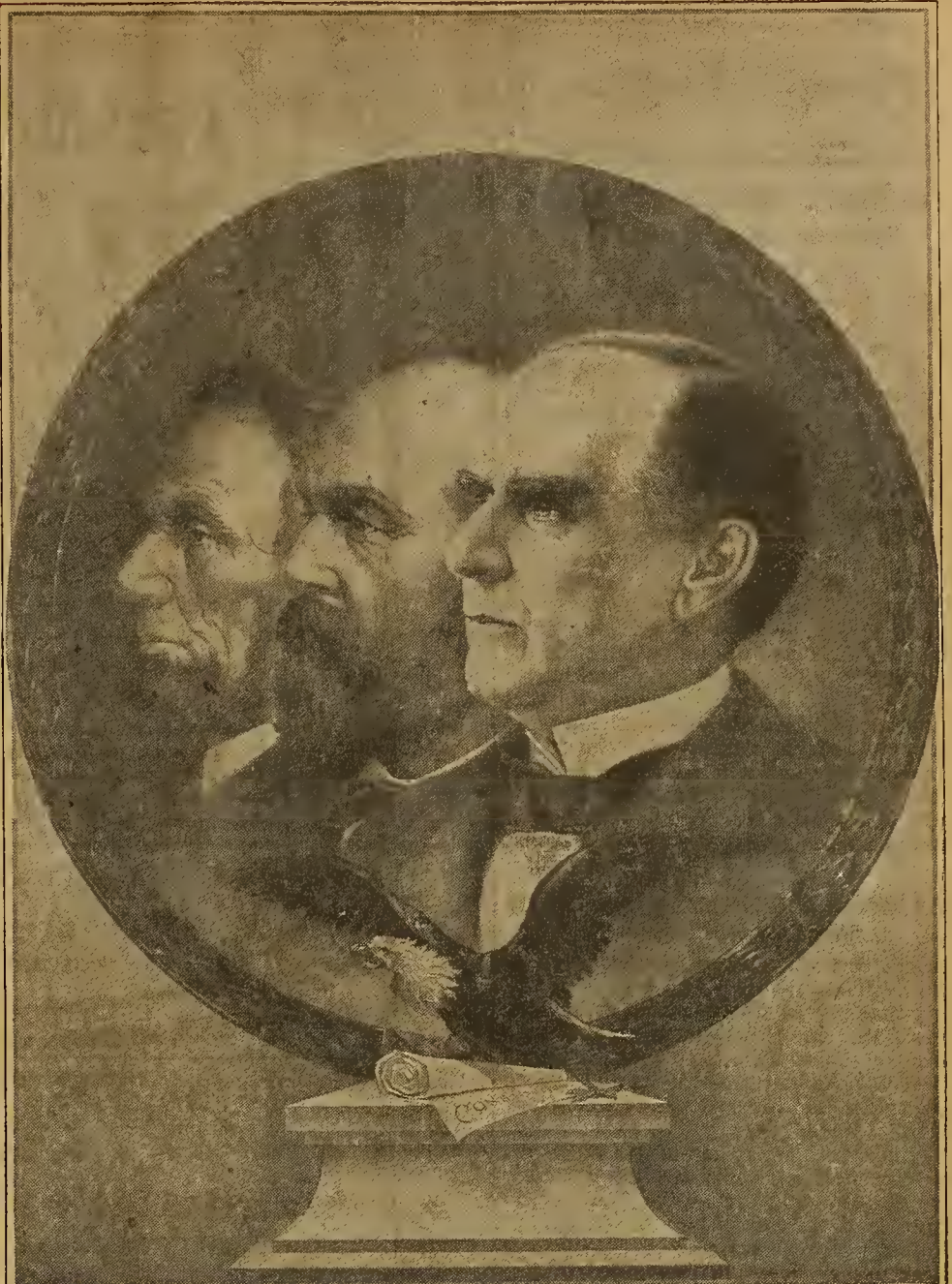
been a soldier in the Spanish-American War gave a description of the way he spent the Fourth of July in the Philippines. Fire-crackers were plenty, and much happiness and a few burns resulted from their explosions.

Dinner was served at precisely noon. The big girls had planned, and all the mothers had helped provide, this bounteous feast. A large table was built of rough boards, and draped to the ground with bunting. White muslin was used for a table-cloth, and flowers and tiny flags made it charming. They had tried to carry out the scheme of coloring so far as was possible even in the eatables. All the dishes used were white or blue and white. Great heaps of blood-red beet-pickles, rosy radishes, and salads in "blue" cabbage-leaves, helped out the idea. The cakes were all decorated with sugar and candies in these three colors. There was room for everybody, and after all had been eaten that could be, some one proposed speeches. Everybody had to say something, and great fun resulted.

After a rest and the clearing up of the table, young and old joined in games. Old favorites were chosen, with variations. "Drop the handkerchief" was played on the smooth, hard playground, only instead of using a handkerchief you exploded a big torpedo behind the person you "had the drop on." In the same fashion with other games, "clothes-pin" was played with fire-crackers; "London bridge" players passed under two flags; "hide the thimble" was done with a small flag, etc.

At about four o'clock a surprise in the shape of enough ice-cream to go around, "and then some," suddenly appeared, and by the time it was eaten and all the rest of the fire-crackers fired off, the babies at least were ready to go home.

Before they went the young teacher gathered her scholars all together, and they saluted the dear old flag in the school-children's oath of allegiance.



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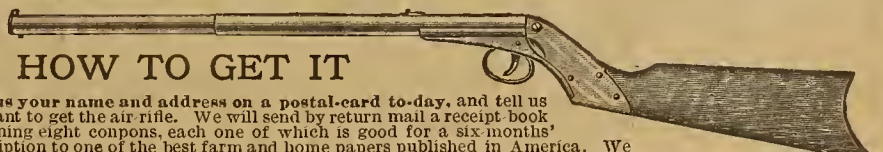
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Farm Selections

CRIMSON CLOVER AND COW-PEAS

[CONTINUED FROM PAGE 1]

manure crop. Sown any time in June at the rate of one bushel of good seed to the acre, they require only from sixty-five to one hundred days (depending on variety) to produce mature crops as valuable, acre for acre, as the very best crops of clover, and such a thing as failure of cow-peas is unknown. Sow the seed, and you will get a crop. If plowed down for manure, a good crop of cow-peas exceeds in value a heavy dressing of stable manure, and may be grown at a cost of less than seven dollars an acre all told, including labor, seed and fertilizer. There are many good varieties of cow-peas, but the New Era seems to lead in popularity here, being very early to mature, yet making a heavy, upright bush with dense foliage, which holds its leaves well until the pods ripen, so that a picking may be made for seed and the vines cut for hay afterward. Cow-peas are more difficult to cure for hay than clover, but when cured there is no better hay for any live stock.

E. G. PACKARD.

THE GERMAN AND AMERICAN SYSTEMS OF FARMING COMPARED

Erich von Fluegge, of Speck, Pomerania, Germany, who is the leader of the party that is now investigating American agriculture, in speaking of Germany's agricultural condition and of the advantage which American students have taken of the scientific investigations along agricultural lines, says:

"You have already made use of all we have learned in centuries of practice. Now our land is poor, and we are a poor people, and we are driven to 'intensive' farming. Fertilizers and a carefulness not necessary here are demanded of any German who would find profit in his land."

"In our country farming has nearly become a chemistry. The farm is simply a limited space covered with worn earth—the owner or tenant uses it as a receptacle for fertilizers, in which he plants and grows. In America you concentrate production on two or three staple crops, and so keep down the cost of machinery, buildings and labor. Potatoes are Germany's great staple crop. With nearly sixty million people we must find a cheap food, and here the potato serves well. During the past ten years agricultural methods have changed for the better in many particulars. We are growing new crops, are uniting in buying and selling, and are using improved machinery, as well as improving our stock. If Germany had only one state like Illinois or Missouri to develop, it would be another Germany."

CATALOGUES RECEIVED

Miss Chressie Neff, Saluda, N. C. Catalogue of caviars.

Ed. G. Sheldon & Co., Kansas City, Mo. Sheldon's Bulletin for home-seekers. Also "Tallmadge on Oklahoma."

Whitman Agricultural Company, St. Louis, Mo. Descriptive circulars of Whitman's "World's Standard" baling-presses.

Alabama Land & Development Co., Mobile, Ala. Descriptive circular of fruit and farming lands in Alabama and Mississippi.

Plano Division International Harvester Company of America, Chicago, Ill. Illustrated catalogue of the Plano corn binder and husker and shredder.

NEWS-NOTES

Road-building in Pennsylvania is to be conducted in a reasonable and just way. The plan contemplates the dividing the cost of durable, well-constructed roads between the state, county and township. The state is to bear half the expense, and the county and township each one fourth. They will be constructed by competent road-builders, and kept in good repair.

If any one proposes settling in the South in order to prolong his days, it will be well to ascertain where rural free delivery has been introduced. An inquiry of this kind will develop the fact that the roads are kept in a passable condition, and that the community is a progressive one. Wherever a rural-free-delivery route has been established is a good place to invest in farm-lands.

A fine reproduction of the latest and best photograph of Mrs. Theodore Roosevelt will be given to every one who sends correct answers to the Character-Trait Puzzle on page 16. The size of our picture is eleven by sixteen inches.

President Roosevelt's Newsboy



THIS IS WILLIAM SMITH, the boy who sells THE SATURDAY EVENING POST to President Roosevelt every Thursday. Last fall William started to sell THE POST in Washington. He already sold newspapers. One day, after he had received his supply of the out-of-town newspapers, he passed the White House and noticed that some papers which he had had for almost two hours were just being delivered. Next day was THE SATURDAY EVENING POST day. As soon as he had gotten his package he started for the White House on his bicycle at top speed, and sold as many copies as possible among the attaches. A few days later the President noticed a newspaper which he knew was to contain something in which he was interested. He called for his copy, but was told that it had not yet arrived. Inquiry was made as to where the copy which he had seen came from. He was told that "it was delivered by William Smith, THE SATURDAY EVENING POST boy," it being related how he had been supplying the White House staff ahead of the regular carrier. The President left instructions with Secretary Cortelyou that William be brought to him. He shook hands with him and said that thereafter he wanted him to deliver his copies of the daily papers and THE SATURDAY EVENING POST. The story of "The President's Newsboy" traveled, and now, in addition to his newspapers, William sells from 400 to 500 copies of THE POST each week, principally to members of Congress, the President's household, and department clerks.

There are 6000 boys like William Smith selling THE SATURDAY EVENING POST all over the country. They do it Friday afternoons after school hours and on Saturdays. Some are making \$15.00 a week. We want more boys. It costs nothing to start; we send the first week's supply of 10 copies free. If you write to-day, YOU CAN START NEXT WEEK.

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This book tells the complete story of how thousands of people afflicted with diseased eyes and blindness have cured their eyes and been restored to perfect sight by Dr. Coffee's mild home remedies.

Write to Dr. Coffee today and you will receive this book and his professional opinion of your case free of charge.

Over one thousand blind people have been restored to perfect sight by using \$5.00 worth of Dr. Coffee's absorption home remedies. Read what some of them say:

- Henry G. Laub, of Denison, Iowa, was blind with cataract in right eye thirty years. Was cured with one month's treatment of Dr. Coffee's remedies.
- Mrs. Annie E. Moore, of Stem, N. C., 88 years old, was cured of paresis of the optic nerve by one month's treatment.
- Mr. Henry D. Voigt, of Hamburg, Wis., son was blind with cataracts on his eyes and was restored to sight with one month's treatment.
- Henry Braun, of Hecker, Ill., says: "Your medicine worked like magic. My eyes are perfectly well. One month's treatment cured them."
- E. D. Jones, of Moline, Kas., was blind from cataracts from injury and was restored to perfect sight. Used one month's treatment.
- H. W. Wynne, Crockett, Tex., says: "You cured my little girl of scum and inflammation of the eyes, and blindness. One month's treatment cured her."
- James Troutman, of Raymondville, Mo., says: "My six year old child had scum on the eyes, wild hairs and inflammation and was nearly blind. One month's treatment cured her."
- Miss Mary Etta Field, of Phillips, Ala., says: "My eyes were weak. Had constant headache and pains in them. One month's treatment cured them."

Dr. Coffee's Mild Medicines cure at Your Home

Cataracts, Scums and Inflammation, Glaucoma, Granulated Lids and Wild Hairs, all Ulcers and Inflammation, Paresis of the Optic Nerve, Weak and Congested Eyes. Dr. Coffee's Book gives instructions on how to diet, how to take physical exercise, how to bathe properly, how to breathe properly and how to keep in perfect health. It tells all about Dr. Coffee's Mild Absorption Remedies and how 90,000 people have been restored to sight by using them.

- O. G. Ranck, of Turney, Tenn., says: "My sight has not been so good in 25 years. Your medicine is the greatest discovery of the age." He is restored to perfect sight.
- Mrs. Nancy J. Bogle, Rabke, Tex., says: "I thank God and Dr. Coffee. I was blind with cataracts and paralysis of the optic nerve. Doctors said I would never see again. \$5.00 worth of your home remedies restored my sight perfectly."
- Mrs. H. R. Shuter, Bracondale, Ont., says: "My eyes are perfect. I can see better without my glasses than with them since using one month's treatment of your remedies which cost \$5.00."
- Edwin Skillman, Centralia, Ill., says: "One month's treatment cured my eyes perfectly of granulated lids, tumors of the lids and inflammation. Accept my thanks."
- James D. McIntosh, of Tallahassee, Fla., had cataracts and paresis of the optic nerve, says: "I can see better than I have for 25 years, since using your Absorption Remedies."
- Harry Burwell, of Barin, Wyo., says: "I can see as perfectly as I ever did in my life since using your Absorption Treatment one month."
- J. M. Brewer, Dresden, Tenn., was blind from paralysis of the optic nerve. Doctors said he would have to stay blind rest of his life. Was restored to perfect sight by Dr. Coffee's Absorption Home Remedies.



Dr. Coffee, Des Moines, Iowa, Originator of the Absorption Treatment.

Dr. Coffee's remedies cure all kinds of eye diseases and blindness. They can be used at home by anyone who can read instructions, and they restore sight perfectly without visiting a doctor. Write to Dr. Coffee and tell him the condition of your eyes and he will send you his book and professional opinion absolutely free of charge and tell you how to cure yourself at home if you can be cured. If you cannot be, Dr. Coffee will tell you so frankly.

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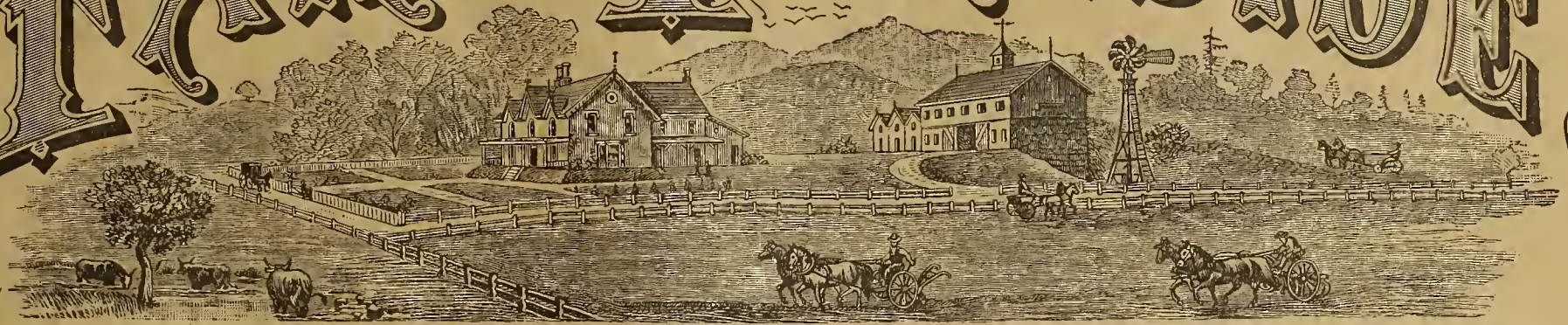
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FARMERS' RESIDENCE



Vol. XXVI. No. 20

EASTERN EDITION

JULY 15, 1903

TERMS { 50 CENTS A YEAR
24 NUMBERS

Agricultural Progression—By Walter E. Andrews

IN A certain big state in the heart of the Middle West there lives a sunburned farmer who typifies (so far as one human life may) the most marvelous agricultural progression the world has ever seen—a rural progression which in rapidity, perfection of detail and insistent, virile resourcefulness has not been equaled since the creation of the Universe.

As farmers' names have not as yet kept pace with their environment, the man to whom I refer is known as plain "Hank Peters." Some day, perhaps, his admirers will speak of him as "Mr. Henry Peters," but at present I fear his sturdy democracy would scorn the more dignified title. Although excessively particular about the pedigree and name of his live stock, he is more or less indifferent about his own name.

Some thirty years ago Hank Peters "located" a quarter-section of land that was just "five miles from nowhere." The roads were Indian trails; the land was covered with trees; in places stagnant water stood, breeding huge doses of "fever an' ague" and vast swarms of hungry mosquitoes. Three years passed. The trees had disappeared, and in their place arose a cheerless aggregation of stumps and a more or less cheerless cabin of logs. The mosquitoes were still on hand, and "fever an' ague" was a daily guest. Several settlers (attracted by the cheerful heroism of a bad example) had drifted into the neighborhood. They, too, raised a crop of stumps and endured chills and bites.

In the course of a few more years the Peters' log cabin was replaced by a remarkable structure called a "board house." The neighbors, looking at that shanty, spoke of it in tones of admiration. They referred to Hank Peters as a "risin' citizen."

Inside the house were a bare floor, a big fireplace, a few rude, home-made articles of furniture, enough to eat, and an extra chair for a possible guest. There was not much else except hope. During cold weather the family rode to town in a rough, home-made bob-sleigh that drew tears of envy from less favored neighbors; at other times of the year a squeaking, springless farm-wagon was the only vehicle in use. A ten-mile ride in it to town and back was a soul-stirring, nerve-racking experience peculiarly piquant. The Indian trails were now called "roads"—an impossible slander on the name during half the year, and an impassable slander the rest of the year.

The Peters had no sewing-machine, no organ or piano, no stoves, no curtains, no conveniences or lux-

To-day, should you chance to visit Hank Peters' farm, you would rub your eyes and look again. Where are the stumps, the swampy fields, the swarms of mosquitoes, the rude shed-barn and the more rude board house, the lonely life, the monotonous grind?

Gone, all gone.

Tile-drains have destroyed swamps, malaria and mosquitoes at one masterful swoop. Time, muscle and fire have eradicated the stumps. Genius and science have destroyed isolation and monotony. Hank Peters, despite boots and overalls, is now to be envied.

His fields are models of sleekness. So are his Jersey cows, his high-bred pigs, his driving and work



horses, his pure-blooded hens. He still works hard at times, but not so hard as he once did. Horse-power, electricity, steam and air power have taken many burdens and irksome jobs from his hands. He does more with his head and less with his hands and feet. He has more leisure, more comfort, more luxury.

The Peters' present farm-house, enlarged and improved, is a marvel of homelike comfort. In it are to be had almost every comfort and convenience that are found in a rich man's residence—pretty rugs, pictures, curtains, furniture, dainty china and linen, comfortable chairs and couches, new books and periodicals, hot and cold water up-stairs and down, modern plumbing, a porcelain bath-tub and a kitchen range. In the library (which room is also the owner's office) there hangs a telephone; in the cellar is a gas-machine and a hot-water furnace; in the attic is a billiard-room for the boys. The girls have a piano—and know how to play on it. The wife and mother has a sewing-machine and a rubber-tired carriage.

The boys and girls of the household play tennis, ride bicycles and take dancing-lessons. One boy is in college. The others could go if they chose, but instead they have preferred to take a short course at an agricultural school. They want to be twentieth-century farmers, like their father; they have no desire to "leave the farm," for what other business could be more independent or desirable?

Hank Peters—such the same old Hank of log-cabin days—is in the prime of life. His face is lined with the furrows of past hardships, but there is now a certain calmness and serenity shining in his gray eyes that was not there thirty years ago. Sundays and evenings he wears good clothes, a collar and a patient smile; at other times he revels in overalls, jumpers and solid comfort.

The new barn is a constant source of delight to the owner. "Twas my pet dream," he remarks, reminiscently, "to own a barn big enough to turn 'round in. An' I've got it!" He has, and more, too. On top of the barn is a power windmill that does more work in an hour than Hank used to do unaided in a day. It shells or grinds corn, saws wood, cuts fodder and does many other useful things.

The name of the farm is on the steel mail-box by the roadside, and when the rural-mail carrier comes on his regular rounds he sometimes deposits in that box (along with the daily papers and the other mail) a gone-astray letter which has been returned according to the printed instructions on the envelope, to "H.

Peters, Lake View Farm." Hank has become a convert to printers' ink. He prides himself on his neatly printed stationery, and often puts an advertisement in the local papers. "That's business!" says Hank.

If he wishes to go to town, he can either take the trolley-car which passes by the farm, or "hook up" the trotting-mare to the rubber-tired road-cart. The roads at last are worthy of the name. If he wants a sack of sugar or a piece of fresh beef, he has only to step to the telephone and order what he wants from the town merchant. The trolley-car brings the goods to his farm; it takes the younger children to an excellent town school; it makes visiting and church-going easy; it brings the farm into close touch with the town.

Modern machinery has brought a great change into Hank Peters' farm-methods. The ground is now plowed with a gang-plow, whereon the driver comfortably sits while four horses do the work. This plow turns two furrows at one operation, doing double the work of the old-style "walking-plow" at one half the expenditure of human effort. A "riding-harrow" follows the plow. Machine corn-planters do away with miles of weary walking and days of hand-work.

In fact, almost all the operations of the farm are now accomplished while the operator is comfortably seated under a sunshade. There are horse-power machines for planting and digging potatoes, for sowing grain and distributing fertilizers, for spreading manure, and for mowing, raking and pitching hay. Machines cut the corn, harvest the grain and spray the potato-vines. Centrifugal separators whirl the cream from the fresh milk, and save the housewife the labor of "setting," skimming, and washing a wearisome number of milk-pans; wind-power turns the churn, and electricity carries the butter to market—the housewife no longer need be a family drudge. She sets a better table. She has time to read and visit.

When the corn is ready to husk, a traveling "husker and shredder" comes to the farm. This wonderful machine, operated by steam-power derived from a traction-engine, husks the corn, dumps the ears into the crib, shreds the fodder—stalks, leaves and all—into a fine, soft, palatable mass, and then blows it through a huge pipe up into the barn mow. The machine keeps several teams busy hauling the shocked corn, and in a few days the once tedious job is finished.

Grain is threshed, beans are harvested and cleaned,



uries. Their clothes were home-made. Their pleasures were home-made. Their troubles were not made at all; it was not necessary—life was "chuck-full o' troubles."

When Hank Peters planted corn he dropped the seed by hand and covered it with a hoe. He cut grass with a scythe, raked and pitched it with the sweat of his brow, dodged stumps and chills, and then went home to a dinner of corn-bread and fried pork. A rough shed was the only shelter for the live-stock; God's sky the only shelter for the hay and fodder.

Cultivated fruits were as scarce as lightning-rods; daily papers or mails were unknown; the joys of living were condensed into sticks of "honey an' terbacker."



apples and potatoes are graded, and butter is worked—all by machinery. Machinery runs the farm, and Hank merely bosses the job. He has learned that bossing is easier than back-breaking—and more profitable. He has learned, too, that there is as great an art in selling a crop as there is in growing it. Once he "took what he could get" for his produce; now, thanks to systematic methods, he gets what he will take.

Hank Peters is but one instance of the possibilities of farm life to-day. What he has done, other men can do, will do, are doing. The twentieth-century farmer has become a mighty factor in the upward and onward evolution of the world.

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Mr. Greiner Says:

BUILDING AND LOAN ASSOCIATIONS.—A lady reader in Saratoga Springs, N. Y., asks what has become of a building and loan association formerly doing business in Syracuse, that state. They or their agents promised great things. For over three hundred dollars paid to them she has received fifteen dollars. The rest, with her interest for a series of years, had to be charged to the loss account. I have made mention of the mutual building and loan associations in a general way once before in these columns, saying that they are right and useful in principle, and frequently very wrong in practice. Since that time a large number of them have gone to the wall, among them two that I know of in Syracuse, N. Y. I had withdrawn, with some slight loss, from all such institutions to which I belonged except one, and in this last one I got pinched a little more severely. There are a few local concerns (one in Niagara Falls, N. Y., for instance) that are entirely trustworthy, because managed economically and carefully by prominent local people. They are doing good work in their line, giving to their shareholders an opportunity to accumulate some little money by means of regular monthly payments and economy, or to establish and pay for a home of their own. Ordinarily, however, these institutions are organized and managed for the chief purpose of making a soft berth for a lot of officers, and the expense accounts are run up so high that the shareholders finally have to suffer. Therefore I would not recommend them for the safe investment of your earnings. They are least trustworthy when promising a high rate of interest on the money, and in no respect equal a well-established savings-bank. The best investment, of course, is a home of your own.

IMPOVERISHING SOIL BY FERTILIZERS.—A reader asks me about the use of nitrate of soda—whether it is good for all kinds of crops, in what quantity, and whether it will leave the ground poorer. The fear is often expressed by farmers that the use of chemical fertilizers, such as acid phosphate, etc., will leave the land poorer than before. It seems to me rather strange reasoning for good farmers. Who would expect that feeding oats to a good horse to enable it to do a good day's work would make the horse poorer and weaker than it would be if it were given neither oats nor work? I am never afraid to get a day's work out of a strong, well-fed animal nor to take a full crop off strong, healthy soil. By using the whip you may be able to squeeze a little more work out of a tired and starved horse, or by using plaster, lime or salt you may squeeze an additional bushel or two of grain out of a run-down acre of land, and thereby break down the horse or ruin the land. It is certainly true that by the removal of a full crop of wheat, oats, corn or anything else we also remove a big lot of plant-food; but it would be absurd to claim that for that reason a good farmer should aim for small crops so as to remove smaller quantities of plant-food. The facts are that the good farmer raises large crops, and yet improves rather than impoverishes his soil at the same time. If the land already contains plenty of minerals, phosphoric acid and potash, and nitrogen is the only thing that is lacking, the application of nitrate of soda will most likely not only increase the crop, but also leave the soil in better condition for a succeeding crop. Or if potash is the only plant-food that is in scant supply, its application will help the present crop, and probably

put the soil in better condition for another crop. Nitrate of soda, however, cannot be expected to stay in the soil for any length of time if not taken up by plants. It is readily soluble, and is liable to be washed out in the soil-water, in drains, etc. For that reason only light applications can be advised, seldom more than from one hundred to two hundred pounds to the acre.

A VISIT AT GUELPH.—I have made another trip to the college and experiment farm at Guelph, this time in a joint excursion of the Niagara County Farmers' Club and the Welland County (Ontario) Farmers' Club. I do not believe that anybody can lift himself up by running his neighbors down. I do not believe that patriotism requires us to give immoderate and unqualified praise to our own institutions and refuse to recognize or mention the merits of other people. We are great enough to speak with freedom of the merits of our neighbors. The college and farm at Guelph is a great institution; in fact, a model in some respects—a model as an experiment station and as a school of agriculture that educates boys for the farm and farm life. The college farm is also the only strictly weedless farm of which I know. June days were busy days for Doctor Mills and his staff, for almost every day brought one or more big excursions from some part of the province to be fed and shown around. No visitor at the college grounds need go home without being filled with good and valuable points and lessons. Some of these I will briefly recount.

GRAIN TESTS.—The cereal tests of varieties and methods of seeding, fertilizing, etc., begun years ago, are still continued. From some distance the plots look as pretty as a picture, and when you come to them you see ideal stands of grain without as much as the sign of a weed. There are about two thousand such plots, of uniform and quite respectable size, as may be inferred from the fact that the aggregate area of these plots amounts to about fifty acres. Professor Zaritz, the skilful and well-known experimentalist, has made the experiment of growing grain in mixtures, especially oats, barley and peas. For the past six years, in nine cases out of ten, he has secured larger yields of both fodder and grain by growing mixtures rather than single grains. Oats and peas gave the largest yield of fodder, oats and barley the largest yield of grain. Of all the different proportions tried during the past three years, one bushel of oats to from one to one and one-half bushels of barley has proved best. Oats alone gave about two thousand pounds, barley alone eighteen hundred pounds, and the mixture twenty-two hundred pounds, of grain to the acre. Professor Zaritz is also at work trying to improve grains by selection and crossing. Of all wheat varieties, Dawson's Golden Chaff still remains at the head as a yielder. Turkey Red is the hardest wheat, but short and weak in straw, and a small yielder. There is as yet no wheat that has the quality of Turkey Red and the prolificacy of Dawson's Golden Chaff. Mr. Zaritz now has a lot of crosses of Turkey Red upon Dawson's Golden Chaff, and the combination may finally give what is desired. Another course also promises good results. This is to start with the best varieties, and then select and propagate the best plants. White Siberian has proved the best variety of oats, Manchurian the best barley. Both are of Russian origin.

GRASS TESTS.—In the grass tests it was found that tall fescue makes a splendid pasture-grass. Together with red clover, it was sown in spring, with one bushel of oats to the acre. This was the method of sowing practised uniformly with all grass mixtures, and it has resulted in the splendid stand of all grasses in the plots. Tall oat-grass and alfalfa gave the largest yield of hay; in fact, one ton to the acre more than was obtained from timothy and clover. Both grasses come in at the same time, which is not the case with timothy and clover. Besides, there is an excellent aftergrowth. The combination is good for hay or pasture, although the tall oat-grass is not quite so good in quality as timothy. Alfalfa is richer than red clover. Both grasses last a good many years. The mixture has also been sown with winter wheat in fall with good results. If it is to be sown with spring grain, it should be done as early as possible, and seed used at the rate of twelve pounds of alfalfa and twenty-six pounds of tall oat-grass. Alfalfa has proved its great value at this station also. Up to twenty tons of green fodder to the acre have been secured from it in a year. In the first year it is sometimes a little tender, and will need nursing. The stands on all the alfalfa-plots on the grounds were magnificent, and were about equal, no matter what the previous treatment of the soil or what applications of plant-food had been made in former seasons. Mr. Zaritz advises the cutting of alfalfa when not more than one third, or perhaps better, only one tenth, of the blossoms are out. The stem afterward becomes hard and woody. In curing, alfalfa should not be left too long in the hot sunshine, for fear of losing too large a proportion of the tender leaves. Finish curing in the cock. Alfalfa requires a good open subsoil, but is not particular as to the top soil.

IMPROVING GRAINS.—In the improvement of our standard cereals no doubt there is an open field that anybody can enter. The starting-point, as already mentioned, is the selection of the best variety procurable. Then comes the matter of selection. Whoever finds an especially fine plant—a plant that bears an especially large ear with especially large and plump grains—should save and propagate it. It does not require a station expert or a professional propagator to do that; in fact, many of our best things in this line, and in fruits, too, have been accidentally discovered by non-professionals (or non-professors), and owe their existence and fame to the foresight with which their discoverer saved the plant or seed from destruction or from the loss of its identity. In the course of the Guelph experiments it has been found that a large, plump seed-grain gives a larger yield than a small, plump grain or a shrunken grain. Consequently, when an improvement by selection is attempted, the parent plant should be allowed to come to full maturity, and the dead-ripe seed be saved for propagation. Every one ought to be on the lookout for fine individual plants, and take good care to propagate them.

Mr. Grundy Says:

LEAF-SCAB.—I asked an orchardist what he did to prevent leaf-scab on his apples and pears. He replied that he sprayed with Bordeaux mixture. I asked if it always had the desired effect. He said it appeared to in a favorable season. If the season was very unfavorable, he thought the mixture had very little effect. Last year was a favorable year with me, and the mixture seemed to prevent leaf-scab almost entirely. It was a great success. This year we had a very wet early spring, followed by a long dry and cold spell, every condition for leaf-scab was at its best, and Bordeaux seemed to have had about as much effect on it as so much water. I never saw trees look worse, while almost every apple will be defective. I have many times noticed that if conditions for leaf-scab are unfavorable it is easily kept in check and almost annihilated by about two applications of Bordeaux. If the applications are not made it will spread rapidly whenever conditions become favorable, which they are likely to do almost any time in the early season. So I have come to the conclusion that it pays to spray for leaf-scab every season.

RED-MITES BY THE MILLION.—The same rule applies to poultry-houses. Some seasons the little red-mites, the meanest pest the poultry-raiser has to deal with, will be almost entirely absent, while the very next they will appear by millions. One must have sharp eyes to see them. It is easy to find them with a powerful magnifying-glass, and every poultryman should have a hand-glass. It will enable him to see things that will surprise him. Then it pays to spray for the pestiferous mites every season. If the season is unfavorable for them they may be kept in check very easily, and almost any "remedy" or "killer" is effective, but if the season is favorable for their development they will appear almost in a day by millions, and one must be up and at them two or three times a week to hold them in check and prevent an attack of "cholera" from destroying his fowls. I am satisfied that mites kill more fowls and chicks than disease. I have seen the perches almost covered with them, and the owner of the fowls wondered what ailed them. An abundance of air-slaked lime and lime whitewash, with a vigorous and frequent spraying with lice and mite killers, getting into every chink, will destroy them.

THE BOY'S GARDENING.—A few days ago I saw a little fellow ten or twelve years old peddling lettuce. He had a half-bushel market-basketful, and I asked him how many heads there were. He slipped his hand in, and showed me that there were just four. The four plants filled the basket. After stripping off a very few of the outside leaves one had a great mass of tender, brittle, delicious lettuce. It was one of the smooth-leaved, cabbage sorts, and had been grown in rich soil in the boy's little garden. He said he had sown the seed in a small box about the first of March, and transplanted to the garden as soon as the soil would work up well. The plants were set about eight inches apart in rows fourteen inches apart, and they had grown so large that four of them filled a half-bushel basket. One plant made a good mess for an ordinary family, and he was selling them for five cents each. He said that as soon as the lettuce was sold he would plant the space with celery.

The day before I saw the boy selling that lettuce I heard a farmer's wife say that she had not raised a "square mess of vegetables" this season. The radishes were small, tough and bitter, and the lettuce grew so slowly that it was not fit to eat. All the "greens" she had had were a few dishes of dock and dandelion that she had dug up along the roadsides. They have plenty of land, manure, tools and teams, but the men-folks don't like gardening, and she had so much to do that she could not attend to it. A neighbor sent her about a peck of radishes and lettuce one day, and the men-folks "hogged 'em all down so quickly that she scarcely got a bite." It is safe to say that every day each one of those four men would eat and more than relish a whole head of lettuce such as the boy was selling. And they could have it as well as not, but "they don't like gardening," and consequently their bill of fare is limited to bacon, beans, corn and wheat-bread, with potatoes part of the season.

Quite a number of people asked the boy how he managed to raise such fine lettuce, and he told them just how he went about it—how he manured the ground heavily last fall, and dug it over a little at a time, working the manure all through the soil until it was about half manure; how he dug it over again last spring; how he grew and set out his plants, etc., and the more he told it to his admiring listeners the better he liked to tell it. He was unconsciously doing excellent garden-missionary work, and it is safe to say that others will grow fine lettuce-heads next year—people who never before grew a good head of lettuce, never even knew that they could be grown to such perfection, nor how much superior they are to a mere bunch of leaves, such as most people grow. Very few people seem to know that to grow first-class vegetables the land must be prepared the previous season. It will not do to wait until spring before manuring. Spring manuring means a big crop of early weeds and grass, lots of hard work and few early vegetables. We have the best success by clearing the ground and manuring heavily in the latter part of July, plowing the manure in, and sowing to turnips. Plowing and harrowing the following spring fit the soil for gardening, and we get the full benefit of the manure applied. A farmer whose soil is rather heavy clay, and who always has a good garden, tells me that after manuring heavily and plowing in July he sows cow-peas, and gives the patch no more attention until spring. The peas make a heavy growth of vine, are killed by frost, and lie on the ground until spring, when what remains of them is turned under with the plow. This is an excellent method, especially in sections where the soil is heavy.

FARM THEORY AND PRACTICE

FORESTRY.—When the matter of forestry is spoken of, we incline to refer to the theorist for consideration. It may concern the practical farmer, we say, but only in a hazy, indirect way, and one wholly beyond his control. And so the subject is dismissed as one not worth the time and consideration of a man who must look out for himself. I admit that this view was my own years ago. It was all right for a city or state to concern itself about great areas of forest that affected its water-supply, and it was to be expected that a theorist would tell farmers that they should grow trees to affect the humidity of the air, but the farmer really had naught to do with the subject. I trust that in recent years I have gotten nearer the truth, as I now begin to see that tens of thousands of landowners need specific information about timber-production, because they should be growing some timber for their financial profit. The subject of forestry will have general interest when it is realized that it concerns men who own farms containing one, two or three acres of rough land far more than it does men with large holdings of land. The latter, if their land is rough, have too big an undertaking for men of moderate means, and can never do much in the practical way of producing timber to the best advantage. The information is most needed by those who have their farms well in hand, and have only small areas that should be producing timber. With well-directed labor such men will add to the value of their farms through practical forestry on a small scale, and the aggregate of such timber-producing areas will become large before any great number of years pass by.

The pioneer in the wooded districts of this country thought only of "clearing" land, and that was the right thing for him. Ground for cropping was the necessary consideration. But this virtue in the pioneer has become almost a vice in his descendants. We have continued to praise the farmer who labors hard to keep the bluffs and thin breaks on his farm clear of any growth except grass, and as he very often cannot get or hold a stand of the latter, he has as pay for his labor only the praise of others in that his farm is "clean." Such land should not be clean. It needs a covering, and the cheap and profitable covering is made by trees. The business of the owner should be to control the varieties of timber grown so that there may be good profit in the future, and this would be the course taken by very many people if they were in possession of all the facts about varieties, rate of growth, market prices, etc. I hazard the guess that three fourths of the farms in the United States could have their value and appearance improved by plots of growing timber ranging in size from half an acre to scores of acres, according to the size of the farm.

THE STATE'S DUTY.—If it is within the state's province to foster agriculture as it has fostered all other industries, it should now place facts concerning forestry before the farmers. Our experiment stations should take the matter up vigorously. We want all the information that can be obtained by scientific investigation and that is entirely practical for the landowner. What varieties will pay us best, how may the growth be secured and controlled most cheaply, and what returns upon the investment may be expected with confidence? We have isolated experiences to encourage us, but more data of an entirely accurate kind are needed, and our stations should equip themselves with the necessary facts.

EFFECT OF FORESTS ON SOIL.—We know by observation that soils grow more fertile while producing timber. The trees use fertility, and yet leave the ground more productive. This is true not only of such varieties as the locust, which gets nitrogen from the air in the manner clover does, but of all trees. We know that some nitrogen descends in rainfall, but the amount so obtained by soils is relatively small. I was interested in an article in "Popular Science Monthly" giving data to show that the nitrogen of the air was trapped and added to the soil during the rotting of forest-leaves. I quote the following from the article mentioned: "Forest-soil, though it loses less nitrogen than arable land, nevertheless loses it; and more remarkable yet, forest-soils not only do not become poorer in nitrogen, but, on the contrary, become enriched with it, a fact readily demonstrated in poor soils planted to forests. How this loss is compensated by Nature was not known until recently. The introduction of nitrogen into forest-soils artificially is not practicable, and therefore the enrichment of the soil with nitrogen must go on under the influence of other causes. A certain number of leguminous plants grow in forests, but these are by no means sufficient to compensate for the loss of nitrogen through the felling and removal of forest-trees. Replenishing, however, always occurs, and some sources must be found to account for it. E. Henry, professor in the forest academy at Nancy, France, recently discovered a new source of enrichment of the soil with nitrogen which is of great interest to forestry. Professor Henry has proved by experiments that the loss of nitrogen in forest-soil is constantly repaired by means of absorption of atmospheric nitrogen by

All Over the Farm

fresh forest-litter." After giving a summary of the Professor's experiments, the writer continues: "A practical deduction from Professor Henry's scientific investigation is the advisability of planting cut-over areas as soon as possible, so that the young seedlings may find in the soil a quantity of nitrogen sufficient for their nourishment. The longer cut-over areas remain unplanted, the less is success to be expected from planting, as the young trees develop poorly because of insufficient nourishment. Thus the forest not only furnishes timber and other products, prevents snow and land slides, and regulates the flow of rivers, but enriches the soil with nitrogen, one of the most essential nutritive elements of plants, and in this way transforms poor soils, which have been fit only for tree-growth, into rich agricultural lands."

KEEP SOILS COVERED.—Let us draw one practical lesson from these experiments, whether we are interested in a plot of timber on the farm or not. If decaying forest-leaves entrap some fertility from the air while rotting, I think we may safely infer that all decaying vegetation does the same thing. I have never been satisfied that the supply of nitrogen in our soils could be accounted for by reference to legumes like clover, stable manure and the slight amount received in rainfall. Too many acres get none of the first two purveyors of nitrogen, and this element is always escaping from us, and yet the aggregate amount in any fair soil is quite large. We must believe that soils have other means of securing some of the expensive nitrogen, and one of these means is pointed out by the experiments mentioned. The lesson is to not leave land bare, and that the supply of vegetable material to be rotted on top or in the soil should be as abundant as possible. **DAVID.**

WEED-BATTLES LOST AND WON

A farmer is known and judged to no small extent by the weed-company he keeps about him or the absence of it. Weeds, scientifically considered as "plants out of place," are not always objectionable. It is only when they are allowed to take possession of the space and rights of more valuable plants that they become a menace. It is not uncommon to find farmers who have developed an unreasoning weed-craze, and make life a burden in their efforts to annihilate every weed, injurious or otherwise, on their places. The practical farmer will use an intelligent discrimination in his necessary warfare against the weed-hosts. It is not the rank-growing young weeds, lining up along the fence-rows and greening the unoccupied spaces, nor yet the occasional straggling weeds which have escaped the cultivator, that should disturb or compromise the farmer who is out for results. An army of puny, spindling weeds may appear among the corn, cotton or other "laid-by" crops, which will cause some disfigurement to the field at time of harvest in the eyes of the uninitiated, but their start will have been too

often be gained by selecting a crop with a view to its maturing before the weed-seed of the plant to be exterminated. The ideal defense against weeds in meadow and pasture is to get the soil so highly productive and densely sodded that in the struggle for existence the grasses and clovers will choke, dwarf and crowd out the weeds without much assistance. **B. F. W. THORPE.**

WHEN THE FARMER GOES TO TOWN

We all go sometimes, and we take with us stuff from the farm to sell. That is a part of our business, and it is quite a study how we may do it most successfully. Not every man is a success as a marketman for his own produce. It is a dread to one to go about town soliciting in his own behalf. He is glad when the ordeal is over and he has disposed of his milk, his butter or his vegetables. Such a man should not drive himself to follow this occupation. He should turn his stuff over to some one who enjoys meeting men in this way. And some do. They make a success of it because they like to rub against men in their own homes, and take pleasure in a few moments' chat.

But when the farmer goes to town, whoever he is, or whatever he has to sell, he should dress for his work. The slovenly, rough-looking man with a week's beard on his face cannot present his wares to the city customer as successfully as the one who is well dressed, clean, and shaven as if he were going to "have company." Folks notice such things, much as we may think to the contrary.

Then, every article should be put up in a neat way. If it is butter he is selling, let the package be as neat as a pin. I know a man who has a print of his own, with a beautiful flower on it. The butter he puts into this mold is simply fine. Folks look at it, and see how attractive it would be on the table, and they buy it, and pay a little more for it than they would if it were simply packed in a square or round roll. If the butter is in jars, let them be scrupulously neat—neat to look at, and neat to taste and smell.

And that leads to the thought that the butter and other produce offered for sale must not only look nice, but must be nice. You cannot build up a reputation on looks alone. If the butter sold looks well, and yet is poor, with short-keeping qualities, you have really done yourself an injury by taking so much pains in packing. You cannot make poor butter good by putting it into a beautiful mold. The first thing to do, then, is to learn how to make good butter. If it is fruit or vegetables you are offering, see to it that they are all nice, choice apples or vegetables clear down to the bottom. I have been in a position myself to know how it seemed to buy such things of farmers. I know how often the nicest stuff is put on the top, while down a little way one will find the small and imperfect fruit or vegetables. That is an actual loss to the man who sells. He might better put the very poorest on top, or better still, make two assortments, putting the good in one crate and the inferior in another, and having prices to correspond. He would make just as much, and establish a reputation for strict honesty.

And then, be honest in every way. If you promise to deliver stuff on a certain day, be there. If the lady of the house makes a mistake in giving you change, correct it, even if the error was in your favor. Keep track of all the jars and other packages you leave about town, and call for them when empty. Many men lose considerable sums by failing to get back the jars, etc. Study men and women. Try to please your customers, and be fair. Then expect success. You will be worthy of it, and it will come. **E. L. VINCENT.**

MACARONI WHEAT

Prof. M. A. Carleton, of the United States Department of Agriculture, in an address delivered at the United States Millers' Convention at Detroit June 3-5, 1903, made it very clear that the growing of the macaroni varieties of wheat is likely to prove quite profitable in the semi-arid sections, where other varieties cannot be successfully grown. No less than half a dozen of the United States macaroni-factories are now using the flour made from this wheat. The fact has been established that the improved flour-mills are able to produce a flour for macaroni-making equal to the best now imported from southern Europe. * * *

BIRD-HOUSES

In the FARM AND FIRESIDE of June 1, 1903, I note with pleasure the item, "Wren-houses," by J. F. W. I wish to tell him that sparrows can be kept out of houses designed for bluebirds by simply omitting any perch, as the sparrow cannot enter a house without a perch. All of our desirable birds are independent of the perch. **RUBY CLARK.**

DIGNIFY FARMING

If the farmer is in love with his profession, as he should be, he can, if he will, do much to elevate it and make it looked up to. Let dignity be added to labor, and the most honorable, as well as the most useful, of all occupations will be accorded its full share of respectful consideration. * * *



A FAMILIAR SCENE

late to harm the crop, which by that time will so overtop and smother the late-comers as to allow of but little damage being done either to the crop or in the maturing of weed-seed. What the careful, progressive farmer should guard against and feel disgraced by is the bristling, leafless stems of the ripened weed-plants, nodding and beckoning in the breeze to the passer-by after their matured seeds have already been scattered by wind, bird and beast to continue their mischief in future years.

The successful farm-general in the battle with the weeds is the one that assaults the successive regiments at the critical moment, before they have time to become entrenched. With cultivated crops a proper and sufficient preparation of the seed-bed is half a victory in itself. A perfectly prepared seed-bed will allow of light cultivation of the soil immediately and uninterruptedly, even before the crop appears above ground. Thus myriads of weed-seeds are put out of the race, moisture needed for the future is conserved, and the soil warmed and aerated, where otherwise early cultivation would have been so destructive as to be impracticable. In sown crops the weed-battles are also greatly assisted in the winning by perfect seed-bed preparation, thus enabling the delicate young crop-plants to be in the race from the start. Much, too, can

Gardening

By T. GREINER

IT SEEMS PRETTY HARD WORK on my grounds this year to save a few cherries from the greed of robins. I have such fine varieties, and such a full crop, too. If I want cherries for canning I must pick them long before they are ripe.

THE ONE REDEEMING FEATURE of even the most severe drought is that we can mitigate its effects by irrigation. But we can't hold umbrellas over our soil or light up an artificial sun when it rains "cats and dogs" three days out of every five and the sun remains hidden behind clouds almost for weeks.

ANOTHER BAD SEASON FOR MELONS.—Between the unusual coolness of the season, an excess of rain, and the usual abundance of the yellow-striped cucumber-beetles, my melons are having a sorry time. If the rain lets up, however, I shall yet plant the quick-growing Emerald Gem for a fall crop. My water-melons won't amount to much, though.

GREEN PEAS in full supply on the first day of summer (June 21st)! The Alaska is still at the head for an early pea, and in quality it is almost equal to the wrinkled peas. It wants strong soil to give a full crop, and then it is remarkably prolific and the pods well filled. Of course, it gives only a few pickings. By July 1st the first-planted Alaska is already supplanted by some other crop, usually celery.

A NEW EARLY STRAWBERRY.—While at Guelph, Professor Hutt showed me his trial-patch of hundreds of varieties of strawberries. He tells me that he has thrown out the Michel's Early, simply because he finds that the new Van Deman is just as early and a much better berry. Of course, I am going to try it; but I will not discard Michel's Early until I have tried the other and found it satisfactory.

THE EVERBEARING STRAWBERRIES.—A couple of years ago I let my bed of the Alpine Everbearing strawberry run out, or rather had it plowed up. I am almost sorry I did, and may procure a new stock. I like to have a few of them on the place, even if they give me no more than a taste at any time, and not much of that except in and shortly after the regular strawberry-season. The flavor, however, is exquisite. I gave them up because I thought I had larger-fruited berries in the new French Everbearing sorts recently introduced. These new Everbearers seem to be utterly worthless here. I can't get even a taste, for the few berries that do grow and come near ripening are invariably picked up by the birds, possibly on account of their fine flavor. I might have saved a few of the earlier and larger berries by putting some sort of guard or protector over the plants. I have fussed with the "French Everbearing" sorts for the past three years without even being able to get a full stand of plants. They are poor plant-makers, the plants are not rugged, and they make no particular effort to bear fruit except in the regular strawberry-season. I will have no more to do with them.

SUPPORT FOR BUSH-FRUITS.—My raspberries and blackberries have made an unusually rank growth, and many of the large blackcap canes have been knocked over and wholly or partially broken off near the roots. What is left of them I have given a severe trimming, so as to make them short and to prevent further breaking down. There is probably no easier way to give them some protecting support than by driving a little stake in each hill and tying the canes to it. My



red raspberries are supported by a line of slats on each side, the two lines being about a foot apart and three feet high. The raspberry and blackberry bushes on the New York Experiment Station grounds are nicely supported by a still simpler and cheaper device. A stout stake is driven firmly into the ground at the end of each of the rather short rows, and provided with a strong cross-arm, say about two feet from the ground. A stout wire is then stretched from arm to arm on each side, and it seems to hold the bushes up very well.

KEEPING POTATOES FOR HIGH PRICES.—Just at this time old potatoes are at a premium. Those who have kept a surplus until this time (nearly July) can easily secure from one dollar up to one dollar and twenty-five cents a bushel for them. It reminds me that there is usually a time just before our own early potatoes get big enough for use when old potatoes bring a big price. The question is whether it will pay us to keep them until this time, and incur all the risks of shrinkage, rot and other accidents and incidents, and all the labor and trouble connected with their repeated handling. It usually would if prices are low in fall or early winter. In the first place, we should try to select a variety of potato that is tardy to sprout. Of all potatoes that I am acquainted with, none keeps longer without sprouting than the Early Ohio, the very earliest good sort we have. I believe if this were kept, and planted quite late in spring or early in summer, the resulting crop might be held until potatoes came again without showing much tendency to sprout. But there is much difference in regard to the season of sprouting between different varieties. The best keeper should be

selected for late keeping. If these are properly handled they may be had in excellent shape for cooking purposes the latter part of June or during July. I find it most convenient to put them in crates, and empty them occasionally from one crate into another. If in crates, and stacked up crate upon crate, the potatoes will not be injured for culinary purposes even by exposure to some light, and this again would retard their sprouting. I do not believe that any treatment that will absolutely prevent potatoes from sprouting, and keep them in best condition for cooking, has yet been discovered. It seems to me that such a process could be found, and that it is well worth looking for.

THE STRAWBERRIES.—At this writing the strawberry-season is nearly over. I have had an abundance of berries, and enjoyed them as much as ever. The first berries I had this season came from the Michel's Early patch. This is not a high-grade berry, and is not particularly prolific. The berry is not of extra-large size, but it is early. I had berries a week before other varieties began to give ripe fruit. Thus the Michel added a whole week to my strawberry-season. The patch yielded more or less freely from June 1st until June 18th or 20th, or for nearly three weeks. The old Wilson is still a leading berry among the growers here, and it surely remains "the cook's favorite;" to such an extent, indeed, that I would hardly know how we could afford to discard it or what sort to substitute for it. We have plenty of berries that give excellent satisfaction as table-berries, but when we want berries for a first-class shortcake or for canning there is nothing that I know of that holds a candle to the Wilson. The pickers like the Brandywine on account of its size, and we like to eat it in the patch, or with cream and sugar. It is a magnificent berry here, and one especially suited for show purposes, but it does not ship quite as well as the Wilson. I planted some Clyde, simply because I had heard J. H. Hale, the peach king of Connecticut, speak quite highly of it a few years ago; but I don't like it, although I can get a fair crop of good-sized berries from it. For a late berry I have the Gandy. It has not proved much of a plant-maker for me, but the berry is large and good, and at this writing only the very first of the berries begin to ripen. It will give us strawberries for the Fourth of July. In the Granville, a new variety from Ohio, we have another very late one, although a trifle earlier than Gandy, and it gives a fairly good quantity of very dark-colored, very firm, good-sized berries that have something of the flavor of the wild fruit about them. This berry resembles our old, now discarded Long John in color, and is darker than any other that I know of. It seems to be somewhat weak in plant, however, and may need high cultivation. Nichol's No. 6, another new one from the same originator, has the same "wild" flavor, is better in plant, nearly as late, of large size, but not as highly colored. None of the one-dollar-a-plant sorts (Pan-American and Wild Wonder) are as yet making any very remarkable showing.

Fruit-Growing

By S. B. GREEN

MAKING GRAPE-JUICE

FOR general family purposes I think the best way of making grape-juice is to crush the grapes, and then bring them barely to the boiling-point. Allow them to cool, then bring them to the boiling-point again, and strain at once into self-sealing jars or bottles. With a regular canners' outfit I think one will get best results by bringing the juice in the bottles to one hundred and fifty degrees, allow to cool, then again bring it up to one hundred and fifty degrees, and seal at once. Then bring the juice in the bottles to this temperature again.

My wife puts up her grape-juice by bringing it once to the boiling-point, and holding it there without heavy boiling for perhaps five minutes, and then canning in self-sealing jars which have been thoroughly sterilized by boiling. In all our experience we have seldom had a jar spoil, and the juice is of the best flavor. However, I am disposed to think that a little of the best quality of the juice is lost by bringing it to so high a temperature, and that it is not nearly so good as the ordinary canners' method.

PEARS FOR TENNESSEE.—M. E. S., Niota, Tenn. Probably the best pears for growing in Tennessee are Keiffer, Le Conte and Garber. I do not know of any variety that does especially well in your section.

TRIMMING CUTHBERT RASPBERRIES.—C. F. L., Yankeeburg, Ohio. The Cuthbert raspberries are practically thornless. The only trimming they need is in the spring, when they should be cut back about one fourth of their length. There seems to be no special advantage gained by summer pinching. Generally they should be thinned out to about four canes to the hill.

BUNCHES ON APPLE TWIGS.—J. W. T., Ticonderoga, N. Y. I have carefully looked over the apple twigs sent, and my opinion is that the terminal buds of the twigs have been stung by some insect, and were thus caused to swell up as shown. I have occasionally seen this, but have never known it to last more than a year or two. I do not think this will cause any weakness in the trees, and I think they will soon outgrow it.

PLUM-POCKET.—M. W. S., Palm, S. D. The trouble with your plums is that the fruit is affected with what is known as plum-pocket soon after the flowers fall, and this causes them to puff up in the peculiar way which you describe. Your treatment of them I think is fairly good, although it seems to me very likely that the cottonwood-trees are so near them that they must take out too much of the moisture which should go to the plums. This disease, which is caused by a fungus, can be prevented, or at least greatly decreased, by spraying the trees thoroughly with Bordeaux mixture

early in the spring, at least two weeks before the buds expand. This has not been widely tried in your section, but the results in other parts of the country seem to show that this disease can be almost entirely prevented by employing this treatment.

THE BRUNETTE STRAWBERRY—TIME TO TRANSPLANT FRUIT-TREES.—S. C., Spring City, Tenn. I think the Brunette has perhaps the pleasantest flavor of any of the strawberries, although it is not the most productive. In your section the best time for setting them out would probably be in the autumn, soon after the autumn rains have begun.—The best time of year for transplanting cherry, plum and peach trees is early in the spring, before growth starts.

PLANTING PRUNE-SEEDS.—R. B. C., Middleport, Ohio. If you plant the seeds of the common prunes that you buy at the stores, the chances are that you will get plums or prunes of some value, but you must not expect them to be nearly as good as the kinds that you buy. However, if you wish to, you could take these seedlings and bud or graft them, and have them true to name. Scarcely any of the cultivated fruits come true from seed, the only exceptions being in the case of some of the peaches, which come very nearly true from seed. Probably the best plum for planting in southern Ohio is the Abundance.

TREATMENT FOR CHERRY-PITS.—A. R. S., Paducah, Ky. I have seldom had trouble in managing Mahaleb or other cherry pits if they were not allowed to get dry in autumn, and were mixed with sand and kept outdoors all winter. My plan is to mix the seeds with sand in boxes, as soon as gathered, and allow them to stand on the surface of the ground all winter. As soon as warm weather comes in the spring I stir them from the bottom every day, or at least frequently, until they show signs of sprouting, when I sow them in good rich loam. I am well acquainted with the Mahaleb cherry, and it is best for general nursery use, as it is healthier than the Mazzard.

BIG TREE OF CALIFORNIA.—J. R. M., Bloomingdale, Ohio. The big tree of California reproduces itself with difficulty from seed, and small seedlings are seldom found. However, it is possible to grow it from seed, and this may be obtained from J. M. Thornburn, 36 Cortlandt Street, New York City, the price of which is seventy cents an ounce. The Sequoia sempervirens is smaller than that mentioned above, and much more common in California than the redwood commonly used for lumber, and reproduces itself easier from seed, and is the best one to grow in nurseries. I have seen good specimens of this in England, where it does best in sheltered places near the sea-coast.

PEACH-CURL ON PLUM.—R. H. L. J., St. Paul, Minn. The twisted and swollen plum leaves and twigs sent are infested with what is known as peach-leaf curl, which is botanically the same as plum-pocket, it being caused by the same fungus (*Exoascus deformans*). I have never before seen any of it from any of our native plums, and the only way that I can account for it is that you have had a phenomenally moist year, and the trees have made a very succulent growth. The best work on the subject of this disease has been done by Prof. Newton B. Pierce, of Santa Anna, Cal., and it has been clearly shown by him that spraying the trees early in the spring, before the growth starts, with Bordeaux mixture is the most successful treatment. I know of no remedy that you can use this year, and think the disease will trouble you very little more this season. It is this disease that commonly affects peach-trees in some sections, causing the leaves to fall off, thus entailing serious injury to orchards.

PLANTING ARBOR-VITÆ SEED—AMOUR BARBERRY—SHADE-TREES—RED CEDAR.—P. S., Collins, Iowa. The seed of arbor-vitæ should be planted either in the autumn or in the early spring, in retentive, sandy soil, in a location where it will have a good circulation of air. After the seedlings have come up, the ground between them should be covered with about one fourth of an inch of dry sand. The whole should then be shaded with laths or a brush-screen at least three feet above the bed, sufficient to keep off about half the sunlight and make a play of light and shade over the bed.—The Amour barberry is very hardy, and a good shrub. I think, however, that it would hardly give you good satisfaction for shade in a hog-pasture.—For shade in a hog-pasture I am inclined to think that you will find nothing better than the Russian mulberry; but some care may be necessary to protect the trunks of the trees from having the bark gnawed by the hogs. They are liable to suffer in this manner when the pasture is short.—The red cedar is undoubtedly the hardiest evergreen that you can grow.

INJURED VINES—PEARS IN SOD—PEAR VARIETY.—J. W. L., West Chazy, N. Y. If your vines have killed back severely, but are sprouting vigorously from near the roots, the best way to do would be for you to select some good strong sprout, and remove all others, and let this make the future vine. If there are no sprouts coming from near the root, and the vine is in bad shape, it would be a good plan to saw it off at the top of the ground very early in the spring, when it will produce sprouts, one of which may be selected to form the future vine. It is not a good plan to do severe pruning on grapes in midsummer or later, and you had better let the vines remain as they are until next spring, and then treat as directed. I do not know why the vines killed back, but think they must have been root-killed in winter.—Pear-trees generally do best when cultivated, but if the land is very rich they are more liable to blight when cultivated than when left in sod—that is, in most sections. If your trees are making a good growth, and are fairly satisfactory in sod, I should not disturb them. On the other hand, if they are not making a satisfactory growth in wood, then I would break up the sod and give them a small amount of stable manure.—I do not know to what pear you refer, but if you will send on a specimen when ripe I think I can probably identify it for you. The variety described by you as having a bright golden-yellow skin is not Winter Nelis, as this has a russeted skin.

SHIPPING IN SUMMER

DURING the very warm weather no live poultry should be shipped to market. The loss is in most cases much too great, as the lack of good care, want of water, exhaustion and consequent falling off in weight cause too great a shrinkage, and the freights, commission and loss from the lack of condition in the fowls at the time they are sold compel returns from the merchant that are not usually very satisfactory.

PURE WATER

Unless the water is changed daily and kept very clean it will occasion disease. If a bird has the roup, or even a severe cold, the discharges from the nostrils will contaminate the water, and disease will be the result. A sick bird should always be removed, but there are occasions when the presence of a sick bird may not be known, and for that reason the water should be changed once a day, or oftener if convenient. A few drops of carbolic acid in the drinking-water will greatly assist in keeping it pure.

COCKERELS AND SPACE

It is a waste of time and food to keep cockerels that are not desired. Where only one hundred or two hundred chicks are hatched every year, one male is sufficient. Many persons who keep an account with their flocks complain that the hens do not pay, when in fact the laying hens are not only paying, but also supporting a flock of drones. The object in reducing the flock is not so much to save food as to secure more room in the poultry-house. It is in occupying space that should be given the layers that unprofitable fowls do the most injury.

LATE CHICKS

July is considered late for the hatching of chicks, but they do not come into market until November, when they can be sold at about three pounds' weight, the prices last year being fifteen cents a pound. At such prices the chicks will be profitable, as the food should not cost over fifteen cents for a three-pound chick, while the eggs for hatching and the labor required are not so great as in winter, provided lice do not attack them—but lice do not belong in a well-regulated poultry-house. If one is determined to make poultry pay, he will not let lice get a foothold either in winter or summer. There is another advantage in allowing the hens to hatch out a brood, which is that they get rid of the surplus fat, and come into better condition for laying in the fall. But there is always a good price for three-pound chicks, even when old hens are a drug on the market, and there is no reason why the poultryman should not take advantage of the warm weather and raise all the chickens

Poultry-Raising

By P. H. JACOBS

enous materials result, for which reason the feeding of grain should be moderate only, the diet being reinforced with lean meat. It is difficult to feed a flock the exact quantity required, as each individual will have its special requirements, but the point should be to not feed too much, especially as the temperature becomes warmer. Sitting hens will come off the nests reduced in flesh, as they will eat but little while incubating, and it may be added that there is nothing better for a hen that is too fat than to allow her to sit and raise a brood of chicks.

SUBURBAN FLOCKS

No one can easily estimate the number of fowls raised in cities, towns and villages. The value is millions of dollars. It demonstrates, however, that old and young, even those unfortunate in circumstances, will find a profit and pleasure in keeping poultry. A few hens will soon fill the egg-basket, and with the aid of the scraps from the table and a small allowance of extra feed, will keep up the supply until molting-time in the fall. Where the space is limited, the chicks should be used in the family or marketed when young, but the earlier hatched pullets should be kept to fill vacancies among the hens. The hens are profitable for five or six years, though occasionally there are exceptions. Young cockerels should always be sold early.

BEGINNERS WITH POULTRY

Beginners should never buy their hens from any and all sources. Select from a reliable source a few hardy hens, and breed for the kind of fowls desired. This may entail a year's loss of time, but it will be less expensive than expending a large sum for hens only to be compelled to destroy them, to say nothing of the labor involved in the eradication of lice and disease from the premises. The individuality of hens is too seldom considered. Poultrymen look to the breeds, the flocks and the broods as though flocks were uniform, and expect all to be equally thrifty. When poultrymen make it a rule to look upon each hen as differing from the others, realize that some are valuable while others are not, and persistently destroy the weaker, the damage and loss will prove but a very small item compared with the great gain and profit, and the saving of expense in favor of the strong, vigorous and hardy birds.

EGGS AND EGG-MAKING

The first eggs of the brown-egg layers are generally of a good color, but as the hen increases her laying she decreases the amount of color, owing to the fact

story of the man who hopes to succeed with ten thousand. What has been done can be done. What we hope to do is quite another thing.

The hen that is laying needs more feed than she would need if not laying. Like any other machine, she must be furnished the material from which to manufacture her finished product.

Where market-eggs are the object, it is better to have the birds of some purely distinct breed, so that the eggs may be as uniform in color and size as possible.

Keep the laying hens busy in scratching a good part of the day, and they will eat more and lay more. Feed them plenty of ground green bone, broken shells, grit and vegetables. All of these, including scraps of meat, contain the elements needed by the laying hens.

The civilized hen needs more lime than she is likely to get in her food. The hen that used to roam the wilds and lay eggs for a single brood of chicks each year needed little lime. But now we have put upon her the task of providing over one hundred eggs a year, and for the shells for that number of eggs a considerable quantity of lime is required.

Fertile eggs, with strong, vigorous germs, can be obtained only from healthy stock well cared for. Fowls require plenty of exercise, sanitary quarters and clean food, with pure water, some grit, vegetables and green cut bone or meat-meals.

Despite the various theories and methods suggested, no one has yet been able to know exactly which egg will hatch and which will fail until after a certain period of incubation; and as to discerning the sex of the prospective chick, it is an impossibility.—American Cultivator.

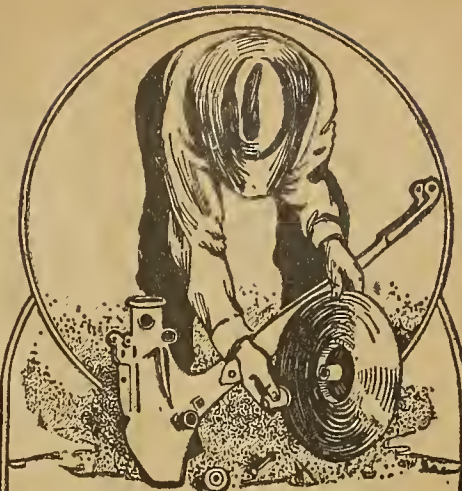
SPADING THE YARDS

Frequent rains and excessive heat will cause the yards to be in a very unhealthy condition unless the surface-soil is either spaded or turned under in some manner, especially on heavy clay locations. If spading is too laborious, then the yards may be benefited by sprinkling them with a solution of copperas or bluestone, dissolving one pound of the mineral in two gallons of water, and sprinkling through the rose of an ordinary watering-pot. A few spoonfuls of carbolic acid added to the solution will also be found of advantage.

INQUIRIES ANSWERED

SWOLLEN EYES.—A. C., Accotink, Va., desires to know "the cause of the eyes of a sitting hen swelling. Otherwise the fowl is apparently well." The cause is probably due to a draft of air on the hen from some source above her while on the nest.

LOSS OF GOSLINGS.—L. L. M., Toronto, Ohio, states that "he has a flock of goslings just feathering which lose the use of their legs. He feeds cracked corn,



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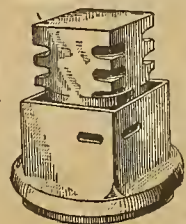
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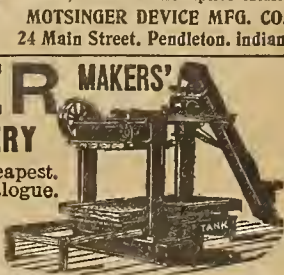


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HEAT-PRODUCING FOODS IN SUMMER

As the weather becomes warmer, the hens will naturally begin to lay, and will produce more eggs than during the cold season, which fact shows that warm weather conduces to laying as much as does the food; but the demand of the fowls for heat-producing foods will decrease, and a greater desire for nitrog-

that the pigment which provides the color for the eggs gradually diminishes.

There are hens in every flock that do not lay enough eggs to pay for their board. There are individual hens in these same flocks that do the bulk of the laying. Economy comes in by breeding from the heavy layers and getting rid of the inferior stock.

A certain amount of food is necessary to sustain life and produce an egg. If the hen does not get it, the egg-basket suffers. You cannot steal from Nature without paying the penalty.

Better the story of the man who has succeeded with a dozen fowls than the

wheat, soft bread, and they get plenty of grass." It is probable that the inquirer feeds too much, as in such a case the goslings will become very fat. Damp quarters will also cause the difficulty.

BREAKING A SITTING HEN.—J. L. L., Reading, Pa., asks "how to break a sitter from incubation." There are many methods, but the best and most humane is to have a coop made of lath or strips (lath bottom, also) and confine the hen therein. If she sits, she will feel the cold air under her (as the coop should not rest on the ground), and if she cannot create heat under her body she will abandon the nest.

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Live Stock and Dairy

THE COW THAT EATS HER HEAD OFF

There are a good many things about farm life that are not profitable. One of them is keeping a cow that will eat her own head off once or twice during every year. And there are those that do. We all have them unless we have made the most determined effort to get rid of them and put in their places cows that do not have to be maintained at public expense. These cows are like the men and women of society who go up and down the land doing nothing for the world, but stopping all along the way, either to demand the living they claim is due them or foisting themselves upon the public to be kept during the term of their natural lives out of the general fund. These men we have, and the Good Book says we will always have them; but the poor cows we do not necessarily need to keep.

Every man needs strength of purpose to weed out his dairy. Sometimes the cow that ought to go is a nice, gentle creature, the favorite of the boys or the good wife. They cannot bear to think of seeing her go, and every time we suggest selling her a powerful plea comes up in her behalf. So we keep her another year. Perhaps we do not know just what a profitless cow she is. We never have had our cows tested individually. We realize that we are not making as much butter from our herds as we ought. The neighbor over the way with fewer cows beats us all hollow, and we wonder why. The best investment any of us could make would be in a good, reliable testing-machine. They do not cost much nowadays—not half so much as the feed we give the poor cow. But if we can not, or will not, buy the testing-machine, there are always plenty of men who have them, and for a trifling sum we may have the milk of each cow tested. The result is often surprising. The cow we like the best, and which we fancied such a good one, proves to be the very poorest of all. But shall we turn her off after one trial? No. There may be something in the day or the condition of the cow that makes her do more poorly than she will at any other time. So give her another chance. Wait two or three weeks, and try again. Perhaps even a third trial may be necessary to get at the truth. But do it, and settle the question just what each cow is doing, and then act accordingly.

But what shall we do with the profitless cow? Sell her to the neighbor who needs another cow? How would you like him to do that by you? It takes an honest man to sell a poor cow. Any one can sell a good one. Then he can stand right up, and point out every good quality. It gives him a pleasure to do that. But the poor cow—why, the owner feels all the time as if he were doing a mean thing if he asks his neighbor to buy her; and he is not mistaken about it, he is. What then? Sell the cow for beef. Fatten her at the close of the season, and march her to the shambles like a man. It may be you will not get as much for her as you would from the man next door, but you will feel much better about it, and so will he.

And then? Well, then get a good cow. How? Buy her, if you can, of a man you can depend upon. If not, raise her from a calf. It may be a slower process, but it is more satisfactory. "Try, try again," must be the farmer's motto; and it must be patiently kept up for years until we get a herd that will give us back a margin of profit for the feed we invest and the care we give.

E. L. VINCENT.

SALTING STOCK

I noticed in the FARM AND FIRESIDE of June 1st a line under a picture which read, "A wise feeder salts his cattle regularly." The man is sprinkling salt on the ground, and the cattle are licking up as much dirt as salt.

In my ten years of farming I have made it a rule to keep small troughs filled with salt near my lot-gate, and I notice that the cattle are there every day after salt. All stock need salt, and should have it where they can get it when they want it.

Every time a man eats, salt is in some of his food, and we might just as well limit him to salt once or twice a week as to limit our dumb animals to that amount.

I have heard of farmers who were afraid to let hogs get any salt, as they thought it would kill them. I have a salt-trough for my hogs, and I find that summer and winter, dust, snow or mud, all paths lead to that trough. I am never afraid of giving them too much, for they have it when they want it.

MARGARET K. RAILEY.

HAY IN ALABAMA

V. L., of Vernon, Ala., writes: "I am thinking of going into the cattle business, and need some advice. I live in western Alabama, a fairly good farming-section. My farm is on Yellow Creek, a light, sandy soil. Would Johnson grass suit the soil, or what kind of grass would you recommend for hay? I have a good many cows, some of which are grade Jerseys, but I need a male. What stock or blood do you think is the best?"

I have had no personal experience with Johnson grass, but from what I have heard and read it is regarded by some as a blessing, and by others just the opposite. There is no doubt that you can get it to grow on your land, but the rub may come in ever getting it to stop growing if you should want to. It is described by one writer as "one of the most valuable hay-grasses, and at the same time one of the most pestiferous weeds." There is no doubt of the value of the hay made from this grass, and the yields on land suitable to its growth are heavy—frequently from three to five tons—but the serious matter of eradicating the grass, and its tendency to spread to land where it is not desired, make the wisdom of sowing it on clean land open to doubt, and our correspondent should not seek to establish what may be a plague to him without further investigation among his neighbors.

I cannot recommend anything more highly for hay in Alabama than cow-peas, which, green or dry, make one of the most valuable feeds for cows or any kind of live stock, and are wonderful improvers of the soil. The Southern practice of growing this crop and plowing, or "scratching," it under is wasteful, as a lot of feed is lost that should be fed to profitable animals and the manure returned to the soil to make more peas grow. I have seen much valuable land in the South wasting fearfully by being allowed to lie bare all winter. If this correspondent will make hay of his cow-peas, and as soon as they are harvested will fine the soil two or three inches deep, and sow crimson clover and orchard-grass—ten pounds of the former and fifteen pounds of the latter to the acre—I think he can cut some fine hay next spring. Do this on a small area, experimentally. On the balance of the land sow two bushels of rye to the acre, and have fine pasturage all winter. Both these crops will also stop the everlasting loss of soil by winter rains. After the winter pasturing of the rye, by giving it a chance in the spring a good crop of hay may be cut as the rye blooms. When cut for hay neither of these crops will interfere with the plowing of the land for any of the summer crops.

As to the best breed of cows for milk and butter, V. L. has already made a wise choice. There may be others as good; there are none better, and many not so good. The grades should be stimulated to their best by abundant and wise feeding. The standard of the herd should be raised by breeding with a pure-blood bull—not one with merely the Jersey color, but one with a good, pure pedigree behind him. He should be from a good sire and dam, and be well fed and cared for.

W. F. McSPARRAN.

INTESTINAL PARASITES OF SHEEP

In the course of a month we will have the usual complaints of parasites in sheep, particularly the stomach-worm and the fringed tapeworm. It is difficult to cure sheep, and especially lambs, affected with these parasites. The stomach-worm does not seem to affect the old sheep, nor does it particularly injure the early, well-fed lamb, but it is death to the late, ill-fed lamb. The fringed tapeworm is less common among sheep in the corn states, but is quite common in the sheep on the range. In either case, prevention is better than cure.

Sooner or later the advent of these diseases is inevitable if the farmer keeps sheep on the same pasture from year to year. It is an old maxim that change of pasture is good for sheep. It is good, also, for the farmer's pocketbook; it is good for the lambs; it is a good thing all around. It is worth all the medicine ever invented.—Wallaces' Farmer.

REMEDY FOR GARGET

Having noticed a great many statements in regard to garget, I will state my experience with a remedy which I have used for a great many years without a single failure. The cure is one ounce of hydrate of potash in one pint of cold water. Dose, one tablespoonful in the feed at the first intimation of the trouble. Bottle, and keep always ready.

J. L. WOODARD.

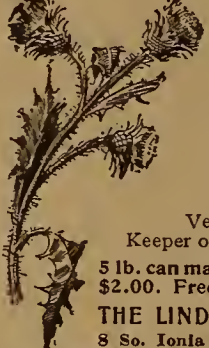
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Live Stock and Dairy

DEVON CATTLE

A GOOD deal is being said these days about the different breeds of cattle, but I see little about the Devon. I suppose it is because the Devon men are modest folks, and do not care to make a great noise about their favorites.

This reminds me of the silent duck that had faithfully stuck to business during the summer and laid several dozen large eggs, and then complained that she was not appreciated.

"See that hen over there?" said the duck. "She hasn't laid so many eggs as I have, nor so big, but she has books written about her, and verses composed in her honor, while no one is saying a word about me."

"The trouble with you," said a wise Buff Leghorn cock that was standing near, "is that you don't tell the public what you have done. You lay an egg, and waddle off without saying a word, while that sister of mine never lays an egg without letting everybody in the neighborhood know it."

So with the Devon. She is meekly doing her duty, and making as much milk, butter and beef as any other breed, but she has not made noise enough about it.

The Devon is one of the oldest breeds in the United States, having been imported, no doubt, along with the Pilgrim fathers. There are not very many of them in the Central West, but from Indiana east they are quite numerous, and they are growing much in favor in all sections.

For the ranchman of the plains the Devons are second to none. They are hardy, and will live on short pastures and short feed. When put on the same feed and given the same care, they will produce as much beef to the bushel of feed consumed as any other breed. I make this statement without fear of contradiction, knowing from experience and the experience of those who have tried them with other breeds that they are the equal of other breeds in all respects.

While I do not claim they are the

ranch, and I find they will last two or three years longer on the range than Shorthorns, and are always in better fix. They have proved to be the best breeders, have a good calf every year, and the steers are good ones. This is a short-grass country, and we want cattle that can get a move on themselves."

A California ranchman who has over one hundred Devons on his ranch says, "This is a dry country, and we find the Devons do better than any other breed where they have to go a long distance to water. Our bulls find ready sale all over the coast. The Devons are not only an excellent beef-breed, but are also great milkers."

For beef the Devon is second to none. The steers grow large—two-year-olds weigh from sixteen hundred to seventeen hundred pounds when well cared for. Bulls weigh from seventeen hundred to twenty-one hundred pounds, cows from nine hundred to fourteen hundred pounds. They fatten at any age. In fact, the Devon is the farmer's cow, or three-purpose breed—beef, milk and butter.

I might give more proofs of their merits, but think the above is sufficient to show that the Devons are worthy of a place among the best. L. P. Sisson.

COW-CATCHERS

The wisest builder of a good pedigree is a good feeder, for if an animal intended for the dairy cannot be provided with an inclination and capacity for plenty of feed, a red-lettered pedigree will not save her from being a scrub.

They say that the cow's olfactories are about ten times as acute as those of man. If this is true, the necessity of keeping the feeding-trough, the drinking-vessel and all the surroundings of the cow clean becomes very apparent.

Any feed left in the trough becomes very distasteful to the cow. She refused to eat it either because she had eaten enough, or because it was not good, or for some other cause. Its remaining there



A TYPICAL DEVON COW

heaviest milkers, I do claim that they hold out well, often milking up until calving. In one week Lady Alice 8130 gave 347 pounds of milk testing 4 per cent butter-fat, equivalent to 16.19 pounds of butter. For thirty-one days she gave 1470.5 pounds of milk equal to 68.6 pounds of butter. A herd of twelve cows, seven of which were fresh from three to six months, three from nine to eleven months, and two of which are now fresh, made 15 pounds of butter a day.

At a test of Jerseys, Alderneys and Devons held at Worcester, Mass., the Devons were second in the list, being only .6 of an ounce below the highest. One of the Devon cows in this test increased her flow of milk from 37 pounds to 53 pounds a day.

At a milk test at an Indiana county fair four Jerseys were pitted against four Devons, with the following result: The Jerseys tested 5.8, 6.4, 6.6 and 7.2 per cent butter-fat, the Devons 6.4, 6.6, 6.8 and 8 per cent butter-fat. A Pennsylvania breeder who takes his milk to the creamery with Jerseys, Holsteins and other breeds says, "My Devons test as high as, and often higher than, the others, and I get more milk from my herd than the others, and on less feed."

A South Dakota man writes as follows: "I have a few Devon cows on my

to be breathed upon and grow more stale is not calculated to stimulate her desire for the next feed, while to toss the next feed in on the old is not a saving of the old, but a loss of the best of the new.

The cow should come to each feed with a gustatory keenness that insures good digestion, and the dainty cow likes clean dishes. The mangers should be cleaned out after the last feed, not just before the next one.

The water for the cows should be abundant and pure. Pure water in unlimited quantities is essential for the health of the cow. By it comes bodily purification. With unclean or contaminated water the purification cannot be complete. Water is necessary also for the best digestion of food, and without all the water she needs the cow is fed wastefully. But water is not essential food. Milk is about eighty-five per cent water. Some one has said that "some milk is very much more than eighty-five per cent water," but that is not the fault of the cow or the pasture. When the cow has insufficient water she does not make milk with less water in it, so that an artificial addition by the milkman is necessary; she simply makes less milk.

W. F. McSPARRAN.

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| 286b Danube River.....Aide | 344b My Happy Childhood Home.....Allen |
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| 176b Darling Nellie Gray.....Hanby | 170b My Old Kentucky Home.....Foster |
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| 70b Dear Heart, We're Growing Old.....Estabrooke | 228b Old Folks at Home (Swanee Ribber).....Foster |
| 302b Dear Little Heart 'Neath the Daises.....Rutledge | 270b Old Village Church.....Hatton |
| 304b Did You Ever Call Me Darling?.....Vane | 104b On the Banks of the Beautiful River.....Estabrooke |
| 128b Don't Drink, My Boy, To-night. Temp. Hoover | 90b On the Beach. Beautiful Ballad.....Robinson |
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| 348b Dream of Spring, A. Op. 1, 2.....Curschmann | 160b Outcast, An. Character Song.....Fritz |
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| 272b How Can I Leave Thee? Duet.....Greenwood | 38b True to the Last.....Adams |
| 184b I Can't Forget the Happy Past.....Skelly | 252b Warrior Bold.....Adams |
| 248b In Shadowland.....Pinsuti | 84b What are the Wild Waves Saying? Duet.....Glover |
| 266b In Summer Time.....Marzials | 166b Whistling Wife, The. Comic.....Randall |
| 296b It is a Legend Old.....Offenbach | 212b Why am I Ever Watching?.....de Lasade |
| | 218b Why Do Summer Roses Fade?.....Barker |
| | 338b Wish, A.....Chopin |
| | 300b Yellow Roses.....Watson |
| | 322b Zelma Lee. Chorus.....Estabrooke |

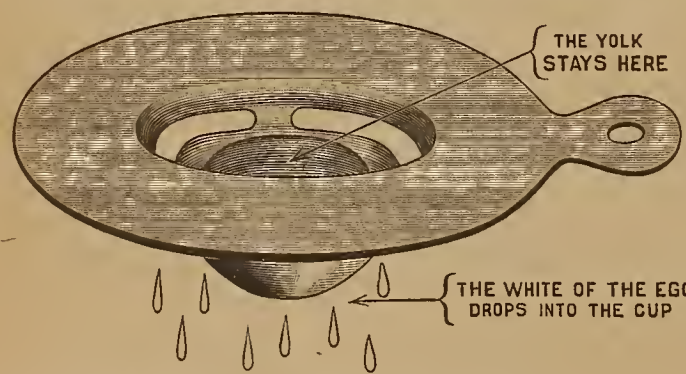
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- 2 We will send the Farm and Fireside One Year and ANY SIX of these Pieces for only 60 Cents.

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Biggest Cash Commissions

The Grange

By MRS. MARY E. LEE

GRANGE FIELD-MEETINGS, OR PICNICS

THESE meetings afford rare opportunity for the dissemination of grange-principles. Those having local charge of these meetings should spare no effort to make them as valuable to the order and the public as possible. The meetings should promote social and fraternal greetings, and extend the acquaintance of members and others with all the good people in a radius of twenty or twenty-five miles of each meeting. To secure large attendance and the best people, system must be employed.

The Pomona or subordinate grange having the meeting in charge should appoint active and energetic committees on program, on arrangements and grounds, on music, on advertising, invitation and printing, on reception. Every detail of the meeting should be thought out, and provision made to make the meeting pleasing, entertaining, enjoyable and profitable to all who may attend.

If the committee on invitation should have printed a circular-letter cordially inviting those to whom it may be addressed and their families to attend, and mail or deliver to every family whom you would like to be present, it would add largely to the attendance.

Large supplies of grange-literature should be judiciously distributed with the letters of invitation and at the meetings. This will afford members an opportunity to inquire after the meeting as to the impressions made by the literature or at the meeting, and secure a good many applications. Patrons of Husbandry should remember that when those not members of the order are favorably impressed with its objects, purposes and work, it is a good time to secure their active coöperation and membership.

The public press should be used before and after the meetings to advertise the meetings and secure a large attendance, and to review the incidents and arguments presented of the benefit of the grange to its members and the public generally. In many parts of our country the local press has been of great advantage in popularizing the grange. The grange press has been and is doing much for the order, and should have full reports of the thousands of field-meetings to be held during the coming summer, thus keeping the membership advised of the activity and effort throughout the entire country to educate the people to the necessity of farmers' organization to the advancement of the cause of agriculture and good citizenship. Members of the grange have not fully realized in the past how much our order is indebted to the grange press and to the local press of the country for the promulgation of grange-principles and the advancement of the cause of our fraternity. Our members should not only contribute interesting articles for their columns, but should subscribe for them and be active in extending their circulation, that they may be of greater service to our order and have greater influence in educating and molding public thought in the interest of the common people of the country. Now that free rural-mail delivery is so general, farmers ought to have a grange-paper come to them each day, chronicling all grange-news and market reports, with a synopsis of the news of the world.

Patrons, permit me to remind you, "Whatever we do, strive to do it well." Make your field-meetings this year the best ever held in your county, always keeping in mind our motto, "In essentials, unity; in non-essentials, liberty; in all things, charity." Fraternaly,
AARON JONES,
Master National Grange.

ITINERARY OF NATIONAL MASTER JONES

Aaron Jones, Master of the National Grange, has accepted invitations to address meetings arranged by the Masters of the respective state granges as follows: Kentucky, July 15th, 16th, 17th and 18th; South Carolina, July 21st, 22d, 23d, 24th and 25th; West Virginia, July 29th, 30th, 31st and August 1st; Massachusetts, August 4th, 5th, 6th and 7th; New Hampshire, August 13th, 14th and 15th; New York, August 17th, 18th, 19th and 20th; Indiana, August 24th, 25th, 26th, 27th, 28th, 29th and 31st; Ohio, September 1st, 2d, 3d and 4th.

ADDRESS OF NATIONAL MASTER JONES

Patrons and others desiring to write to National Master Jones can save time by addressing him as follows: July 14th to 18th, Liberty Hill, S. C., care of Hon. W. K. Thompson, Master South Carolina State Grange; July 18th to 28th, Morgantown, W. Va., care of Hon. T. C.

Atkeson, Master West Virginia State Grange; July 28th to August 2d, Sturbridge, Mass., care of Hon. Geo. S. Ladd, Master Massachusetts State Grange; August 2d to 8th, Concord, N. H., care of Governor Bachelder, Master New Hampshire State Grange; August 8th to 16th, Sodus, N. Y., care of Hon. E. B. Norris, Master New York State Grange.

WING'S CREED

Here are three articles of J. E. Wing's Creed. We are indebted to the "Breeder's Gazette" for them. Of course there is no intelligent American farmer who needs to be told who Wing is. His creed fits well with that of the grange:

"We believe in maintaining the fertility that God put in the land, and in adding steadily to it by use of clovers and animal-manures.

"We believe in salvation through blood, coupled with feed and comfort.

"We believe in the eternal damnation of those who waste the land, perpetuate scrubs, and try to starve dollars out of acres and cows."

THE OBSERVATORY

He liveth best who loveth best
All things, both great and small;
For the good God who loveth us,
He made and loveth all.

—Bryant.

Convert "I want to do" into "I have done."

Chronic discontent is chronic weakness of purpose.

Keep things moving. Even a quarrel will die if not stirred up.

You can measure a man's soul by the way he fences the road.

And now for a device to "ring off" the time-killer on a telephone line.

Education, coöperation, moral and spiritual development, are the high aims of the grange.

Clean up thine own back yard, and then canst thou see clearly to clean the yard of thy neighbor.

Pray for the success of the grange, to be sure, but don't forget to bring your prayer to pass.

When every farmer makes this his motto: "Sell for cash, and pay cash," his financial well-being is assured.

Before blaming others for accomplishing little, see if you have exhausted your own resources in doing much.

Idle desires, half-uttered longings, accomplish no results. Persistent, wisely directed labor alone fights life's battles.

What the world needs, not to-day only, but all days, is men who seek truth for Truth's sake, and fight her battles.

The "Monroe Doctrine," "Friendship for all, entangling alliances with none," is wise for the grange as well as for the Union.

Many other corporations besides the Northern Securities Company could stand a drought with benefit to themselves and the public.

Put your faith into words and deeds. It needs only patient, persistent, tactful, wise endeavor to bring to pass all the things you desire. You may not see it this year or next, but Nature is just. She rewards each according to the labor he performs.

She who "trades out" butter and eggs at the country store is likely to trade her daughter out of a few terms of music, her son out of a college education, and herself out of coveted pictures, books and magazines. Of course, if she is of the goody-good type, she can view the objects of her ambition at the merchant's home with complacency.

Lowell could never have sweltered over a hot stove, or followed a row of corn in the blazing sun, else he could not have written that gem, "What is so rare as a day in June." Better give it permanent lodging in your mind, and be thankful that there are those who can interpret the beautiful for us. Get down your "Vision of Sir Launfal," and read it.

CORRECTING THE ACCOUNT OF AN ADMINISTRATOR

J. M. R., Ohio, asks: "A final account of an administrator passed in court. Afterward he finds that he has omitted an item. Can he have it corrected, and how?"

Yes, the account could be corrected, but as to the method to be pursued the matter is not so clear. If there is no other way, a suit could be filed in the court of common pleas for its correction.

EXEMPTIONS

E. S., Ohio, asks: "What is allowed a widow at law—a farmer's widow who carries on her husband's business?"

I presume the inquirer wishes to know to what exemptions she is entitled. She is entitled to hold a homestead of one thousand dollars in value, or five hundred dollars in lieu of a homestead.

CONTRACT FOR SALE OF REAL ESTATE

W. B., Ohio, writes: "What is the law in regard to A. selling his farm to B., receiving five hundred dollars down and making an article signed by himself and his wife? Can B. hold the farm? If A. and his wife will not sign the deed, will the court make a deed for B., or can B. get damages?"

Yes, B. can bring an action in court, and force A. and his wife to execute a deed. B. might likewise elect not to take the farm, but sue and recover damages.

CONSTRUCTION OF WILL

D. E. J., New York, inquires: "If a man wills his wife the use of his real and personal estate, at her death to be divided equally among his children, can they sell the real estate during her lifetime?"

The answer to the above question would depend somewhat upon the fact whether or not the fee or title to the real estate was in the children or in a trustee. If in the children, they could sell. The person to whom they sold could not use the estate until the wife died.

SAWING TIMBER

J. F., Ohio, writes: "If a farmer hires a sawmill to come on his land to saw some lumber for him, paying a certain sum a foot for the sawed lumber, can the owner of the sawmill claim any of the slabs or any offall other than what he uses for fuel? Can he claim the wood for fuel if not previously agreed upon?"

Unless custom has made a contract to the contrary, I should think that the slabs would belong to the farmer.

LIABILITY FOR DRIVING CATTLE ALONG UNINCLOSED HIGHWAYS

A subscriber, Ohio, makes this inquiry: "Is a cattle-driver, in driving along the public highway where there are no fences, liable for damages done to crops when he loses control of his cattle and

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

they get in the crops and destroy same? Is he liable to a trespass-fine for riding a horse in the crops to get the cattle?"

The cattle-driver is not liable if he exercises a reasonable degree of care in keeping the animals on the highway. It is a proper use of the highway to drive cattle over it; and if in spite of the exercise of reasonable care they go into adjoining fields, the driver has the right, in a reasonable manner, to get them out.

ILLEGAL MARRIAGE

E. P., Ohio, says: "Mr. A., aged twenty, and Miss B., aged seventeen, are married. He got the written consent of his parents, and she gave her age as eighteen. What can B.'s parents do?"

Of course the marriage is illegal, but would be legalized if A. and B. lived together as man and wife after she became eighteen years of age. Usually the person getting the marriage license is compelled to swear to the facts, and if he swore that she was eighteen when she was not, he could be prosecuted for perjury.

PATENT FOR LAND

J. R., Pennsylvania, wishes to know "how to find out whether a certain tract of land has been patented, and also how a husband could dispose of his property so his wife and children would have the full benefit of it, without an administrator being appointed."

Write to the Land Commissioner at Washington, describe the land, and he will answer whether it is patented or not. The husband might make a will, giving all his property to his wife and children in any way he saw fit. This might not, however, prevent an administrator being appointed if there were credits to collect.

LINE FENCE

The subject of line fence is ever one of interest to the farmer. E. L., Ohio, makes this inquiry: "One party expects to make a hog-lot of a field that takes quite a strip of fence over rough ground and hills. We keep only cattle on that part of the farm, but no hogs. Will it be necessary for me to build my part of that fence proof against little pigs, to keep them from my corn-field? What would be a lawful fence? If he puts in an anchor-post, can I fasten onto it without his consent? Can a man abandon a line fence if no stock is kept in fields?"

A fence that the law considers proper to be built on a line is such a one that will turn stock ordinarily put in another field. While it may act unjustly, I presume if your neighbor wishes to put pigs

in his pasture, and you do not want them to get over the line, the line fence will have to be made in such condition as to keep them in their proper pasture. If they get through your line fence, you will have to make your

fence so as to keep them out. There is no statute on the subject. I see no reason why you could not fasten onto his anchor-post. The law would hardly require two posts to be put next to each other. A line fence cannot be abandoned under six-months' notice.

STATUTE OF LIMITATION—RIGHT OF PROPERTY

Z. G., New York, propounds the following: "Does a note or a book-account become outlawed in six years if there has been nothing paid on it?—A. has a grocery-store. B. calls for a bill of groceries, which A. puts up. B. says he cannot pay for them now, and A. forbids him to take them from his counter. Has B. a right to take them?"

Yes.—B. has no right to take the property until he has paid for it. The mere fact that A. put it up into a package and laid it on the counter would not be held such a delivery of it as to deprive him of his right to retain it until paid for. If B. would have taken the goods out of the store, or out of A.'s possession, he could have retained them.

TAX—NOTES—CUTTING TIMBER

M. M. S., Ohio, puts the following queries: "A. gave B. twenty sheep on shares for three years, at which time they should be equally divided. Nothing was said of the taxes. B. gave them in to the assessor in A.'s name. Who should pay the taxes? If A. paid them, could he recover it from B. when the sheep are divided?—On the day of her marriage, B. gives A., her husband, some money, taking a note for the amount. Can she collect it, and how long will the note run before outlawed?—A. and B. join farms, the line running through timber. A. cut trees which B. felt sure belonged to him. He objected, but A. paid no attention. On running the line it was found that the trees belonged to B. What would be best for B. to do?"

I should think the taxes ought to be borne equally by the parties. If A. pays all of them, when the sheep are divided B. ought to pay his share, for when the sheep were delivered to B., under the contract set forth, they became partnership property.—Yes, the note can be collected: It would run for fifteen years from the time it was due, or fifteen years from the time that a payment had been made thereon.—The best thing for B. to do would be to call on A. and demand payment for the timber cut. If A. refuses, B. could sue A. and recover the value of the timber.



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Automatic and Non-Ejecting

The cheapest absolutely safe gun, with improvements found heretofore only in the highest priced. Perfect in model and construction. Simplest "take down" gun made. Top snap; center hammer; rebounding lock. Your dealer can supply, or we will sell to you direct.

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THE LUCKY "4-LEAF CLOVER"



Plymouth Cream Extractor is the CREAM of them all. Inner can quickly removable; water all around and under milk; has far greater cooling surface than any other. No water required 5 months in year. Special air chamber with ventilator. New and original faucet, impossible to leak or sour. Express charges prepaid. Catalogue free.

Plymouth Cream Separator Company, Plymouth, Ohio.

Live Young Men

If you have a team and wagon and can get bond we'll start you in a business of your own, selling our 32 standard remedies, extracts, etc. We give you credit. No experience necessary. Good commission, exclusive territory, liberal advertising. We have 325 bonded canvassers now at work. Write to-day.

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If afflicted with weak eyes, use Thompson's Eye Water

THE PREVENTION OF TYPHOID FEVER

An instructive study of the aetiology of typhoid fever is furnished by Dr. A. Seibert, in the New York "Medical Journal." He presents a series of charts which graphically show the influence of filtered and unfiltered water upon the mortality of this disease. Especially noteworthy is the chart received from the health department of Berlin.

From this we learn that from 1843 to 1853 one out of every nine hundred inhabitants died yearly of typhoid fever. Since 1891, when a sand-filter had been installed and all the old wells banished, the death-rate from this disease has dropped to one in every fifty thousand. Similar results from the installation of filters were obtained in Hamburg, Hanover and other German cities. In Chicago the rate dropped from one in every four hundred and fifty to one in every eight thousand upon the removal of the suction-pipes of the waterworks in Lake Michigan to a greater distance from the main sewers. In New York, Brooklyn and Boston, where the water is unfiltered, the death-rate averages one in every seven thousand to eight thousand. Doctor Seibert gives the following results of his painstaking investigations: All rivers, brooks and lakes in the populated districts of the United States and Germany are permanently infected with the typhoid bacillus. The drinking-water of cities and towns is the chief carrier of typhoid germs. All cities and towns which take their drinking-water from rivers, creeks or lakes should cleanse it by sand-filters at the waterworks. Physicians should warn their patients that the small, so-called filters which are screwed onto the faucets are useless as

The Family Physician

By ROBERT B. HOUSE, M.D.

a preventive of germ-infection. Indeed, unless frequently cleaned they are positively dangerous. Boiling the water is a sure preventive of typhoid, but it takes all the life and sparkle from the water and discourages its use as a beverage. A better way for those in large cities is to purchase one of the spring-waters sold by a reputable company. This costs less than the price of one cigar a day, and practically banishes all danger of infection. Milk, which is also a carrier of the typhoid bacillus, should be regularly inspected by the boards of health, and bought only from those dealers who can show a clean certificate.

The solving of the sewage problem, together with proper precautions in the furnishing of drinking-water, should stop the ravages of this dread disease.

THE PRESERVATION OF THE TEETH OF CHILDREN

Without good teeth there cannot be good mastication. Without thorough mastication there cannot be perfect digestion, and poor health results. Clean teeth do not decay. The importance of a sound first set of teeth is equally as great to the child as a sound second set is to the adult. Children should be taught to use the tooth-brush early. Food left on the teeth ferments, and the acid formed produces decay. Decay leads in time to pain and the total destruction of the tooth. The substance of the following rules should therefore be impressed constantly upon all children: 1. The teeth should be cleaned at

least once daily. 2. The best time to clean the teeth is after the last meal. 3. A small tooth-brush, with stiff bristles, should be used, brushing up and down and across, and inside and outside, and in between the teeth. 4. A simple tooth-powder or a little soap and some precipitated chalk taken up on the brush may be used if the teeth are dirty or stained. 5. It is a good practice to rinse the mouth out after every meal. 6. All rough usage of the teeth, such as cracking nuts, biting thread, etc., should be avoided, but the proper use of the teeth in chewing is good for them. When decay occurs it should be attended to long before any pain results. It is stopping a small cavity that is of the greatest service. In ten thousand children's mouths examined, eighty-six out of every one hundred required skilled treatment.—Journal of British Dental Association.

HANDS AND THE RAVAGES OF TIME

Hands show the ravages of time more than any other part of the body. Scientists attest the fact, and the hands of celebrated beauties prove the theory beyond argument. Between the ages of seventeen and eighteen the hand develops into the maturity of beauty and symmetry. Until almost thirty the hand if subject to rigid care practically remains unchanged. At thirty an almost imperceptible change begins, and despite constant attention, the beauty wanes. The skin wrinkles and grows dry, the joints grow shapeless and enlarged. The shrinking of the flesh displays the faults which the plumpness of youth had covered up. The fingers are no longer nimble, and the muscles begin to stiffen with increasing age.

Prize-Winners for WATCH-COUPON BOOKS

Month Ending June 25th

The following are the names of the persons who received prizes for selling the "WATCH-COUPON BOOKS" in the shortest length of time during the month ending June 25th:

First Prize, \$3.00 Cash: J. M. Watkins, Havana, Ark.

Second Prize, \$2.00 Cash: Fred Pleffer, Gainesville, Ga.

The next FIVE Prizes, \$1.00 Each:

J. O. Primer, Biltmore, N. C. J. P. Thompson, Archer, Tenn. Geo. C. Smith, Scottsdale, Pa. Edwin Davis, Columbus, S. C. Harvey W. Hite, Fullerton, Cal.

The next TWENTY-FIVE, Picture "Columbus at the Royal Court of Spain."

B. B. VanArsdale, Copopa, Ohio. Phillip Hannum, Riverton, Neb. Benj. Colburn, Palmer, Neb. Lela Thompson, Kenton, Ohio. H. E. Kirby, Clover, Va. Roy G. McCollum, Atwood, Tenn. Walter McElroy, Pleasant Hill, La. Joe Gould, Orion, Ill. C. M. Taylor, Lyndenville, Vt. Frank Hartley, Elwood, Ind. Don. C. Young, Bismarck, Ill. Kenyon L. Mitchel, Zanesville, Ohio. J. H. Mize, Bunker Hill, Ill. Raymond Jewell, Livermore, Pa. Henry E. Seyfert, Bridgeport, Conn. Norman L. Bradfield, Sidney, Ill. Raymond Davenport, Gallandet, Ind. Clarence Hoskins, Vea, Iowa. Ed. Clark, Milford Center, Ohio. Ephie Vail, East Oakfield, N. Y. N. B. Edmeston, Wellington, Ohio. Frank Chapman, Brazil, Ind. Martin Tumey, Barnesburg, Ohio. Samuel Goldby, Rocton, Ill. J. M. Rice, Perry, Okla.

No more prizes will be awarded after the month of June, as we consider the watch a great big prize in itself for any boy or girl. See advertisement elsewhere in this paper. There are other inducements.

TAKE TEA IN THE OPEN

HERE are many little ways in which dwellers in towns and cities can "have a change" during the hot summer months. We cannot all go to seaside and mountains, but we can all "make the best of it," and by some ingenuity we may find this "best" better than anything we have yet attempted.

Have you a bit of lawn, or anything in the way of a back veranda? Plan, then, for a meal outdoors once in a short while. If there is anything of youth and appreciation left in you, it will be a delicious surprise to find out what a difference eating in the open air makes.

Last summer we took several Sunday-evening lunches outdoors, and we have no lawn—nothing better than a back veranda two stories up in the heart of hot Chicago. But the memory of those quiet stay-at-home picnics have a bit of glamour about them still. We managed this way: A small table was carried outside and recklessly covered with the very best of the linen and embroidered doilies. Those bits of Mexican drawn-work were never more appreciated than they were that hot August day when we initiated our costless outing. This was our supper: Nut-and-lettuce sandwiches—dainty, refreshing things to prepare, minus all the coarseness of animal-grease save the well-chilled butter; a heaping dish apiece of berries smothered in sugar and cream; crisp salted wafers; one slice each of seed-cake; a pitcher of lemonade and a small pot of hot tea. You notice one thing—I say "a dish apiece" and "one slice each." The very fact that one is at home might tempt a conscientious housewife to put the fruit on in a dish and the cake whole, to be served, making extra dishes and extra work at the table. This is a "picnic," though the pantry is within reach. A large tray received the whole, and it was carried out and crowded hospitably together on the small table. No plates, no saucers and no extra spoons were allowed. We sat just one hour at that first feast, and only ten flies found us out during the meal; but all outdoors being bigger than our dining-room, what cared we?

A friend of ours who has a bit of grass in a back yard makes regular provision for meals outdoors once or twice a week all through the summer. "It rests us so much," she said, and then laughed as she added, "but there is not much economy in it, for we eat twice as much as we do at other times"—and she might have added, "are twice as well." At the "opening of the season" she buys one hundred wooden plates—they cost a mere nothing—and one thousand Japanese napkins. She also lays in a supply of olives and good table-sauces as accompaniments to the cold meats served at these home festivals. One of her sons has manufactured a rough but roomy table out of some "horses" and planks, and half a dozen discarded chairs have been patched up and are kept stored in the adjacent woodshed. Then if a sudden shower overtakes the feasters, the furniture is not spoiled. Instead of tipping trays, baskets are used to carry the things from the kitchen to the airy dining-room. On these occasions all extras are discarded. The beverage is either milk or lemonade, with a "pot o' tea" for the ever-present weak stomach, a heaped-up dish of cold meat, another of bread already buttered, another of plain cake or cookies, and "a dish apiece" of fruit. "It's all before you, help yourself," is the prevailing motto. When the meal is over, each one fills a basket with dishes and remnants, and the two small boys gather up the plates and napkins for lighting the fire in the morning, and put away the chairs. The tablecloth is a newspaper carefully spread or a table oilcloth. On moonlight nights the meal is served a little later than usual, and story-telling is the dessert.

Why not introduce a bit of poetry into the daily practicalities? Why not fellowship with Nature more? Why not claim a larger portion of the gifts from heaven—fresh air and sunshine?

A. M. S.

SYSTEM IN THE HOUSEHOLD

If household affairs were more often conducted on business principles there would be much less complaint of drudgery. Many a family is made wretched by the haphazard manner in which the housework is done. To make a home the proverbial "heaven" for its inmates it is necessary to remember that "order is heaven's first law."

System is the first condition of success wherever labor is to be regularly performed. A housekeeper's resources are sometimes sorely tried to meet emergencies, but these occasions need not entirely overthrow the customary order of things. A great aid in systematizing housework is a division of labor. An illustration of this may be drawn from a family in southeastern Massachusetts. The regular work is divided into three departments, called respectively the kitchen and dining-room work, the chamber-work, the laundry-work and mending. The mother and two daughters take turns in each department in the order named. They find the best time to exchange work to be immediately after eating breakfast Monday morning. Each takes her own time in doing her portion, but is held responsible for her amount of work. This is not usually the same amount in all departments, but it does the workers no harm to have an easy week once in a while. The minor details of this arrangement would vary in different households, but they could be readily adjusted to fit existing conditions. Where there are more than three workers in a family the work may be still more divided, as in the case of a Rhode Island family. There were four in all to do the work—a mother and three young ladies. One did the kitchen-work, one the dining-room and chamber work, one the laundry-work and mending and one the new sewing. It was astonishing to see the amount of study, reading, fancy-work, etc., which they would accomplish in a year.

The secret of these successes lay in the fact that each could do her part independently of the others. This method gave them a variety of employment, and taught them to plan their work so as to give them as much time as possible for their own improvement and recreation. Its best recommendation is that those who try the scheme never wish to return to the old order of things.

HENRIETTA M. BRAYTON.

Around the Fireside

AT TWILIGHT

BY ILLYRIA TURNER

The old bars are by daisies hid,
And tangled sweets of summer-time;
The chirping of the katydid
Is mingled with the vesper's chime.

Long, purple shadows softly fall
Across the meadows and down the lane,
And from the vine-clasped old stone wall
I see the cattle come again.

Brindle and Buttercup, Sue and Bess,
With tinkle of bell and gentle "moo,"
Pulling the long, wet blades of grass,
Cropping the daisies out of the dew.

Homeward, adown the fragrant lane,
I follow slowly their lagging tread,
Until in the door-yard we pause again,
Under the bars of the sunset red.

Afar the meadows are stretching wide,
And billows of grain toss tassels like foam;
I love the peace of the country-side,
And the twilight hour when the cows come home.

THE BOYHOOD OF GREAT MEN

All great men were boys once, and the world likes to believe that they were dull boys. Marconi, although a young man, is old enough for a legend of his youth to make its appearance. Some one has found that he went to school in Florence; indeed, the teacher who guided his infant footsteps in learning has been discovered. Signora Luisa Cavallero is a fine old lady of seventy-four years, who says the chief recollection of her younger days is teaching Marconi. "Who would have thought," she says, "that the Inglesino (little Englishman), as we used to call him because of his slight figure and sedate manner, would have turned out a genius? He was always a model of good behavior, that I will say for him; but as to brain—well, the least said the soonest mended. I am afraid he got many severe punishments, poor little man; but he took them like an angel. Since he has become so great," she added, ingenuously, "my conscience has reproached me a thousand times. Fancy punishing a genius!" holding up horrified hands. "At that time," she added, deprecatingly, "he could never manage to learn anything by heart; it was impossible. I used to think that I had never seen a child with so defective a memory. He will not remember me, but I think of him constantly, and I hope that some time I may be able to see him again."—New York Tribune.

A SHELF OF CHINA

The illustration suggests an artistic and completely satisfactory arrangement for turning a miscellaneous collection of china to eminently decorative account. Supposing the plates, jugs and bric-à-brac here shown to be of varied and strong coloring—or indeed, if they were of a blue color or any other uniform tone—a plain background is necessary to give them their fullest value. Accordingly they are ranged upon a narrow shelf, placed at the height of an ordinary picture-rail below a frieze distempered a pale daffodil-yellow. This shelf, it should be noticed, does not run straight around the walls, but is fashioned with bracket-like projections, on which jugs, vases and such like may stand. The wall below is spaced out with "slats," such as panels filled with Fabrikona or some other coarse canvas, which in this instance I imagine to be of a soft gray-green. The slats and moldings may be painted to match the green, may be white or in dull, unvarnished oak. If water-colors, tinted engravings, silhouettes or small pictures of any kind have to be taken into account, the canvas left perfectly plain forms a charming background; if china alone forms the ornamentation, a simple stenciled design in tones of brown and olive-green, with perhaps a touch of warm Indian-red, might be introduced in each panel with excellent effect. In any case, the china if well grouped, even though not of the rarest (though the more uncommon the better), will have fulfilled an entirely satisfactory purpose, considerably more pleasing and artistic than that to which "odds and ends" are relegated—the inconsequent adornment of the spare room, that universal "snapper up of unconsidered trifles."—The Queen (London).

"KITCH" IN YOUR DINING-ROOM

Mrs. A. D. T. Whitney, that charming and ever-helpful New England writer of stories for girls, throws out a marvelously good suggestion to housewives in one of her books. It is a "home story," and the home it introduces one to is most charming. The mother, Mrs. Holabird, achieved a great victory over custom and antecedent when she and her girls forsook the kitchen, where they had endured the horrors of in-

efficient help, and turned their dining-room into a kitchen, becoming their own "help."

One of the society leaders of the small town calls on this family one morning while the mother is making an apple pudding, and is shown straight into the dining-room-kitchen. We cannot forbear quoting: "Mother sat with

the deal bowl in her lap, turning and mincing with the few last strokes the light, delicate dust of the pastry. The sunshine—work and sunshine always go so blessedly together—poured in, and filled the room with life and glory.

"Why, this is the pleasantest room in all your house!" said Miss Elizabeth.

"That is just what Ruth said it would be when we turned it into a kitchen," said Barbara.

"You don't mean that this is really your kitchen!" "I don't think we are quite sure what it is," replied Barbara, laughing. "We either dine in our kitchen or kitch in our dining-room, and I don't believe we have found out yet which it is!"

"You are wonderful people!" "But there are people just as wonderful outside of dear Mrs. Whitney's books. They could keep their dining-room floor as immaculate, and their range as shining, and diminish their weary steps by many thousand, and add a million pleasantnesses which belong to them by right to their crowded, busy lives.

We are not writing now for modern cityites, with their tiny model kitchens connected with the dining-rooms by sliding windows, double china-closets and marvelous dumb-waiters, but rather to those who live in old-fashioned houses full of comfort and dear associations, but also full of discomfort and weariness, which a little unconventional daring could overcome.

Now, while the thought is fresh in your mind, go take a look at your dining-room. If there is no water in it, perhaps you could have connections made, and a good-looking porcelain sink that would not be offensive to the eye put in that light corner between the two windows. Or if you have to carry all the water anyway, have a piece of furniture constructed something like this: Have your carpenter measure that bit of space where the old lounge now stands, and construct an oak cupboard, sink, flour-bin and molding-table all in one that will fit into the space. This is nothing more nor less than a piece of furniture table-height, one half of which has a flour-bin underneath and a flat table-top, the other half a sink-like arrangement on top, not more than six inches deep and lined with zinc. The space underneath is divided into two compartments—one just wide enough to hold a good-sized pail, the other with shelves for pans and cooking-utensils. A bit of straight water-pipe connects the sink with this pail. Here you can wash your dishes, and when necessary let the water run into the pail underneath, though this arrangement is more for disposing of odds and ends of clean water through the day or the "dreenings" from freshly cooked vegetables.

Move out of that low-ceiled kitchen, with its rough floor and awkward arrangements. Use it for a sort of outhouse or store-room and for bits of work that are manifestly "dirty." But for the regular preparation of your meals—which should always be a dainty process—"kitch in your dining-room," and lengthen your life. Be courageous enough not to mind "what they say." Never mind if you do have to prepare a meal now and then in the presence of your company. Be a pioneer to fields of victory! ADA MELVILLE SHAW.

THINGS TO REMEMBER

Wash hair-brushes with soda-water.

Extra care should be taken of bread and cake boxes during the period of hot weather.

Good flour is a creamy color, and holds together upon pressure.

To remove grass-stains, wet the spot with cream of tartar, and rub well.

Wash small fruits by putting a few at a time in a wire sieve or colander.

Eating fruit or anything else merely to save it is not digestive economy.

Use strong baking-soda water for scalds or burns where the skin is not broken.

If in ironing you scorch an article, soap-suds and the hot sun will remove it.

Grown-up children often leave very untidy plates at table. Is it custom or lack of training?

Brush the stovepipe over with equal parts of kerosene and linseed-oil when put away for the summer.

Have a plain table, and often picnic under a tree or on the veranda, unless you have a "big-course" meal.

If children leave food on their plates, do not compel or hire them to eat, but serve them with less and avoid waste.

Nothing is more indigestible than slack-baked bread, and yet many people have the taste to prefer it in that raw state.

Bake your bread in small loaves and very thoroughly, else the uncooked germs in the center will speedily destroy the loaf.

Save work in the house by wiping the feet on the door-mat. Nothing is better in a country home than the old-fashioned corn-husk mat.

It is a misfortune for any child to be untaught in table-requirements. Unless they are observant, their lack of teaching will follow them through their entire after-life.—Health Culture.



AN ARTISTIC ARRANGEMENT OF CHINA

TRUE LIVING

THEY stood silently gazing at each other as if enjoying the unexpectedness of it—she a beautiful city girl and he a barefoot mountain lad who had never been five miles beyond the precinct of his home. She had wandered from the hotel to a sort of natural clearing a short distance beyond. It had seemed that she must be miles from civilization of any sort, when suddenly this small boy confronted her. The little fellow was vaguely fascinated at first; he stood gazing at her as something hitherto unknown in his meager life, then quickly turned, and the next instant was lost in the thicket about him.

She had thought when she came to the Adirondacks for her summer outing that there would not be any work here for her to do. When she had said good-by to the little class at home in the mission-school she had not thought of going out to find others more neglected and destitute than they.

Slowly she retraced her steps, the shadow of a great burden resting on her. "How shall they learn unless they are taught?" she mused. "Oh, I must make further inquiry. I can still see the appealing, hungry eyes of that little boy gazing at me."

She found out the boy's history without the least trouble. The manager of the hotel had long known "him and his kind," as he called them. "You see, Miss Atkins," he said, "the boy was born there, and will probably live and die there. Such life seems to suit his kind. But more's the pity, there's several children—five all told, I think."

"And does no one ever teach them what right living means?"

"No one ever interferes with them in the least. They live their own lives, and we live ours; and inasmuch as they do not molest us, we do not trouble ourselves about them. The children look barely civilized, and yet they say they are not of the bad sort."

The lad's appealing eyes seemed still looking at Miss Atkins as she turned away. "True living," she thought, "is not merely passing through the world with enough of all that is necessary to sustain life. It means growth into the image of Christ, rounding out one's character, into disciplined manhood and womanhood." With her, once to resolve was to do; and later, when the ladies on the hotel veranda questioned her about her actions, and besought her not to excuse herself at that hour of the day, she replied that she had a very important work to do which required her immediate attention.

"She is certainly a peculiar girl," remarked one lady to another. "I have seldom met any one so pretty, and yet she seems entirely unconscious of it. What do you suppose she intends doing now?"

"I believe she is about the Master's business. Did you notice that intent expression in her eyes—a singleness of purpose—as she started out? I think if we wait a little while we will learn it all."

She had been told a direct path to the mountain home, and started out without the least question of fear in her heart. "The Master's work will not brook delay," she said, softly. She had not gone more than half the distance before she came across the five of them, and so intent had they been engaged in sport that they did not see her until she stood among them, arrayed, the eldest of them declared, afterward, "like a very angel itself."

At first they were about to flee from her, but she had provided against this emergency by bringing with her a number of pretty pictures. These she displayed at once, and evidently something about her manner reassured them, as upon second thought they all settled down again.

Then she won their hearts by telling them in simple words the story of the Cross. They listened at first with evident indifference; but later their eyes brightened, and they pressed closer, not wishing to lose a single word. She must have remained an hour or more, and to their urgent request that she stay longer she promised to come every day to the spot when the weather permitted. "And when I do not come, you must come to me."

"Really, it is surprising," said the business manager of the hotel, at the close of the season. "but the brightest and best lad I have had in my employ for several years is that mountain lad of 'old Elkins,' as we always called him. Certainly Miss Atkins has exerted wonderful influence here for good."

The happy Christian girl returned to her home filled with the quietness and confidence which no external circumstances can affect.—Sara V. Du Bois, in Christian Herald.

Sunday Reading

DIDN'T THINK

Used to let his poor old mother go an' carry in the wood,
She was just a packhorse for him, but he never understood;
Never thought o' bringin' water from the spring down by the lane,
Or o' helpin' her to gather in the clothes before the rain;
Let her keep a-waitin' on him, though her back was achin' so—
'Twasn't 'cause he didn't love her—he just didn't think, you know.

After while the poor old mother put her burdens all away,
An' we waise an' heard the preacher praise her poor old soul one day;
An' I stood an' looked down at her when they pushed the lid aside—
Poor old hands! I didn't wonder that her boy sat there and cried
Just as if he couldn't bear it—just as if his heart 'ud break—
He had kind o' got to seein' what she'd suffered for his sake.

There's a lot o' kinds o' sinnin' that the Good Book tells about—
Sins concernin' which a body needn't ever be in doubt;
But there's one sin that I reckon many a man who doesn't think
Will be held to strict account for when he goes across the brink—
For the wrong that's done a person by another's want o' thought
Hurts as much as though the injured was the victim of a plot.

—Ensign.

"HE'S GOT HIS CROWN"

The annual conference was called to order.

After devotions the bishop said, "The secretary of the last session will please call the roll."

That official came forward, and began the roll-call. He had named only a dozen of the senior members, when in a lower tone he called the name of a man who made no answer. But the eyes of a white-haired veteran on the front seat grew moist as he said, "Never mind about him; he's got his crown."

A murmur of assent swept over the conference, which instantly flowed into triumphant song as some one started the stanza:

"E'en now by faith we join our hands
With those that went before,
And greet the blood-besprinkled bands
On the eternal shore."

"He's got his crown." That was well said. For more than forty years the old man had worked like a hero for the Master he loved. He traveled many of the largest and poorest circuits of the conference. He never chose his harvest-field, but when the conference-time came around he appeared with his arms full of golden sheaves.

Last conference he was superannuated. It cost him more than a passing pang, but he stepped down so gracefully no one noticed his wrinkled face grow pale, or saw that his eyes showed traces of last night's tears. He went from the conference sweet, tender, trustful, and settled in a little cottage in the midst of his late parishioners.

What a year of benedictions it had been to all the people in the village! He was the friend of everybody, and everybody was his friend. How the children liked to be where he was! How his youthful pastor leaned upon him for sympathy and advice! How loyal he was to that pastor and to the church! How grateful he was that the church had put up with his infirmities and used him so well!

Brother ——— did not live mostly in the past. You never heard him talking mournfully of the departed glory of the church, nor of what a terrible thing it is to forget the "landmarks." He was sure the world was growing better all the time, and he was glad he had been allowed to live so long. Sunshine was in his heart and on his face. He just ripened for paradise. One day when the gates of pearl flew open, and he stood upon the streets of gold, it was not such a great change, for he had been living in heaven a good many years, and his conversation was with the King.

"Never mind about him." No, never mind. The conference has important matters upon its hands. It must deal with the living, pressing, awful present. It must plan once more for a forward march. It must arrange for new and

larger conquests. Time is passing. Opportunities are slipping by. Do not pause, Mr. Secretary. Go swiftly on. "Never mind about him."

"He's got his crown." And that crown is all radiant with a thousand stars. Talk about your coronations! Some day King Edward's crown will rest no more upon his brow, for dead kings do not wear crowns. Some day it will crumble into dust. But the other crown, of real royalty, won by the faith and self-surrender and sacrifice and toil of God's dutiful servants, it shall abide forever.—Epworth Herald.

MISSIONARY FACTS

Forty million heathen die every year. They are dying at the rate of one hundred thousand a day.

Each missionary is responsible for one hundred thousand souls.

In the United States there is one minister to every seven hundred people.

Every tick of the watch sounds the death-knell of a heathen soul.

At every breath we draw four souls perish never having heard of Christ.

Out of every one hundred thousand church-members in America only twenty-one go to the foreign fields.

Christians are giving at the rate of one tenth of a cent a day.

Of every dollar given for Christian work, we spend ninety-eight cents on home work and two for the heathen.

Christ said, "Go ye into all the world." "Go" does not mean stay; "all" does not mean a part.

There are three hundred million souls in India, and only seventeen hundred missionaries.

India has twenty-three million widows. Fourteen thousand are baby widows under five years old.

Allowing one letter of the Bible to represent one person in India, it would take seventeen Bibles to represent them all.

Every year twelve million perish in China from the effects of opium.—Wesleyan Methodist.

"GIB ME PO'TAH-HOUSE STEAK"

Two colored barbers, one an old man and the other a younger one, had the shop. The younger one had taken off his apron, and was starting toward the door.

"You's gwine ter git a drink?" asked the elder.

"Dat's what Ise gwine ter do," answered the younger man.

"Go an' git yo' drink," said the other. "I used ter do de same t'ing when I wuz young. When I wuz fus' ma'ied dah wuz a gin-mill nex' ter de shop whah I worked, an' in it I spent fifty an' sebenty cents a day outen de dollah an' a half I earned. Well, one mo'nin' I went inter de butchah-shop, an' who should come in but de man whah kep' de likkah-shop.

"Gib me ten er twelve pounds ob po'tah-house steak," he said. He got it, an' went out.

"I sneaked up ter de butchah, an' looked ter see whah money I had left.

"What do you want?" said de butchah.

"Gib me ten cents' wuf ob libber,' wuz my remark.


"It wuz all I could pay fo'. Now, you go an' git yo' drink. You'll eat libber, but de man whah sells you de stuff will hab his po'tah-house steak. De man behind de bah eats po'tah-house, de man in front eats libber. I ain't touched de stuff fo' thirty yehs, an' I'm eatin' po'tah-house mahself."—Foxboro Reporter.

DO EVERYTHING WELL

Do not look so closely to see whether you are doing much or little, ill or well, so long as what you do is not sinful, and that you are heartily seeking to do everything for God. Try as far as you can to do everything well, but when it is done do not think about it, try rather to think of what is to be done next. Go on simply in the Lord's way, and do not torment yourself. We ought to hate our faults, but with a quiet, calm hatred, not pettishly and anxiously. We must learn to look patiently at them, and win through them the grace of self-abnegation and humility. Be constant and courageous, and rejoice that He has given you the will to be wholly His.—St. Francis de Sales.

GOD'S HOUSE

God's house is a sacred place. It should be entered reverently. It is the house of prayer. Talking and visiting is most inappropriate. When one enters, let him bow a moment in silent prayer. If he must speak, let him speak softly and solemnly, in a way that becomes God's house. Let him put away frivolous and worldly thoughts, and give himself for a brief hour to communion with the Holy God whose house this is.—Dr. C. M. Coburn.



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LULLABY

In the sheltering warmth of thy mother's arms,
Sleep, O little one, sleep!
Crooning to thee a tender song,
With slumbry music leading along,
Into the dream-world deep.

In the low white rocker she pensive sits,
Humming thy lullaby;
And her fancies into the future flow
As she sees her baby to manhood grow,
Noble and pure and high!

Do her fancies people thy dreams, my sweet?
For a flickering smile I see
Flit o'er the calm of thy sleeping face,
Sending a sweet, mysterious grace,
As of near divinity.

Sleep, little babe, in thy mother's arms,
Sing on, maternity!
God grant the love in thy sweet eyes
May ne'er be dimmed, and the hopes that rise
In thy child reach certainty!

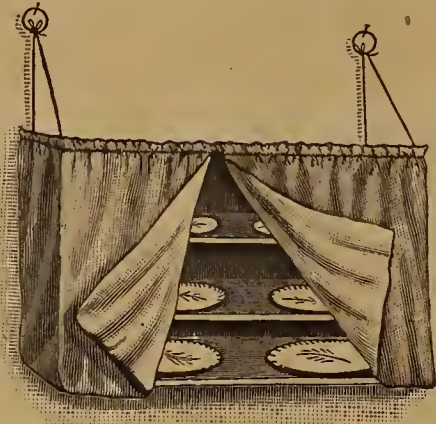
—Christabel, in Town and Country.

A PIE-RACK

ANY housewife with a limited amount of shelf-room knows what a bother it is to stow away a large baking of pies. A rack that will hold half a dozen pies can easily be made in a few minutes by the man of the house, or if need be, by his wife.

The materials required for it are four thin boards, each twenty-two inches long and twelve inches wide; twelve empty spools, all of the same size—those from No. 10 cotton thread are a good size; a piece of heavy cord, such as is used in tying express-packages, and two heavy rings—old harness-rings will do. In each corner of the boards make a small hole about the size of that in the spool. If you cannot use a brace and bit, or haven't one of the desired size, heat the end of an old file, and burn the holes through the boards. Now begin at the upper side of one board, run the cord down through the hole in one corner, then through a spool, then through the second board, and so on until you have the four boards run together, with a spool between each two. Put the string up through the hole at the other corner of the same end of the bottom board, and proceed in like manner until you have the cord out again at the top. Do the other end in the same way. Now draw the ends of the cord in such a way that it will allow the shelves to hang against the wall, and fasten them firmly into the two rings. Trim off neatly, put a curtain all around, tacking to the top shelf, and you have a place for half a dozen pies in the biggest pans you've got. In an emergency, cakes or pies may be set on the top. Be sure to have the nails over which the rings are slipped for hanging the rack strong and well driven, or better still, use two strong hooks screwed into the wall. By putting two spools, one on top of the other, in one partition, a space may be made deep enough to take a cake.

MAY MYRTLE FRENCH.



PIE-RACK

There is a sacredness about it that is like religion. One must be married in heart, thought and in the sweetest ideal of one's spiritual life, and then the two together can make a home that is a heaven on earth. If I cannot be married like that I should rather live an old maid a thousand years." And Penelope put her wedding-handkerchief away.

FRANCES BENNETT CALLAWAY.

THE FARMER'S WIFE

So much has been said concerning the prosperity of farmers that apparently all has been told, but the farmer's wife is a subject rarely touched upon, and one that is most worthy of mention. She is usually a good-natured, hard-working woman who has spent the best days of her life in a small house with no conveniences, surrounded by half a dozen healthy children who were a constant demand upon her energies and patience. Indoors and out alike, she has ever been at the head, engineering and overseeing less competent heads and hands. So, ever faithful, seldom fretful, rising early and retiring late, she has passed the meridian of life. When she begins to descend the western slope, may her journey become less arduous, and may she taste some of the good things of this life which after years of ceaseless toil have at last fallen to the lot of her prosperous, farmer husband. May those boys and girls, now grown to manhood and womanhood, not forget whose hands toiled and persevered that they might become educated and honored citizens of this great country. May they not forget that "mother" herself was once young, and had the same dreams, the same long, long thoughts of youth that now are theirs. May they remember, too, that her dreams never materialized, and that the dreamer's life became a stern reality of painfully practical facts, which have hardened the once soft hands and given a tired, care-worn look to the once pretty face. And may these children not forget that through it all "mother" has preserved the sweetness and cheerfulness which won the sturdy young farmer's heart, and which now make her doubly dear to those who know and love her.

This good wife and mother has earned a long vacation from hard work and worry, and may she not be deprived of the fruits of her labor. Do not, O prosperous farmer, celebrate your prosperity alone by buying fine stock, building great barns and cow-sheds. Let a goodly portion of that wealth fall into the lap of the companion who has stood so faithfully and loyally by your side through dry season and wet, through grasshopper-year and chinch-bug pest.

LOTTIE L. SHELTON.

MAKING CURRANT JELLY

When I was a girl at home, one rule of the house-keeping was that the currant jelly must be made by the Fourth of July. If by any untoward circumstances the jelly-making was delayed past that date, it was a matter of regret, and everything was bent toward making it within the fewest possible days after the glorious Fourth. While we at home were always too busy to know much about the neighbors' housekeeping, I remember that sly remarks used to be dropped about any one who was delinquent about her currant jelly.

When I set up my own housekeeping I took with

The Housewife

"You can't find that fault with Elbert. He has a home, and property, and certainly he is stationary."

"Yes, Elbert is as stationary as one of his own haystacks. I doubt if he ever has an idea that travels off his farm. Elbert would give his wife a good home and dress her well, and he would take pride in doing it. But he would begrudge every dollar he spent on her, and if she wanted a penny for a postage-stamp she would have to go down on her knees. No; this fine handkerchief shall never stand up with a man like that."

"Tom is just home from college with enough new ideas for the whole village, and a dress-suit, besides. He is as generous-hearted a fellow as ever lived, and he would adore the little handkerchief, and you, too. I have seen it in his eyes."

"So have I," returned Penelope, blushing as she folded the handkerchief very evenly and very carefully. "But Tom adores other things, too. He is fond of a good cigar, a glass of wine, a pack of cards. He boasts openly that he is not a moral man. He would not think of marrying a girl who would hang around saloons and keep the company he does. Why should I marry him? I have no wish to die the broken-hearted wife of a dissipated husband. I prefer a natural death."

"The truth is, girls, that men have much higher ideals of what a wife ought to be than we have of a husband. Too many of us are like the girl under the apple-tree, calling out, 'Anybody, O Lord! Anybody!'"

"If every one of us should earnestly resolve never to marry a man who would drink, smoke, gamble or lead an impure life, there would be such a turning-over of new leaves in this county as never was heard of before in all its history."

"You may think me prudish, but really marriage means so much more to me than simply going through with a ceremony."

There is a sacredness about it that is like religion. One must be married in heart, thought and in the sweetest ideal of one's spiritual life, and then the two together can make a home that is a heaven on earth. If I cannot be married like that I should rather live an old maid a thousand years." And Penelope put her wedding-handkerchief away.

FRANCES BENNETT CALLAWAY.

THE FARMER'S WIFE

So much has been said concerning the prosperity of farmers that apparently all has been told, but the farmer's wife is a subject rarely touched upon, and one that is most worthy of mention. She is usually a good-natured, hard-working woman who has spent the best days of her life in a small house with no conveniences, surrounded by half a dozen healthy children who were a constant demand upon her energies and patience. Indoors and out alike, she has ever been at the head, engineering and overseeing less competent heads and hands. So, ever faithful, seldom fretful, rising early and retiring late, she has passed the meridian of life. When she begins to descend the western slope, may her journey become less arduous, and may she taste some of the good things of this life which after years of ceaseless toil have at last fallen to the lot of her prosperous, farmer husband. May those boys and girls, now grown to manhood and womanhood, not forget whose hands toiled and persevered that they might become educated and honored citizens of this great country. May they not forget that "mother" herself was once young, and had the same dreams, the same long, long thoughts of youth that now are theirs. May they remember, too, that her dreams never materialized, and that the dreamer's life became a stern reality of painfully practical facts, which have hardened the once soft hands and given a tired, care-worn look to the once pretty face. And may these children not forget that through it all "mother" has preserved the sweetness and cheerfulness which won the sturdy young farmer's heart, and which now make her doubly dear to those who know and love her.

This good wife and mother has earned a long vacation from hard work and worry, and may she not be deprived of the fruits of her labor. Do not, O prosperous farmer, celebrate your prosperity alone by buying fine stock, building great barns and cow-sheds. Let a goodly portion of that wealth fall into the lap of the companion who has stood so faithfully and loyally by your side through dry season and wet, through grasshopper-year and chinch-bug pest.

LOTTIE L. SHELTON.

MAKING CURRANT JELLY

When I was a girl at home, one rule of the house-keeping was that the currant jelly must be made by the Fourth of July. If by any untoward circumstances the jelly-making was delayed past that date, it was a matter of regret, and everything was bent toward making it within the fewest possible days after the glorious Fourth. While we at home were always too busy to know much about the neighbors' housekeeping, I remember that sly remarks used to be dropped about any one who was delinquent about her currant jelly.

When I set up my own housekeeping I took with

me many of the good rules of my mother which had been grandmother's rules. As the years have passed, many things have come into my life that did not come to my mother, and the particular times for doing things have had to give way to things that were more urgent. Last year I made my supply of currant jelly on the sixth of August. We used to

think the currants would be gone, or after a certain time they would not jell. I have never on the second or third of July had handsomer or more perfect jelly than that made in August last year, and it was made of the fruit-juice and sugar, just as we used to make it, with no gelatine nor any new process.

The currants I used did not grow in my garden, for I have no garden. I simply went into the market, and bought a large basket of currants for fifteen cents, so they were really cheaper than earlier in the season.

I do not tell this experience to make laggard house-keepers. When one raises the currants, they must be used when ripe: but if you are to buy your currants, you need not worry over a delay, nor unduly exert yourself to make the jelly at one certain time. Fruit is brought from so many directions and so many varieties of climate in the United States that the fruits can hardly be said to have seasons except locally.

While home jellies and fruit put up in the home kitchen are just as delicious each year, if it seems impossible to prepare the fruit without too great an outlay of strength or time, remember it does not require a very full purse to be able to obtain fresh fruits of one kind or another if one lives within reach of markets.

MARY JOSLYN SMITH.

THE DELICIOUS RASPBERRY

RASPBERRY TAPIOCA.—Soak one small cupful of tapioca over night in water enough to cover. In the morning add one quart of water, and cook in a double boiler until transparent. When done add one cupful of white sugar and two cupfuls of fine ripe raspberries. Stir them in lightly, so as not to break them, and set the kettle in a panful of ice-cold water to cool quickly. Serve very cold with whipped cream.

RASPBERRY TRIFLE.—Arrange stale macarons or slices of sponge-cake in a deep glass dish with alternate layers of sweetened raspberries. Pour over these a custard made with the yolks of three eggs, four tablespoonfuls of sugar and one pint of rich milk flavored with one half teaspoonful of lemon-extract. Make a meringue with the whites of the eggs and six tablespoonfuls of powdered sugar. Heap this on top of the trifle before serving. Serve very cold.

RASPBERRY SANDWICHES.—Mix one half cupful of mashed red raspberries with one half cupful of grated pineapple and one fourth of a cupful of crushed English walnuts. Beat the whites of three eggs with six tablespoonfuls of powdered sugar, and beat into the fruit. Cut sponge-cake into finger-pieces, and put two of them together with the fruit mixture between. These are delicious for afternoon tea.

RASPBERRY WELLS.—Make round individual sponge-cakes by any good recipe, and when cold carefully scoop out the center of each, leaving a wall about three fourths of an inch thick. Cover the wells inside and outside with chocolate icing, and fill them with ripe red raspberries slightly crushed, sweetened and mixed with whipped cream. Heap whipped cream over the top of each.

CREAM-RASPBERRY TART.—Line a deep earthen pie-dish with good pastry, and fill the dish with raspberries. Sprinkle thickly with sugar. Roll out an upper crust a little thicker than the under crust and larger than the top of the pie. Spread this carefully over the top, and do not press down the edges. Bake in a moderate oven. Make a custard as follows: Put one cupful of milk in a double boiler, and when it is scalding-hot add one tablespoonful of sugar, and one level teaspoonful of corn-starch which has been mixed with a little cold milk; stir, and cook for five minutes; add to the mixture the whipped whites of two eggs, cook a minute longer, and remove from the fire. Stand the dish in a panful of cold water, and stir until the custard is cold. When the pie is baked, carefully remove the top crust, and pour the custard over the fruit. Then replace the top, and serve the pie when perfectly cold.

RASPBERRY MERINGUE.—Whisk the whites of four eggs to a stiff froth, add one cupful of powdered sugar and one cupful of crushed red raspberries. Serve in glass cups with whipped cream or custard.

RASPBERRY CHARLOTTE.—Soak one third of a box of gelatine in one third of a cupful of water for fifteen minutes. Add one cupful of sugar and two cupfuls of boiling raspberry-juice. Stir until the gelatine is all dissolved, and set away until it begins to harden. Then whip it until light, and gradually beat in the stiffly whipped whites of three eggs and the juice of one lemon. Whip until stiff, and pour into a mold lined with macarons.

MARY FOSTER SNIDER.

PINEAPPLE-AND-RASPBERRY ICE-CREAM

Cut off the top of a large pineapple, then with a strong spoon scoop out the pulp, separating it from the hard core, which should be rejected. Sugar the fruit, let it stand some time, then pour off one cupful of juice. Trim the pineapple-shell at the bottom, so it will stand firm, and chill in the refrigerator. Mash well one pint of red raspberries, add one fourth of a cupful of water, one half cupful of sugar, and the pineapple-juice, and cook the mixture several minutes. Take from the stove, add the juice of one lemon, more sugar if needed, and strain through cheese-cloth. Beat one quart of cream and one cupful of sugar until light and frothy, flavor with vanilla, and freeze as ice-cream; when half frozen add the fruit-juice, and finish freezing. Fill into the pineapple-shell, set it in a deep mold or the freezer-can, and let it stand packed in ice and salt for an hour or longer. Serve on a plate covered with a doily.—Amelia Sulzbacher, in Good Housekeeping.



ICE-CREAM IN A PINEAPPLE-SHELL

A FASHIONABLE TOILETTE

PALE gray crêpe de chine is used for the dainty gown illustrated, trimmed with lace that is dyed to perfectly match the fabric. The waist is made over a glove-fitted feather-boned lining of taffeta.

The back is plain across the shoulder, and drawn down close to the belt, where there are tiny plaits in the center. The neck is cut slightly low in front. The full fronts are gathered on the shoulders, and blouse stylishly over a crush belt of crêpe de chine.

The boleros are shirred on the shoulders, included in the arm's-eye and under-arm seams, and fastened at the lower edge of the V in front. They are edged with frills of lace, headed by beading, through which narrow velvet ribbon is passed. This is tied in a small bow at the neck.

Short, fitted caps in the sleeves are of lace. The full puffs are shirred at the top and attached to the caps. They fall loosely and droop well over narrow lace wristbands.

A narrow front panel in the skirt is elaborately trimmed with braids and motifs. The skirt is made in two sections—the upper reaching from a fitted yoke to the knee, and the other forming a lower portion.

Three rows of shirring are arranged at the top of the upper part to draw it in closely over the hips. There are also rows of shirring on the flounce, which adjust the fullness at the knees and keep the skirt quite tight at that point. The flounce graduates in depth toward the back, and is very wide at the hem, falling in long, graceful folds. The closing is made invisibly at the back. Some women with slender figures prefer the shirred yoke. This pattern may be made with either shirred or plain yokes.



A FASHIONABLE TOILETTE

LADIES' NINE-GORED SKIRT

Train skirts still reign supreme in the fashion world; in fact, no modiste would think of making a dressy gown without a train. There are, however, many women who will not wear long skirts in the street, and seriously object to rainy-day lengths. For this reason ladies' tailors are making a number of costumes with skirts that are round, just escaping the ground.

Such a skirt is shown in the illustration, developed in white brilliantine, unlined, and trimmed with heavy lace motifs. It is shaped with nine evenly proportioned gores, fitted smoothly around the waist and hips. It closes invisibly at the back in habit effect.

The skirt is sheath-fitting from belt to knee. Extensions added at the lower edge of each gore are arranged in hollow box-plaits that are flatly pressed, but flare stylishly when the



A JAUNTY OUTING-HAT

wearer walks. Lace motifs are applied at the lower part of each gore between these box-plaits.

Skirts in this style are made of cheviot, serge, Venetian, flannel or any of the heavy wash-fabrics, and trimmed with braid, stitched bands or lace. Frequently the plaits are faced with contrasting color.

GIRLS' DRESS

Light green veiling is used for the dainty dress illustrated, with white lace for trimming. The two-piece body-lining fastens at the back, and is faced with lace to a pointed yoke-depth.

Three tucks on each side of the center front and back are stitched from yoke to belt. The under-arm seams of the waist and lining are joined separately, and the former blouses well all around.

A fancy bertha outlines the yoke. It is decorated with large lace motifs in the corners, and finished with narrow velvet ribbon that ties in a rosette at the front. A plain lace collar completes the neck.

One-piece bishop-sleeves fit the arm closely from shoulder to elbow, and are very wide at the lower edge, where the fullness is arranged on narrow wristbands. These are finished with flaring cuffs of lace.

Deep forward-turning plaits in the skirt start at each side of a narrow front panel, and continue around the waist to the back. A box-plait is applied in the back, and the skirt closes invisibly under the plait. Motifs and bands of lace trim the skirt.

Attractive dresses in this mode are made of albatross, bunting, challie, cashmere or any light-weight woolen fabric, with lace, ribbon or fancy braid for trimming. It is also an appropriate style for linen, piqué, fine gingham and lawn, with embroidery and inserted tucking for the yoke.

LADIES' TUCKED WAIST WITH YOKE

Fine white damask is used for the attractive blouse illustrated, with Mexican drawn-work and bands of blue peau-de-soie for trimming. This idea of trimming wash-fabrics is comparatively new and rather an expensive fad, for with such decoration it is impossible to have the waists laundered. They must be dry-cleaned.

The blouse has for its foundation a glove-fitted featherboned lining that closes in the center back, and is faced with squares of drawn-work to form a yoke back and front.



GIRLS' DRESS

How to Dress

The full fronts are tucked, and applied to outline the yoke. The tucks are stitched down part way, the fullness forming a smart blouse over the belt.

The backs are tucked to correspond with the fronts, but are stitched down from yoke to belt, tapering stylishly at the waist. The closing is made invisibly beneath the tucks. The collar, which is of plain linen, is trimmed with bands of silk.

Inside seams fit the one-piece bishop-sleeves closely to the upper arm. They are very wide at the lower edge, where the fullness is gathered and arranged on cuffs of unique shaping. The bands of silk are applied to simulate caps, but may be omitted if a plainer sleeve is preferred.

Waists in this style are made of taffeta, satin, albatross, veiling in soft silk and wool fabrics, with lace, appliqué, all-over embroidery or inserted tucking for trimming.

GIRLS' COOKING-OUTFIT

Many of the public schools have cooking-classes each day which are attended by all the scholars over six years of age. Aside from these there are any number of cooking-schools, and all the pupils are supposed to be provided with at least two sets of special garments to wear while learning. One is usually at the laundry, as the work is not at all clean.

The illustration shows a regulation cooking-outfit consisting of apron, sleeves and cap. They are made of white lawn. The full skirt of the apron is gathered, and attached to the lower edge of a belt. It completely covers the dress-skirt and meets at the back. The lower edge is finished with a deep hem.

The bib is attached to the belt, and edged with straps that extend over the shoulders, fastening to the belt at the back. The apron is drawn together by means of long strings tied in a bow.

Elastic run through a casing on the edge of the cap permits it to be drawn down over the hair if necessary. In some schools they insist upon the amateur cooks' hair being fastened securely under the cap.

Inside seams fit the sleeves. They are drawn in at the elbow with tapes, also at the wrists, the sleeve forming ruffles below the casings.



GIRLS' COOKING-OUTFIT

HELPFUL HINTS

A white organdie gown with sprays of pale violet wistaria is made with a double skirt composed of two deep shirred flounces. Each flounce has a five-inch hem, in which violet ribbon is run. There is a high girdle of violet silk, and the stock collar is fagoted with violet silk.

The woman of limited income wisely makes one or two of her summer gowns with two waists—one high for afternoon wear, and the other low for evening. The same materials are often used for both occasions.

The word comes from Paris that foulard, except for shirt-waist suits, will not be worn at all next season. Tussore are the coming silks. It is true that foulards have been so much in morning gowns and simple street-suits that they are no longer associated in the mind with dress occasions.

One can hardly go wrong in making a gown to be worn after this summer with a full skirt. Gores are rapidly going out. Tailored gowns have them still, but more elaborate frocks are nearly all full in some way or other. Shirring and plaitings and smockings are used to give the fullness, all of these keeping the tight effect so much desired about the hips.—American Cultivator.

FASHION'S FANCIES

Hyacinths are popular in millinery. The lace collar of the moment is almost a cape.

The jeweled girdles grow steadily more popular.

Russian linen scrim is one of the smartest of the inexpensive goods.—Woman's Magazine.

Any of these patterns furnished from this office for ten cents each.

A FASHIONABLE SUMMER TOILETTE.—The Waist Pattern No. 9018 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure. The Skirt Pattern No. 8919 is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure.

LADIES' NINE-GORED SKIRT.—The Pattern No. 9022 is cut in sizes for a 22, 24, 26, 28, 30 and 32 inch waist measure.

GIRLS' DRESS.—The Pattern No. 9016 is cut in sizes for girls of 6, 8, 10 and 12 years of age.

LADIES' TUCKED WAIST WITH YOKE.—The Pattern No. 9014 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

GIRLS' COOKING-OUTFIT.—The Pattern No. 9001 is cut in sizes for girls of 8, 10, 12 and 14 years of age.

FASHIONS OF THE HOUR

The fashion of having a white silk petticoat with two or more adjustable flounces for wear with different gowns has much to recommend it. One such petticoat in a summer outfit has three knee-flounces, to be attached by means of a double row of beading and a broad

ribbon. One of the flounces is of white China silk, shaped at the top by groups of small tucks. The bottom is scalloped, and has an edging of six-inch Valenciennes lace. An elaborate application of lace flowers further embellishes the flounce, and there is a bow of heavy white satin ribbon with long ends on the left side. A second flounce is of pale blue organdie, to match a blue-and-white organdie gown. It is rather simply trimmed with lace edging and medallions. The



LADIES' NINE-GORED SKIRT

third flounce is a triumph of skill and patience. It is a shaped circular affair, composed of sixteen rows of lace edging sewed together, the edge of one row just overlapping the top of the other. A wide nainsook beading, headed by a frill of lace, attaches the flounce to the skirt.

The use of Valenciennes lace increases, and is threatening the popularity of the antique and Cluny, so universally worn at present. Many of the thin lingerie waists

are trimmed with Valenciennes medallions and edging, and it is seen on organdie and other muslin gowns, especially youthful models. A handsome matinée-blouse is made of stripes of white wash-ribbon three inches wide and two-inch Valenciennes-lace edging, not insertion. There is a shaped belt of the ribbon and a tunic of lace and ribbon sewn lengthwise below the belt. In the tunic two rows of lace are used between the rows of ribbon.

A rose-pink linen gown is effectively trimmed with disks of white linen closely sprinkled with French knots of black. The disks are edged with Cluny lace ruffled slightly, but sewn flat to the material. They extend around the circular skirt, and appear on the blouse. The guimpe and lower sleeves are of white linen with black knots.

A new model for dressy shirt-waists is seen at an importer's, and is developed in linen, pongee and tussore silk. It has a deep cape-yoke, circular-shaped, which extends far over the shoulders, giving them an extremely sloping effect. The yoke is attached to the full blouse by narrow nainsook or silk beading.

For wear with linen or other light-material jacket-gowns, collar and front pieces, miscalled guimpes, are shown. They come in pink, blue, mauve and yellow, in combination with white, and are very pretty and cool. They are easily made at home, and may be varied in a number of ways.

To hang on a chatelaine or watch-fob, jewelers offer a small gold sphere about as large as an English walnut. Some of these are powdered with tiny jewels, and are especially pretty. The ball unscrews ingeniously in the center, and displays a little

powder-puff with a gold handle.

Another novelty seen in a jeweler's shop is an opera-glass which folds perfectly flat, and may be slipped in a small bag, or even in a pocket if any gowns nowadays boast pockets. The lens is turned sidewise by means of a screw, and the sides of the case fold flat like a card-case.

Sun-plaiting is often drawn out in the making of gowns until all the fullness is eliminated and only the lines of the plaiting left. A white crêpe-de-chine skirt is thus treated, the bottom of the skirt having two graduated tucks above the wide hem. The blouse is fully plaited to a lace and fagoted yoke.

Fancy runs riot in parasol-handles. A sky-blue taffeta parasol has a brown-wood handle, the end of which is a large elephant-head skillfully carved. The elephant's trappings are fit for a rajah, being of gold thickly inlaid with small red and green jewels. The tusks are of ivory lightly gilded.

A simple but handsome hat is made of a flat plaque of écreu chip. It is shaped on a bandeau of white maline, and has a fine white ostrich-plume beneath, to fall over the hair on the left side and at the back. A double wreath of shaded pink roses extends half way around the top of the hat, and ends in two rosettes of black velvet ribbon. There is no other trimming.

Very long veils to twine around large hats and fall almost to the waist are seen on Fifth Avenue, especially for carriage wear.—American Cultivator.



A CHIC COLLAR

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LADIES' TUCKED WAIST WITH YOKE

Pelatihah

By JAMES C. FERNALD



A poor little forlorn, cold gray kitten on a back door-step greeted the head of the family one freezing morning. It was one of those days when, as the proverb says, "one couldn't turn a dog from the fire," and of course the same logic covered the cat, although the householder didn't like cats. But as the fire blazed and crackled, the stranger began to manifest the gratitude which Dean Swift has defined as "a lively sense of benefits to be received," and because it made the host uncomfortable to see a creature hungry, the kitten got a saucer of milk.

"Oh, my dear," said the good wife, coming down a little later, "we can never keep that kitten."

"All right," was the reply; "just as you think best. But I couldn't turn it out in the cold."

Hence arose an unanswerable problem. For how could an exceedingly tender-hearted woman do what a man couldn't bring himself to do? Kitty slipped through the silence into the library, and laid down by the sliding doors. Now, though the house was new, a little colony of adventurous mice had found out that people lived there, and had things to eat, and that the space in which these doors slid back and forth formed a ready-made and unassailable cavern. One of the little colony slipped out to reconnoiter, and at that precise moment Kitty awoke from a refreshing sleep, and walked proudly out into the dining-room exhibiting the trophy, evidently in payment for board. After that there was no question of sending the visitor away, and soon no trace of a mouse could be found.

The struggle for life is part of the process of evolution, and it came with thunderous barking, growling and scrambling a few evenings later on the snow that covered the front lawn. When the family reached the door, there in the center of the plot stood the mite of a kitten, with one fore paw raised in defiance, while circling around with a three-yards' radius, the newsboy's great white mongrel mastiff, "as big as a calf," as the milkman said, raved and roared, but dared not close in. The kitten was too wet to bristle, having apparently been either in the enemy's mouth or rolled in the snow, but the attacking party had the experience of the little boy who said, "Mama, I didn't know that bees had splinters in their tails." He had found that Kitty had eighteen "splinters" in those four little paws, and nothing could induce him to risk so hot a reception again. From that time the little gray kitten had only a wholesome contempt and defiance for the whole canine race.

The tall tulip-trees were the next scene of adventure. It was easy to climb up by putting one paw before another, but when up fifty feet above the ground, how was one to turn around and come down? So the little gray figure would hang wailing there where no human being could climb, and the family would be forced to go to bed with that plaintive cry from the tree-top the last sound in their ears. In the morning there would be a round depression in the snow at the foot of the tree, and no cat at the top. But while they were looking anxiously for the finish of the tragedy, the remains would come up very much alive and yowling for breakfast.

Surely such a valiant creature should have an honorable name, and that of a doughty Revolutionary ancestor of the family was judged appropriate. So the little fighter and climber was named "Pelatihah." The appellation seemed at once unique and fitting, and the family felicitated themselves on the happy selection until their theories were thrown into confusion by the sudden appearance of four small kittens. Every endeavor was then made to change the masculine appellation, but in vain. The name "Pelatihah" had become as much a part of the cat as her tail, and her case was like that of Barrie's "lassie wi' a laddie's name." ["The minister—it was Mr. Dishart—somehow had a notion 'at the littlin was a laddie, an' when he reads the name on the paper, 'Margaret Dundas,' he looks at Hendry wi' the barnie in his arms, and he says, stern like, 'The child is a boy, is it not?' . . . An' Hendry was confused, as a man often is wi' his first; so he says, all tremblin', 'Yes, Mr. Dishart.' Then, says the minister, 'I cannot christen him Margaret, so I will call him Davit.' An' Davit the littlin was baptized, sure enuch." So the poor little girl had always to be "Davie."]

Fortunately few people knew Hebrew, though good old Cotton Mather was sure it was the language of Eden, and believed it would be the language of heaven. So the incongruity of the masculine name does not disturb the general susceptibilities.

What a sight it was to see that untaught young mother educating those kittens! An ample amount of animal-food was provided in the residue of steaks, chops and roasts, but who could tell whether this artificial supply would last for another generation? Her offspring must go back to first principles, and earn their own living. Since there were no rats or mice about her home, they must be imported, and day by day she would bring the half-dead prey from houses and barns in the neighborhood, to give those kittens object-lessons. Sometimes, in special delight over her own prowess, she would lay a nice, large, fat rat on the sill of the parlor window, as a generous gift for any of the human family who might want a dainty meal.

She had learned to fight dogs, and her kittens must learn. She had none of the scruples of the human mother who consulted her pastor as to whether she should teach her Tommy to "hit back" when another

boy hit him, on which the minister's boy remarked that she needn't trouble herself, for Tommy had already settled that matter for himself. Pelatihah had a comprehensive theory of battle. It's very poor business to stand up, and strike with one paw—you have four of them, and a mouth full of teeth besides. Close in on your enemy, then fling yourself down, and discharge the whole battery at once, claws and teeth, in one simultaneous hide-rendering volley. She would demonstrate this to the kittens one by one, until the little things would fairly cry out at the severity of the lessons. But every one learned it; and instead of skulking into corners, they would march toward an enemy, waiting to get near enough for effective attack.

How Pelatihah did terrorize the dogs in those days after she had a family to defend! She had a favorite perch on a kitchen window over the bulkhead cellars. There she would sit, blinking in the sun, the very emblem of peace and domesticity. Suddenly there would arise from the lawn howls and yelps and "ki-yies," as some unfortunate dog fled madly with tail at half-mast, not believing until he got a block away but what the grass and bushes were full of cats.

Ethel insisted that Pelatihah deliberately left portions of every meal in her plate under the elm-tree, in order to tempt her victims within reach. The dog would come cautiously scouting across the fields. This time the coast was clear—not a living thing in sight—and that morsel was savory! He would put down his head to eat, when a streak of gray lightning would slide across the grass, and a rending fury would be on his back, where he could not fight, and clinging so that it was vain to fly. So complete became her ascendancy that she had only to walk quietly down the path, and every other animal would vacate the premises.

With all these wild, lynxlike traits, there was a touch of something uncanny about her. She may have begun life on a farm. At any rate, she scorned milk and preferred cream. She would let a saucer of milk disdainfully alone until what cream there was in it had risen to the top. Then she would sit down before it, and skim it, with one fore paw, inverted and used like a teaspoon, swept across the top of the milk and then lifted to her mouth to be lapped dry. What was not worth skimming off in that way she would leave. By an unfortunate lack of moral principle she would extend this ingenious process to the table, and as the men of the family violently objected to a "cat's paw" in their cream, she became profoundly distrustful of all people who wore trousers. One summer the whole family had gone to the mountains except the father and the eldest son. They chanced to meet in the kitchen one day, while the gray cat sat in her favorite resort outside the window.

"Father," said the son, "now the girls are away, I think it will be a good plan to dispose of Pelatihah."

"Yes, by all means," the father answered.

Pelatihah jumped down from that window-sill, and absolutely disappeared; and though the avengers looked for her for weeks, they never saw her gray coat once. At length, foremost of the family, Ethel came home. She had not been in the house an hour before Pelatihah was sitting tranquilly on the window-sill, ready to jump trustfully in when the window opened and a gentle voice said, "Why, Pelatihah!" It is to be feared that on very much less evidence our Puritan ancestors would have seen some old lady riding a broomstick above that house.

And what was the fate of this remarkable animal? Why, she has had none, and shows no sign of being near it, but is as bright and vigorous as two spitfire and unapproachable gray kittens can keep a fond mother. And the most adventurous rat has not the slightest chance to make even a beginning of the story that immortalized "the house that Jack built."

The Bridge Ghost

By FRANK H. SWEET

"Who evil seeks to do at night,
An' sees de ghost upon de benches,
Let him beware ob bridge-crossed light,
Ob moon dat skurrying cloud intrinches.
Better he turn, an' haste from dere—
If he keep on, beware! beware!"

crooned old Meg Noka in her deep, sepulchral voice, which was peculiarly impressive when used as it was now, in a slow, meditative soliloquy. Several of the boys lying up the bank shivered, and one or two of them began to repeat the doggerel over, as though trying to impress it upon their memory.

"What does it mean, Meg?" asked Al Hopkins, raising himself upon his elbow. "Does it mean the benches down to Ford's? Is there a story connected with it?"

The old woman deliberately knocked the ashes from her pipe against the step of the little cabin, and rose to her feet.

"I tole you ghost-story 'nough fo' one time, boys," she said. "Mebbe I tell you dis de nex' time you come. Yes, it's Fo'd's benches, or bridge, laik people call it now. An' it go way back to de time when Injuns owned de country. Mebbe you fin' out yo'-selves, you go dere some night on evil intent an' see de ghost. Den if de moon am out you better not go under de benches t'rough de shadder-line. Dat's de 'beware,' and with a harsh though not unfriendly laugh, the old woman disappeared within the cabin.

One by one the boys rose from the grass, and walked away. They were fond of coming to hear old Meg's stories, and their interest was not lessened by her reputation of holding familiar intercourse with spirits, or her knowledge of black arts, or the Indian blood that flowed in her veins.

"I tell you what, boys," said Al Hopkins, in a low voice, "I wouldn't want that 'beware' to mean me. It sent the cold shivers down my back just to hear it. These old medicine Indians have more to do with such things than folks think."

"Oh, pshaw, All you're superstitious," laughed Sid

Barker. "It's all humbug, except the listening; that's fine. I like such stories. Ford's bridge, or benches, never saw a ghost. But how about the chestnuts tonight? Of course we'll go."

Al made an almost imperceptible motion with his head toward a third boy who stood near them.

Sid laughed. "Oh, Phil Brown's all right," he said. "He won't go with us, of course—he's too good; but then, he won't talk. I'd as soon Phil would hear plans as for one of our own fellows, for he never tells. He tries to head us off sometimes, but he can't in this. I dare him to try it. Eh, Phil?" looking over his shoulder.

"Is it Mrs. Ford's chestnuts you are talking about?" asked Phil. "If it is, you fellows ought to be ashamed of yourselves. You know the old lady was in town today, and there was a big frost last night that must have brought the chestnuts down in showers. She hasn't had time to pick them up yet."

"That's what we're counting on," said Sid, coolly. "But look here, fellows," cried Phil, "Mrs. Ford depends on those four trees for her winter clothing and wood—why, they're almost all her living. They're the only chestnut-trees near here, and bear big crops every year. You know she can sell them for a good price, and you fellows don't need them."

"Oh, yes, we do—about two or three bushels of them," laughed Sid. "And just think what fun it will be gathering them. Why, under Mrs. Ford's trees a fellow can scoop up a double handful at a time. Well, Al, just as soon as it gets dark, remember; and we'll go by way of the river, under the bridge, and up that little path behind the house. She'll never think of any one coming that way. I'll have my boat at the landing; come there." Then to Phil, he said, mockingly, "Don't it make you want to join?"

Phil watched the two boys until they disappeared, one toward the village, the other in the direction of his father's farm across the fields; then he, too, started toward home. But before he reached there the look of perplexity and concern had left his face, and in its place was an expression which seemed to consist mostly of a broad grin and two merry eyes.

Al Hopkins and Sid Barker were the two bad boys of the neighborhood; thoughtlessly bad, perhaps, but nevertheless doing a great deal of mischief, and even injury. Sometimes they were caught and punished, but more often were let off with a reprimand. They were good-natured, obliging, and even ready to go considerably out of their way to do a good turn; so these virtues were usually allowed to cover the multitude of their shortcomings. As they pulled away from the landing in the gathering darkness, a man who saw them shook his head disapprovingly. Apparently they were going out on the river fishing, but the number of baskets and sacks which he had seen them toss into the boat indicated that something besides fish was in their thoughts.

For twenty minutes or so the boys pulled sturdily, leaving a long trail of outcurving ripples in their wake; then they held on their oars a little, and went forward slowly and as silently as possible. In front of them was Ford's benches, a long, roughly made foot-bridge which crossed the river. Beyond this the right shore rounded out, and was covered with tall trees and a dense growth of underbrush. Through this the small path spoken of by Sid led directly to the chestnut-trees. "Sh, now, Al!" Sid whispered. "Pull just as easy as you can, and let's don't talk. We'll be there in a few minutes now."

On they went, very slowly and cautiously and silently, and nearer and nearer came the shadowy outlines of the bridge. Clouds were skurrying across the sky, and now and then a shaft of moonlight flashed through them and rested for a few moments upon the water and the boat. Presently, as the bridge drew nearer, Al turned to see where to guide his boat. At the same moment came a deep, sepulchral groan. Al sprang to his feet.

"Oh, Sid, look! look!" he whispered, hoarsely; "the bridge ghost! And there's the crossed light beneath—the bridge shadow, you know."

Sid rose quickly, gave one look, and then sank upon the stern seat, his face to the bridge. His oar slipped into the water, and floated away unheeded. "It's—it's all humbug," he tried to say; but his voice was scarcely audible, and his eyes were full of horror at the awful thing which seemed to be looking down at them from the bridge. In the semi-darkness it was vague and shadowy, but against the background of foliage it seemed ten, fifteen, twenty feet high—they were too startled and confused to judge. Again came the deep, hollow groan.

Al caught up the remaining oar, and flung its blade into the water, and Sid made no protest. How they reached home the boys never quite knew; it was something they didn't care to talk about.

A few days later they were at Phil Brown's house. "Oh, about the chestnuts," Phil said at length, after they had made the rounds of the place, and were standing in front of a shed that was his particular workshop. "Did you get many?"

"N-no," Sid answered, evasively; "we didn't really go until the next night, and then we went by land, around through the woods. They had all been picked up before we got there."

"Yes," commented Phil, coolly; "I was down that day, and helped Mrs. Ford pick them up. We got five bushels of beautiful big brown fellows."

"Oh, say; we haven't been in your workshop yet," exclaimed Sid, as though desirous of changing the subject. "What are you tinkering on now?"

"Nothing much," replied Phil hastily. "Here, let's all of us go into the house. I've got some books I want to show you."

But he was too late. Sid had already opened the shed door and glanced in. Almost instantly he closed it, however, and flashed a peculiar glance at Phil. He had seen a long pole with a crosspiece near the top. Over the end of the pole a hat slouched, and on one of the arms of the crosspiece hung a long linen coat.

"Do you believe in ghosts, Phil?" he asked presently, in what was meant to be a careless voice; "such ghosts as old Meg tells us about, I mean."

"Well, no; I can't say I do," Phil answered.

"Neither do I," said Sid, emphatically. "They're humbugs."

Breaking the Jam

By FRANK T. MANN

"I will do it!" Tom Harding turned from the saloon door, where he stood hesitating, and a look of resolution, that visited his blue eyes only at rare intervals, mingled with the misery in them. "When a man's wife tells him to his teeth that he is a shiftless, drunken creature, and that she regrets the day she first laid eyes on him, then, I take it, that man has little to live for and nothing to lose. Anyway, I shall accept Squire Johnson's offer, let come what may."

He reached into the pocket of his faded, threadbare coat, and drew forth a crumpled sheet of paper. Slowly, for the fifth time, he went over the words printed in large, flaring letters, the ink not yet dry:

ONE THOUSAND DOLLARS REWARD

To the person who will break the jam collecting in Au Sable River two miles above Curtis before damage is done to the lumber-mills at that point I will pay one thousand dollars. All risks of life and limb to be borne by the one undertaking the work.

W. L. JOHNSON,
President Curtis Lumber Company.

Thrusting the paper into his pocket, Tom strode hurriedly down the sloppy sidewalk, and in a few minutes stood before the large brick building which contained President Johnson's office. A wave of indecision swept across his face as he scraped the mud and snow from his well-worn shoes. It was a perilous undertaking, and none knew the danger of it better than he. Then the recollection of his wife's bitter words returned with full force, and he hesitated no longer. "Maggie is a good woman in most things," he said to himself, and the blue eyes glistened, "and maybe I haven't done by her what I might. For her sake and the baby's I'll try it."

"Well, Tom, my man, you will undertake to cut the jam and save the mills?" said President Johnson a moment later, as Tom, hat in hand, stood before his desk. "Do you know that it is a dangerous piece of work? There is probably not another man in Alcona County who would run the risk for twice the sum named. Indeed, it was not so much with the hope of saving the mills as it was a formality to secure our insurance rights that the reward was offered. However, if your mind is made up it is not my place to dissuade you. If you are successful the money is yours, and I will add another hundred from my own private purse."

"And if anything happens to me, the money will be paid to Mag—my wife?"

"If the jam is broken, yes."

William Johnson was a kind-hearted man, and as he watched the big, childish lumberman move toward the door a suspicious film blurred his vision for a moment, and there was just the least huskiness in his tones as he bade him God-speed.

"Poor fellow," he murmured, as he turned to his work, "life has not been all smooth with him lately, and he is in a great measure responsible for his own misfortunes, but I should greatly regret if any evil were to befall him at this work."

In the smaller of the two scantily furnished apartments that constituted their home, Margaret Harding busied herself in the preparation of dinner. Glancing at the cracked porcelain clock on the mantel, she quit her work for the twelfth time, and going to the door, looked uneasily down the long, muddy street. It was deserted save for one solitary figure that came bounding along as fast as his short legs could carry him, regardless alike of the slush of mud and snow beneath his feet and the gusts of wind and rain which came near upsetting him at intervals.

"Say, you hearn?" he gasped, as he dashed up to where Margaret stood.

"What do you mean, Bobbie Carson? Have I heard what?"

"About Tom. He's undertook to cut the jam above the mill, an' mos' ever'body says he'll be killed. S'posed you knew about it." And swelling over the importance of his message, the thoughtless urchin galloped on his way.

For a minute or more Margaret stood looking blankly across the street through the dashing rain. Every bitter word she had uttered that morning recurred to her mind in all its cruel strength, and seemed to burn itself in on her very soul in great red letters of fire. The look, half of anger, half of sad reproach, with which he had turned from her and kissed the baby sleeping quietly in its crib—every incident of their quarrel returned with a significance magnified a thousandfold by her fears.

"I called him worthless and drunken," she said, with dry eyes and pale, trembling lips, "and he is neither. Poor Tom! Though he does drink sometimes, it is through discouragement and disappointment at his hard lot, and he is always kind to me. Oh, God, if I could recall my words! But is it too late? I may save him yet."

The Curtis Lumber Company's mills stood on the level bottom adjacent to the river and about one hundred yards from it. Half a mile above the mills the railroad crossed the river over a long iron bridge, and from a point just below the southern end of the bridge an artificial ditch had been cut to float the logs into the mill at high water. It was this bridge and the ditch that were responsible for the trouble which now prevailed.

Au Sable River was a roaring, booming, yellow flood. All day the great sawlogs, broken from their moorings above, had been rushing by in thousands. But now immense pine-trees, torn up by their roots,

were borne upon the bosom of the raging torrent. One of these monarchs of the forest had caught between the two middle piers of the bridge, and formed the nucleus of a rapidly growing mass of timber and debris, the long stems of the great pines writhing and rolling together like the hideous forms of gigantic serpents. Not only was the bridge threatened with momentary destruction, but the dam thus formed caught the waters up and hurled them and their ponderous armature down the ditch and against the mills below, with a violence that must soon accomplish their destruction.

To get at the pine trunk and cut it would release the straining, tumbling mass, restore the raging waters to their natural channel, and save the bridge and the mills. But woe to him who cut it!

When Tom Harding, ax in hand, stepped upon the bridge and started on his mission, not one of the group who stood looking on in breathless silence but felt that he was witnessing a tragedy.

"The man is committing sheer, downright suicide," said an old lumberman who had spent his life in the forest and on the river. "It oughtn't to be allowed."

But Tom had already reached the middle of the long structure, and was feeling his way down over the tumbling, grinding pile as only a lumberman can. Now he stood with careful footing upon the huge pine stem, bending under the awful strain, and now he plied his ax with telling vigor, making the chips fly at each powerful stroke. To an eye not cognizant of his terrible danger the sturdy lumberman might have been following his daily vocation for anything in his look or manner that denoted the contrary.

But the woman, wild-eyed and panting, with hair disheveled and hanging in rain-soaked tresses down her back, who just now joined the group on the bank, realized his danger, and a piercing shriek mingled with the roar of the waters.

"Oh, Tom, dear Tom, come back to me! Forgive my cruel words, and come back—for baby's sake and mine!" and she held the little, wet, shivering thing up in full view of its parent out on the river.

He heard not her words, but he saw his child, and every feeling vanished before the paternal. He turned and looked at the towering mass above him, and for a moment those on shore hoped he might escape. But the next! A terrible grinding crash, as the great tree parted, an awful, muffled roar, and for a single instant the lumberman's form stood poised on the broken tree. He kissed his hand once, and above the din came the words, "It was for you, Maggie; you and the baby," and then he went down, and was borne away by the rushing swirl of waters.

Half an hour later searchers found a limp, unconscious body suspended to the branches of a tree where it had been left by the now receding waters. It was at first thought that the man was dead, but closer examination revealed the fact that he breathed, and a liberal draught from a lumberman's flask forced down his throat partly restored him to consciousness. That night Tom Harding was carried home to his wife, terribly maimed and bruised, it is true, but still alive. Under her tender and happy ministrations he finally recovered, and from his terrible experience gleaned a lesson that will last him all his life. To-day not a happier trio lives than Tom and Margaret and their baby.

His Spanish Sweetheart

By WILLIAM FORSTER BROWN

THE curtain fell on the first act of the opera, shutting out Calvé's daring, defiant face as he mocked the baffled soldiers swarming about the steps below her, and Storer Edgerton made his way slowly into the foyer of the theater, a dumb ache at his heart that the passionate music of Carmen always awakened.

Well he knew that fair country "down near the walls of Seville," of which the great prima donna had been singing, for under its sunny sky he had lost his heart forever at the touch of a real Carmen's lips—dearer still, in spite of the silent years that had drifted between them, than any woman's could be to him again. Where was she to-night? he wondered; his Carmen—Carmencita. Dead, or had she forgotten?

Under the spell of the music, and unmindful of the throng of promenaders all around him, Edgerton's thoughts went back, borne on a swiftly rising sea of memory, and once again he stood under the sunny skies of old Spain, light hearted and fancy free, filled to the brim with the healthy joy of living.

Out of the past rose a vision of a narrow foreign street, down which came dashing a pair of unmanageable horses, mad with terror, and in the light carriage behind them two white-faced, helpless women. He heard again the shouts of fear and warning from the bystanders, felt his muscles, hardened by many a battle on the gridiron at Yale, instinctively set with the tension of steel as he dashed forward, swerving the runaways by the merest fraction from the great stone fountain in San Marco Plaza. Then, dusty and bruised, but triumphant, he looked for the first time into Carmen's glorious eyes, disclaiming in confused and broken Spanish the praise and gratitude her adorable lips gave him. "It is nothing," he had said, blushing like the veriest boy under the thrall of those incomparable dark eyes. "I am glad to have been of service to the Señorita. Will you trust the coachman (who had limped up to the group) to drive again?"

In the evening Don Rapheal Gonsalvo—the father of the girl he had rescued—had called at Edgerton's hotel, and in voluble Castilian thanked him for the service done the house of Gonsalvo, inviting him to dine at his residence the next day. The young American had accepted promptly, a curious, undefined feeling of joy thrilling his heart as he thought of looking again into the eyes that had haunted him all day.

Ah, well! Fate had pitilessly rung down the curtain on the happiness dawning into his life. A few brief moments on a moon-lit balcony; a sudden, swift, passionate avowal of the love that had mastered his

whole being; a whispered word and a shy caress in answer, and then—was it a week, a month? Time is as naught to those who dwell in Arcady—the war came, blighting Edgerton's promise of the future like the touch of Azrael's wing.

"There can be no thought of love or marriage," Don Rapheal had said, proudly, as he bade Edgerton a courteous farewell at the railway-station, "between a daughter of Spain—the sister of an officer in the royal navy—and one who owes allegiance to the flag of the United States. The price to be paid for the shattered wreck lying in Havana harbor forbids it."

A tear-stained note of undying love and farewell, worn almost to illegibility on the voyage homeward, was the only token left to Edgerton of his short romance. After that had come the silence. Even after peace had come again no clew that love could discover or wealth follow had revealed to Edgerton the whereabouts of his lost love. Carmen's sailor-brother had lain dead on the "Vizcaya's" deck at Santiago, and the old Don, broken-hearted, had followed his boy. So much Edgerton discovered. Of the daughter there was no trace.

A burst of melody from the orchestra brought Edgerton back from the land of dreams, as all at once a hand fell on his shoulder, and a familiar voice vibrated in his ears. "Edgerton, old chap, you're the very man I'm looking for. What luck to find you in all this crowd. I want you to join our supper-party after the opera. The mater, a young lady from Mexico—she's the niece of my governor's business agent in San Jose—your sister Helen and myself. Come on over to our box, there goes the curtain. Nonsense; of course you'll go."

After a feeble remonstrance, Edgerton followed his friend obediently into the semi-gloom of the box. "I suppose I may as well," he thought to himself. "The way I feel to-night, I don't much care what I do. Nothing matters."

Helen Edgerton nodded at her brother's entrance, and Mrs. Creighton extended her hand in a cordial greeting. "Good-evening, Storer," she said, smiling. "So glad Harry found you. Let me make you acquainted with a young friend of mine. Miss Gonsalvo—Mr. Storer Edgerton. You two should get on," she laughed, tapping Storer's arm with her fan. "Miss Gonsalvo is a native of Spain, and you spent two or three years there, didn't you? Let me hear you say 'how d' do' to each other in pure Castilian."

Edgerton, staring at the face that had risen from the darkness at the back of the box, reeled suddenly like a man who feels the ground slipping beneath his feet, and then, unheeding time, place and the wondering glances of the people about him, he opened his arms, with a great cry of incredulous joy, "Carmen! My Carmen!" With a rush the girl's dark head was on his shoulder, her lips pouring forth broken sentences of love and unspeakable happiness.

"Tell me, dearest one, do you love me still?" whispered Edgerton, tensely; while Creighton, rising suddenly to the occasion, interposed his broad shoulders between them and the front of the box.

"Hush, my adored one," answered the girl, softly. "Listen."

From the stage floated up to them the matchless perfection of Calvé's voice, singing to her mimic lover, Don Jose,

"Over the mountain and over the lea
I will share thy saddle with thee—"

"That is my answer," said the real Carmen, with a little sigh of content.

THE SLEEPY SONG

As soon as the fire burns red and low,
And the house up-stairs is still,
She sings me a queer little sleepy song
Of sheep that go over the hill.

The good little sheep run quick and soft,
Their colors are gray and white;
They follow their leader nose to tail,
For they must be home by night.

And one slips over and one comes next,
And one runs after behind,
The gray one's nose at the white one's tail,
The top of the hill they find.

And when they get to the top of the hill
They quietly slip away,
But one runs over and one comes next—
Their colors are white and gray.

And over they go, and over they go,
And over the top of the hill,
The good little sheep run thick and fast,
And the house up-stairs is still.

And one slips over and one comes next,
The good little, gray little sheep!
I watch how the fire burns red and low,
And she says that I fall asleep.
—Josephine Dodge Daskam, in McClure's.

MOTHER-LAND

Oh, Mother-land, we love thee,
Around thy knees we cling;
And of thy grace in many a place
Thy happy children sing.

Thy banner floating o'er us,
In hues of heaven's own light,
In all our coasts shall marshal hosts
For liberty and right.

From fort and fleet outstreaming
That flag of thine shall be,
Oh, Mother-land, o'er every strand,
The symbol of the free.

Oh, Mother-land, God bless thee!
God guard thee evermore,
From pine to palm, in storm or calm,
From ocean shore to shore.

—Margaret Sangster.

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The Young People

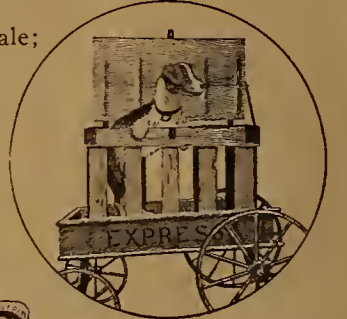
Circus Ridden

BY EDWIN L. SABIN



"Pa, I want some lemonade!"
"Pa, I want some candy!"
"Pa, what's that the man just said?"
"Pa, ain't that a dandy?"
"Pa, I'm awful dry; aren't you?"
"Pa, these aren't good places!"
"Pa, I've dropped my hat down through!"
"Pa, when are the races?"

Gorged with peanuts passing stale;
Satisfied—no, never;
Turning sundry faces pale
By some rash endeavor:
Sticky-fingered; backward not
Here and there to jerk us;
Four times lost; excited; hot;
Johnny sees the circus.



Puzzled rooster, dog and cat
Cooped in narrow cages,
Peering out through wooden slat,
In the worst of rages;
Cossack 'neath the cherry-trees,
On old Pete, asthmatic;
Upside down from a trapeze
Señor Acrobatic;

Tumbling (not "as advertised"—
Nose the special feature!)
Clothes-line as a slack-wire prized—
Bridget wild, poor creature!
Hay-loft veiled in mystery;
Sly attempts to work us
For ten pins admission fee—
Johnny's seen the circus!



HOW TWO CONNECTICUT BOYS CHANGED A COUNTY

A STORY which interested me was one I heard at Brunswick, Ga., which a drawling native from the interior told as illustrative of the aggressiveness of outsiders who came in to disturb the peacefulness of the neighborhood. When he finished, however, I felt that I would like to cross the intervening fifty miles of pine woods and shake hands with the two Connecticut boys who had done so much.

His county was in the pine belt, and was supposed to be capable of raising nothing but tar, pitch and turpentine. Nearly all the land was owned by large companies, and when the pine-trees were exhausted the land could be bought for from fifty cents to three dollars an acre. But there were no buyers, for, as the man said, "the land wa'n't wuth nothing." The natives lived in log cabins, worked a little for the "company," went hunting and fishing a little, and sat on their cabin steps and smoked more; the women for the most part chewed snuff.

It was among these people that the Connecticut boys came, buying as much of the cheap land as they could for the few dollars they had brought with them. They went pluckily to work clearing land, and as they could get to it, began to set peach-trees. The whole neighborhood hooted in derision, and yet in a way secretly rejoiced. They had declared the land was too "pore" to grow anything but pine-trees, and the foolish outsiders had paid not the least attention. Now it would serve them right to lose their money and labor.

But the "foolish outsiders" kept imperturbably on. They had been used to fruit-growing at home, and had very practical ideas about peach-trees and their requirements. They cleared more land and set more trees, doing as much work in a week as the ordinary able-bodied natives had been accustomed to in several months. And this incomprehensible persistence in work brought upon them more neighborhood suspicion. People who did like that, and who did not take time to go 'possum-hunting, could not by any possibility be all right.

Peach-pits were cheap, and the outsiders got as many of them as they could, and planted for future trees. And still they kept clearing.

Meanwhile the first trees planted grew and thrived amazingly, to the wonder and almost consternation of the neighborhood. The third year there was a good crop of luscious peaches, and the young men began to ship North, investing all the proceeds in more land and clearing and trees.

Now these two own more land in the county than any other persons outside the great companies; they have several hundred acres in bearing groves, and are shipping North almost by the train-

load; they own a store and many houses, in which live the help they now employ; and more than all this, the whole county has turned squarely around in its opinion, and has planted peach orchards by the hundreds, I might almost say by the thousand. Already the county is earning a wide reputation as a fruit-growing country, and all because the pluck of two discerning outsiders was strong and steady enough to withstand the loudly expressed belief of a whole county. S.

A MONSTER GUN

A big gun has just been completed and placed in position at Sandy Hook—made to protect our coast-defenses. It took four years to make it. With one thousand pounds of powder it will send twenty-one miles a projectile weighing twenty-three hundred and seventy pounds, and it is calculated that the projectile when fired will be able to go through twenty-seven inches of steel at a distance of two miles. Each time the gun is fired it will cost eight hundred and sixty-five dollars. Making, transporting and placing it in position at Sandy Hook cost one hundred and fifty-five thousand four hundred dollars. The Chicago "Tribune" has this to say of it:

"If the big gun survives the first discharge and satisfies the expectations of the builders and the government, probably that will be the last that will be heard from it. It will slumber on for years as peacefully as if it had no destructive possibilities within its huge bore, and the smallest bird that flies may light upon it with impunity. It will look out over the sea and keep faithful watch and ward for the approach of the country's enemies, who probably never will come within its radius of action; but if they come at all, they will seek a safer and more secluded spot. Conceding that this sixteen-inch gun represents the highest standard of the gunmakers' skill thus far reached, and that with its companions yet to be constructed our coasts will be secure from invasion, it is still to be hoped that time may not come when they are called into use. In any event their presence will greatly diminish the prospect of their use. Therefore, though costly luxuries, they are peacemakers, and the advocates of 'peace and good-will toward men' have no occasion to be distressed because the government has spent such a large sum for the giant gun."—Men of To-morrow.

A SMALL MATTER

One day grandma was holding the baby, who opened his mouth, showing her a tooth.

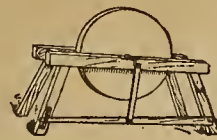
"Oh, mama, come here! As sure as I'm alive, baby's got a tooth!" exclaimed grandma.

Tommy, aged four, was playing with some books. He looked up, and said, "Oh, dear! Such a fuss about one tooth! Look here. I've got three—four dozen." —Little Chronicle.

Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



Selections

CONTENTMENT

Little I ask; my wants are few;
I only wish a hut of stone
(A very plain brownstone will do)
That I may call my own;
And close at hand is such a one,
In yondef street that fronts the sun.

Plain food is quite enough for me;
Three courses are as good as ten;
If Nature can subsist on three,
Thank heaven for three. Amen!
I always thought cold victuals nice—
My choice would be vanilla ice.

I care not much for gold or land;
Give me a mortgage here and there,
Some good bank-stock, some note of
hand

Or trifling railroad-share—
I only ask that fortune send
A little more than I shall spend.

Honors are but silly toys, I know,
And titles are but empty names;
I would, perhaps, be Plentipo—
But only near St. James;
I'm very sure I would not care
To fill our Gubernator's chair.

Jewels are baubles; 'tis a sin
To care for such unfruitful things;
One good-sized diamond in a pin,
Some, not so large, in rings,
A ruby, and a pearl or so,
Will do for me—I laugh at show.

My dame should dress in cheap attire
(Good, heavy silks are never dear);
I own, perhaps, I might desire
Some shawls of true cashmere,
Some narrow crapes of China silk,
Like wrinkled skins on scalded milk.

I would not have the horse I drive
So fast that folks must stop and stare;
An easy gait—two forty-five—
Suits me; I do not care—
Perhaps, for just a single spurt,
Some seconds less would do no hurt.

Of pictures I should like to own
Titians and Raphaels three or four—
I love so much their style and tone—
One Turner—and no more
(A landscape—foreground golden dirt—
The sunshine painted with a squirt).

Of books but few—some fifty score
For daily use, and bound for wear;
The rest upon an upper floor—
Some little luxury there
Of red morocco's gilded gleam,
And vellum rich as country cream.

Busts, cameos, gems—such things as these
Which others often show for pride,
I value for their power to please,
And selfish churls deride—
One Stradivarius, I confess,
Two meerschaums I would fain possess.

Wealth's wasteful tricks I will not learn,
Nor ape the glittering upstart fool;
Shall not carved tables serve my turn,
But all must be of buhl?
Give grasping pomp its double care—
I ask but one recumbent chair.

Thus humbly let me live and die,
Nor long for Midas' golden touch;
If heaven more generous gifts deny,
I shall not miss them much—
Too grateful for the blessings lent
Of simple tastes and mind content.
—Oliver Wendell Holmes.

A TUNNEL THAT HELPS TO DIG ITSELF

In the new Simplon tunnel under the Alps, which will be by far the greatest tunnel in the world, having a length of fourteen miles, and which, it is now reported, will be completed in July, 1905, the quantity of water flowing out of the southern end, from the many veins encountered in the heart of the mountain, amounts to fifteen thousand gallons a minute, and furnishes sufficient power to compress the air by which the drills are worked, and to refrigerate the tunnel. The necessity of refrigeration may be judged from the fact that the heat in the deeper parts of the tunnel rises as high as one hundred and forty degrees Fahrenheit when not artificially reduced. Life would be impossible in the tunnel if a successful system of refrigeration had not been devised. When a continuous hole through the mountain has been made, the temperature can more easily be kept down.—Youth's Companion.

In ourselves the sunshine dwells,
From ourselves the music swells;
By ourselves our life is fed
With sweet or bitter daily bread.
—Nixon Waterman.

THE POPULAR-MAGAZINE PUZZLE

Here are Six Pictures, Each Representing the Name of a Popular Magazine. The First is "Sporting Life." Can You Name the Others?

We Offer Eight Dollars Cash in Four Prizes, as follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State their Ages, and Answers Must be Received Before August 1st

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a copy of "Picturesque Philippines" will be given for the first correct list of answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first correct list from each state wins a prize,

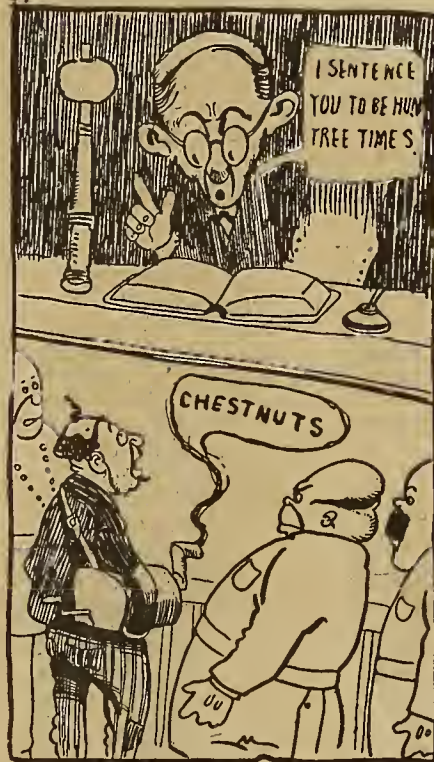
giving an equal opportunity to all our readers wherever they are located. In the states where the cash prizes are awarded the prize book will be given to the person sending the second correct list, so that one person will not receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



ONE



TWO



THREE



FOUR



FIVE



SIX

ANSWERS TO PUZZLES OF JUNE 15th ISSUE

The Six Precious Stones

- | | |
|------------|---------------|
| 1—Pearl. | 4—Turquoise. |
| 2—Agate. | 5—Sapphire. |
| 3—Diamond. | 6—Bloodstone. |

The cash prizes are awarded as follows:
Boy's prize, two dollars—Jimmie Baird, Bodcaw, Arkansas.
Girl's prize, two dollars—Julia Meyers, Hamilton, Ohio.
Man's prize, two dollars—K. Rittenhouse, State Road, Delaware.
Woman's prize, two dollars—Miss Mamie Cassell, Indianapolis, Indiana.
A consolation prize, a copy of "The New American Cook Book," is awarded to each of the following for sending the first correct answer from the state:
Alabama—Mrs. E. A. White, Montgomery.
Arkansas—Mrs. Jennie Ainsworth, Malvern.
Canada—Miss Edith Wilkins, Brantton, Ontario.

Colorado—Mrs. Carrie Hoch, Yuma.
Connecticut—Mrs. F. L. Brown, Meriden.
Delaware—William Fairley, Milford.
District of Columbia—James T. Holt, Washington.
Florida—Woodward W. Day, Pensacola.
Georgia—W. L. Wright, Powder Springs.
Idaho—Mrs. Alex. Johnston, Weiser.
Illinois—Hugh O'Heir, Chicago.
Indiana—Miss Anna Ryan, Anderson.
Indian Territory—Aaron C. Parrott, Checotah.
Iowa—Louise Kocher, Marion.
Kansas—Mrs. L. J. Frey, Elk.
Louisiana—Charles Lantz, Welsh.
Maine—Miss Eva Proulx, Biddeford.
Massachusetts—Miss Florence M. Horton, Brocton.
Michigan—Adelaide Charboureau, Detroit.
Minnesota—Harriet E. Oliver, Le Sueur.
Missouri—E. C. Bunch, Carthage.
Montana—Mrs. A. L. Sheperd, East Helena.
Mississippi—Miss Elha Jarman, Carrollton.
Nebraska—Miss Esther Bong, Havelock.
Nevada—Mrs. Lucy Payne, Ely.
New Hampshire—Grace Noyes, Concord.
New Jersey—Mrs. Sara M. Yale, Lakewood.
New Mexico—Mrs. Louisa K. Watrous, Las Vegas.
New York—Harold Fancher, Baldwinsville.
North Carolina—Eula Anthony, Vandalia.
North Dakota—W. E. Parsons, Page.
Ohio—F. H. Pearson, De Graff.
Oregon—Ada Loeff, Milton.
Oklahoma—Helen J. Kyger, Blackwell.
Pennsylvania—William A. Weisel, Jr., Philadelphia.
Rhode Island—William E. Martin, Westerly.
South Carolina—Mrs. M. J. Whisonant, Wilkinstonville.
South Dakota—Oral R. Jameson, Valley Springs.
Tennessee—Nell Stephens, Haley.
Texas—Mrs. D. M. Wilson, Kemp.
Utah—Miss Ovena Jorgensen, Nephi City.
Vermont—Percy K. Barrett, North Clarendon.
Virginia—Mrs. J. C. Townes, Mount Olive.
Washington—Elsie J. Matterson, North Yakima.
West Virginia—Miss Ida Shannon, Cairo.
Wisconsin—S. E. Beebe, Racine.
Wyoming—Mrs. R. S. Cox, Cody.

RHEUMATISM

Cured by External Application

Draws out acid Poisons through the large pores of the feet. Summer is the best time to rid the system of Rheumatism

Michigan's great discovery for the relief of pain sent FREE on approval to everybody. You try it

If you have rheumatic pains any time during the year, summer is the best time to rid your system of the cause, for your pores open much wider, and therefore the expulsion of foreign matter becomes much easier. Further, the fruit season usually fills one who has rheumatic tendencies with acids, which cause serious trouble later on. Now, then, you must expel these acids. Send for a free trial pair of Magic Foot Drafts on approval. If you are satisfied with the good they do you, then pay One Dollar for them. If not, keep your money.



Many thousands of letters of praise have been written by cured men and women who had faith or curiosity enough to try these Drafts. Don't be incredulous. The only logical way to cure rheumatism without taking injurious medicines is to draw out the poisons. Magic Foot Drafts will do this—they have done it for hundreds of thousands of people—why not for you? Booklet and Drafts sent promptly upon receipt of your name by the MAGIC FOOT DRAFT CO., 750-B Oliver Building, Jackson, Mich. Write to-day.

GRAY HAIR RESTORED

"WALNUTTA" HAIR STAIN is prepared from the juice of the Philippine Islands walnut, and restores Gray, Streaked, Faded or Bleached Hair, Eyebrows, Beard or Moustache to its original color, instantaneously. Gives any shade from Light Brown to Black. Does not wash off or rub off. Contains no poisons, and is not sticky or greasy. "Walnutta" Hair Stain will give more satisfactory results in one minute than all the hair restorers and hair dyes will in a lifetime. Price 60 cents a bottle, postpaid. To convince you of its merits we will send a sample bottle postpaid for 20c. PACIFIC TRADING CO., Dist. Office 222, St. Louis, Mo.

BIG PAYING BUSINESS For MEN, WOMEN. Write for names of hundreds of delighted customers. Make \$80 to \$50 weekly. Do business at home or traveling, all or spare time, selling Gray outfits and doing genuine gold, silver, nickel and metal plating on Watches, Jewelry, Tableware, Bicycles, all metal goods. Heavy plate. No experience, quickly learned. Enormous demand. No toys or humbug. Outfits all sizes. Everything guaranteed. Let us start you. We teach you FREE. Write today. H. GRAY & CO., CINCINNATI, O.

PHOTO BROOCHES 10c. Send us any photograph you want copied and we will return it unharmed with an exact copy on one of these pretty rimless brooch-mountings for only 10c. All our Photo-Minatures are exact and perfect reproductions. We send this 25c. sample for only 10c. to introduce our goods and send you Free our large list of photo-minatures, jewelry, novelties. Agents wanted. CORONA MFG. CO., Box 1275, Boston, Mass.

BRONGOIT A Remedy for Goitre, or Big Neck

Your family doctor will endorse its merits. Big neck disfigures and is unsightly; causes hoarseness, an asthma-like cough and shortness of breath. Goitre can be cured in a few months' treatment by taking "BRONGOIT TABLETS" and following out plain instructions. Send name and stamped envelope, and you will be mailed information of interest. Address Brongoit Remedy Co., Lock Box 612, Dayton, Ohio.

EYE BOOK FREE!

Tells how all Eye and Ear Diseases may be cured at home at small cost by mild medicines. It is handsomely illustrated, full of valuable information, and should be read by every sufferer from any eye or ear trouble. This book is written by Dr. Curtis, originator of the world-famed Mild Medicine Method, which without knife or pain speedily cures most hopeless cases. Dr. Curtis offers to send this book absolutely FREE to all who write for it. Address, Dr. F. Geo. Curtis, 321 Shukert Bldg., Kansas City, Mo.

FAT How to reduce it. Mr. Hugo Born, 344 E. 60th St., New York City, writes: "It reduced my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starling, no sickness. We'll mail a box of it and full particulars in a plain sealed package for 4 cents for postage, etc. Hall Chemical Co. Dept. B St. Louis, Mo.

Thought We Wish to Suggest. Are You Seeking an Investment? Are You Seeking a New Home? Try the GREAT SOUTHWEST. Missouri, Kansas, Indian Territory, Oklahoma and Texas. Descriptive Books Will gladly be sent on request. Low Rate Excursions On the first and third Tuesdays of each month. Write for particulars. "KATY," - St. Louis, Mo.

Hay Fever and Asthma

cured to stay cured. Never return. A radical departure. Cause eliminated. Constitution changed. Free of all ailments. Splendid health. Over 52,000 patients. Good references. ("Reliefs," or change of climate. FREE cannot cure.) Write for BOOK 58F FREE containing reports of many interesting cases. Address DR. HAYES, BUFFALO, N. Y.

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Positively Cured without knife or pain—non-poisonous home treatment; greatest remedy on earth. Particulars free. The Dr. Beck Cancer Cure, Englewood, O.

TAPE-WORM EXPELLER ALIVE.

Head guaranteed: FREE booklet. Byron Field & Co., Dept. C.B., 182 State St., Chicago

BED-WETTING CURED.

Sample FREE. Dr. F. E. May, Bloomington, Ill.

\$8 Paid

Per 100 for Distributing Samples of Washing fluid. Send 6c stamp. A.W. SUOTT, Cohoes, N. Y.

If afflicted with weak eyes, use Thompson's Eye Water

Wit and Humor

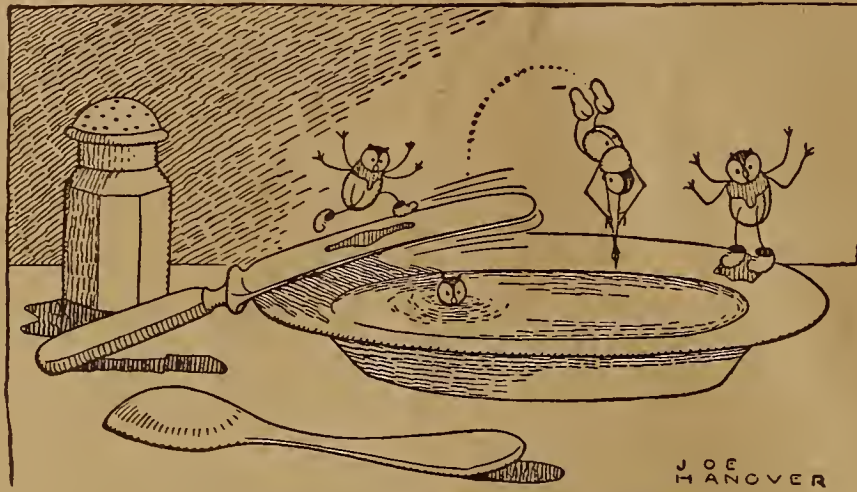
AN ESCAPE

WILLIE—"Say, that boy sliding downhill with me this morning got run over and killed. I'm glad it wasn't me. Gee, what a lickin' I'd have got!"—Smart Set.

A DIRE AND DARK THREAT

"Melindy Johnsing," sighed the amorous swain, "am you gwine ter marry me?" "Liphalet Snowball," whispered the dusky charmer, "'deed I jes' doesn't know whethah I p'fubs you or Mistah

the empire sovereignty, the great state of New York. Where are you from?" "I am from the greatest state in the country," replied the person addressed. "New York is all right in its way, but it doesn't weigh much without my state to give it being. New York would not be on the map without the means my state gives to keep it going, the actual bone and sinew of business, the plain, hard material for its capitalistic enterprises and the fuel for running the industries it dominates. New York would not be a grease-spot on the map if it were not



Chorus—"Come on, fellows, here's a dandy spring-board."

Gawge Washumton White, who suttinly hab bin pesticatin' me wid his love in a mos' magnificent mannah." "Hahtless woman!" hissed Eliphalet Snowball. "You am de mos' owdaciously flirtatious female in Souf Ca'lina. Listen! Ef you p'sists in 'fusin' me I am gwine ter seek a separashun f'um de trials an' tribblylashuns ob dis world—I sho' will." "Whut'll you do, Mistah Snowball?" "Whut'll I do? W'y, woman, I'll jes' go an' git de job ob pos'mastehin fo' dis town—dat's whut I'll do!"—Judge.

THE PLAN WAS SUCCESSFUL

There are many ways of fixing a misdemeanor upon the person who has committed it. It is commonly thought that lawyers, and not clergymen, are the men most competent for this practice, but the following story leaves one feeling that the honors may be equal: "Last Sunday," said the clergyman to his congregation, "some one put a button in the collection-basket. I won't mention names; I will merely say that only one individual in the congregation could have done so, and after the service I shall expect the same member to replace the button with a coin."

After church a well-to-do but close-fisted individual sought an interview with the clergyman in the vestry. "I—er," he began, "must apologize, sir, for the—er—button, which, I can assure you, was quite an accident. I happened to have the button in my coat-pocket, together with a quarter, and took out the former by mistake. However, sir, here is the quarter."

"Thank you," said the clergyman, taking the quarter, and gravely handing him the button. "By the way, sir," said the man, "I cannot understand how you could have known that it was I who—er—committed the—er—much-to-be-regretted mistake." "I didn't know," replied the clergyman. "Didn't know! But you said, sir, that only one individual in the congregation could have done it."

"Just so. You see, sir, it is scarcely possible that two individuals could have put one button in the basket; is it, now?" asked the clergyman, with a bland smile. It was so much easier for the button-contributor to say "good-day" than to answer this puzzling question that he made his bow at once.—Western Christian Advocate.

STATE PRIDE THRILLS

Secretary Shaw tells a story that illustrates the state pride that thrills the average citizen. Several traveling-men gathered in a hotel, and they fell to discussing their respective habitats. "I am from the greatest commonwealth in the world," said one of them. "I am from the center of the universe, the headquarters of the moneyed interests of the country, the home of the greatest aggregations of capital the world has ever known. I am from the state that rules the rest of the country and furnishes the brains of the United States. Without it the United States would pale into insignificance. I am from

for the steel, iron and coal for the railroads which my state furnishes. New York may do fairly well, but it couldn't be really great without the products of the great Keystone of the Union, Pennsylvania. Where are you from?" he asked the next man. "I am from the best commonwealth in the whole wide world," responded the third. "Pennsylvania is pretty good in some respects, and so is New York, but I am from the greatest section on the Lord's footstool. I am from the state that raises people that know how to do things, that furnishes more good Presidents to the nation than any other in the aggregation. I am from the great state of Ohio. Where are you from?" he asked the next one. "Well," replied the fourth traveler, "all three of you need not feel like apologizing for your domiciles, but they are not up to my state by a good long ways. None of your states could get along without food. The industries of the country would languish, every line of human endeavor would cease and the world would be at a standstill and the people thereof passed into a region be-

yond whereof we know not. Why? Simply because the workers are the real spinal column of every enterprise, and the human mechanisms that operate great industries must have food. The people in every square inch of the United States domain, and the entire world as well, are dependent on the food-supplying resources of the earth, the pabulum from the agricultural districts. I am from the state that raises more grain to the square inch than any other spot on earth, and if it wasn't for my state the rest of the states would be practically nothing. I am from Iowa. Where are you from?" he asked the fifth man. "I am from Arkansas," replied the last one of the party, whipping out a revolver and pointing it threateningly toward the group. "and don't any one of you say a word against her."—New York Tribune.

DOWN ON THE FARM

When fiercely smites the brazen sky, And pavements parched and scorching lie, 'Tis then the country-side invokes Its pilgrimage of "city folks."

The locust through the golden days His strident hurdy-gurdy plays; The fireflies furnish through the nights Their myriad electric-lights.

The flow'rs that deck the meadows o'er Eclipse the gayest milliner-store; They're wholly free to all who pass— No copper yells "Git off th' grass!"

The cows that 'mid the pastures walk Are fed on buttercups, not chalk! No gong they ring, but gently moo. The milk they serve is white, not blue!

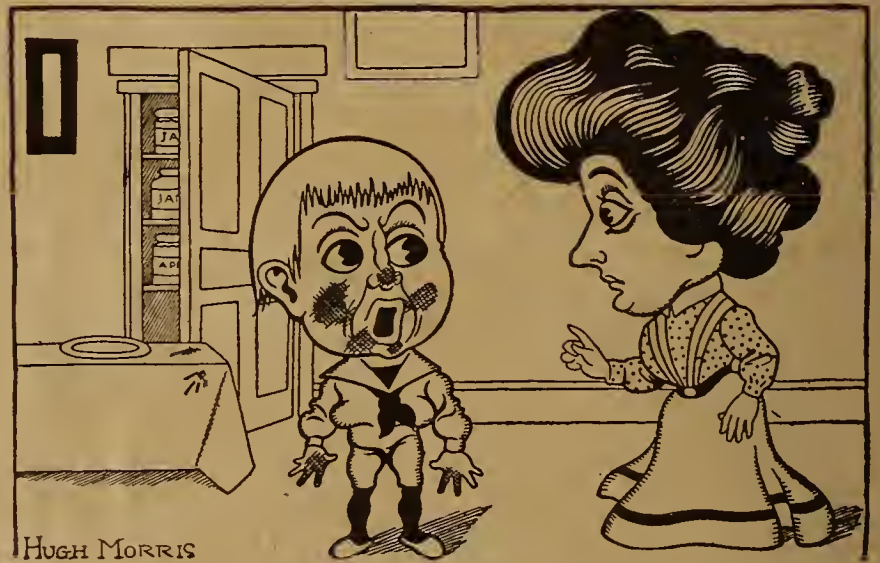
Here winds no plodding caravan With hail, "Fre-e-esh fish!" "Banan'!" "Banan'!" But hens strut forth on sturdy legs And kindly cackle, "Eggs! Fresh eggs!" —Four-Track News.

NOT HIS LETTER

Congressman Cannon was sympathizing with the woes of postmasters. "Why anybody would be a postmaster!" he exclaimed. "And yet there are hosts of applicants. But why anybody— Just listen now to what a postmaster from my district out near Danville went through the other day. "An Irishman came to this man, and asked if there was a letter for him. "There is," says the postmaster, "and it's a big, fat letter, too. There's eleven cents due on it." "Well," says the Irishman, "jus' open it, an' read it to me, will yez? Me education was neglected in me youth." "The letter was twenty pages long, but the postmaster read it all through out loud. "Jus' rade it ag'in," says the Irishman, when he ended; and being obliging, the postmaster did so. "Then the Irishman scratched his head, and said, 'How much is due on her?' "Eleven cents." "Well, kape her," said the Irishman. "She don't belong to me." And he walked off."—New York Tribune.

GOT THE OYSTERS

A captain of a Massachusetts regiment, stationed in Washington at the time of the Civil War, was noted for his love of good things to eat, and one day, dispatched one of his soldiers, a man named Bailey, to Alexandria to get some fresh oysters, giving him instructions not to



HUGH MORRIS

HAD HER GUESSING

"Where is the cake I left on this table?" "I guess it's with the jam that was in the closet, ma'am."

return without them. The Washington "Times" prints the story of his return: "After a lapse of nine days Bailey came into camp leading a train of four-horse wagons loaded with oysters. Approaching, and respectfully saluting the amazed captain, Bailey said, 'Here are your oysters, captain. Couldn't find any in Alexandria, so I chartered a schooner and made a voyage to Fortress Monroe and Norfolk for them. There are about two hundred bushels. Where do you want 'em?' "Bailey did really make the trip, hired his men, and sold oysters enough in Georgetown before 'reporting' to pay all expenses and leave him a profit of about one hundred dollars. The two hundred bushels were divided among the members of the regiment, and Bailey returned to his duty."—Youth's Companion.

A Garment-Cutting System

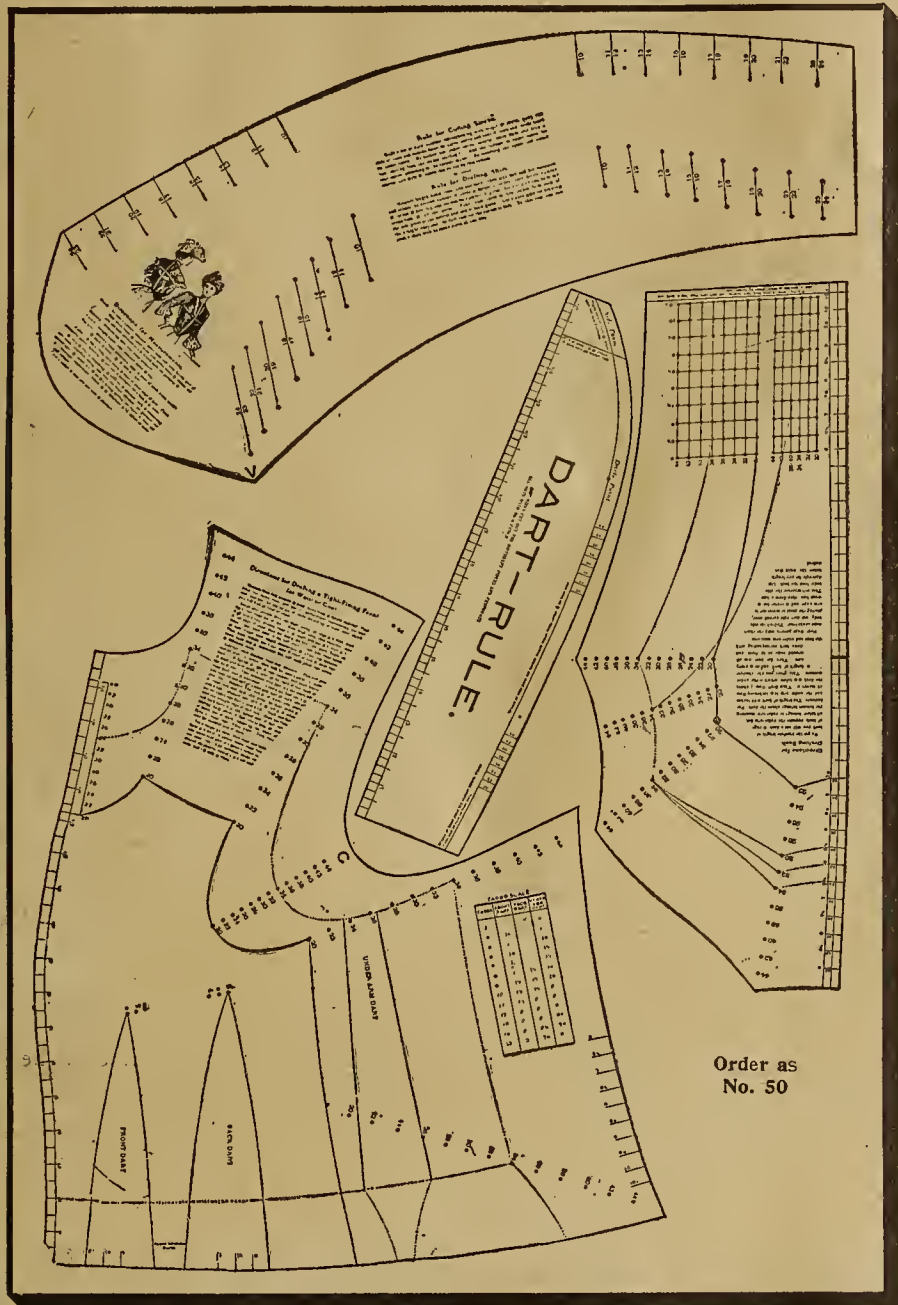
THAT ANYBODY CAN USE

MANY THOUSANDS HAVE BEEN SOLD FOR

\$5.00 EACH

BUT YOU CAN NOW OBTAIN IT FREE

FREE



THE NEW LONDON GARMENT-CUTTING SYSTEM

It is equal to any \$5.00 system sold anywhere, and this same system has retailed the country over for \$5.00. Order to-day, and get it FREE.

WHY WE DO IT

Because we think it a very practical and valuable article for every family. Because it is certainly a premium which will be appreciated, as it is highly recommended by people who are using it. Because it is so simple, and will enable a mother and her daughters to draft, cut and make their own garments, hence improve the knowledge of sewing, which is a very important part of their domestic education. Because nearly every family has a sewing-machine, and not one in twenty has a system of cutting.

HOW CAN WE DO IT?

This question will naturally be asked: "How can you give a \$5.00 cutting-system free with so small a subscription?" The answer is simply this: "We consider the NEW LONDON GARMENT-CUTTING SYSTEM one of the most valuable premiums for family use that we have ever offered. As a result we have bought an enormous quantity direct from the manufacturers at a price enabling us to practically give them away. This system is unique because of its simplicity; popular because of the rapidity and accuracy with which a pattern may be drafted by its use, and should be in every household."

IS THIS NOT TRUE?

If it were not for the expense of making, you could have new garments oftener, could you not? If you could get for nothing a system whereby you could avoid the cost of dressmaking and patterns, you would be interested, would you not? If you could effect savings in the cost of clothing for yourself and children, you could use the money thus saved to good advantage, could you not? If you wanted to learn and buy a system it might be hard to find one, might it not? Would you have your daughter spend six months as an apprentice-girl to obtain the knowledge of drafting and cutting she can get by this system in a day? Very likely not. You will doubtless answer "yes" to all these questions. We therefore call your attention to the fact that if you get one of our NEW LONDON GARMENT-CUTTING SYSTEMS it will enable you to do these things, and you can obtain one free of all charge by accepting at once these grand offers.

We will send this valuable Garment-Cutting System, and the Farm and Fireside one year, to any address, post-paid, for only **60c.**

NOTE If your own subscription is paid in advance now, and you accept this offer, it will simply date your paper ahead for another year. Write to-day.

FREE We will send this Garment-Cutting System absolutely free and post-paid for a club of **THREE** yearly subscriptions to FARM AND FIRESIDE at the clubbing price of 35c. each.

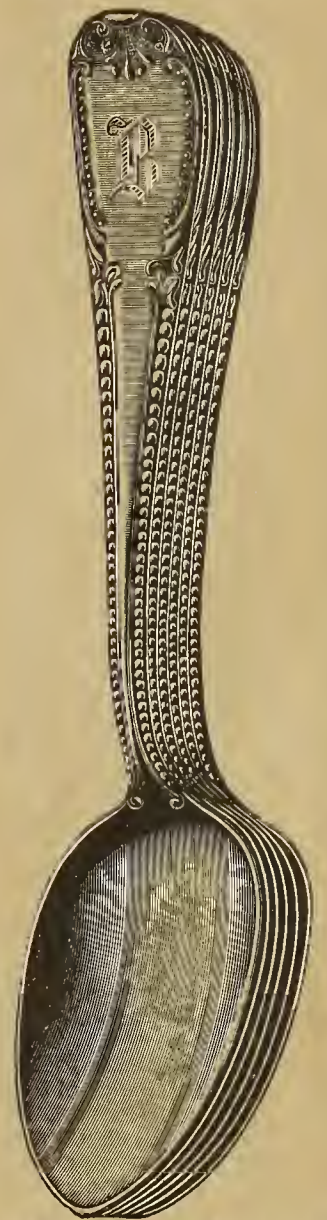
Address FARM AND FIRESIDE, Springfield, Ohio

6 Silver-Plated Teaspoons

and Farm and Fireside the remainder of this year, for only

60 cents

Or, Given FREE for THREE yearly subscriptions to the Farm and Fireside at 35 cents each



Set No. 60—Cut shows the ACTUAL SIZE

Nickel-Silver Base The base of this ware is solid nickel silver, which is white all the way through, positively will not change color nor rust, and will wear for a lifetime. It is the highest grade known, being full twenty-five-per-cent nickel.

Coin-Silver Plate On top of this nickel-silver base is plated the full STANDARD amount of pure coin-silver. This combination makes a ware which we guarantee to give satisfaction. Test it, and if not found exactly as described, return it to us and we will refund the money.

Initial Letter Each spoon is engraved free of charge with an initial letter in Old English. Only one letter on a piece. Be sure to name the initial desired.

Pattern We have the spoons in two beautiful patterns, No. 60 and No. 14. You can make your choice of pattern. Where no choice is named we will fill orders with our selection. We also reserve the privilege of substituting one pattern for the other if the supply in any particular initial is exhausted. We can thus fill all orders the same day they reach us. It is impossible to describe the beauty of these spoons, and the illustration falls far short of conveying a full idea of their attractiveness. In finish they are perfect, and will render complete satisfaction.

GUARANTEE

We absolutely guarantee every piece of this ware to be exactly as it is described and to give entire satisfaction or your money will be cheerfully refunded. We are sure it will please you.

(When this offer is accepted no cash commission can be allowed, and the name cannot count in a club toward a premium)

POSTAGE PAID BY US IN EACH CASE

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FARM AND FIRESIDE
Springfield, Ohio

ENTIRELY NEW

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Farm Selections

THE TOMATO AN INSECT-REPELLER

"I PLANTED a peach orchard," writes M. Siroy of the Society of Horticulture, "and the trees grew strongly. They had just commenced to bud when invaded by the curculio (pulyon), which insects were followed, as frequently happens, by ants. Having cut some tomatoes, the idea occurred to me that by placing some of the leaves around the trunks and branches of the peach-trees I might preserve them from the rays of the sun, which are very powerful. My surprise was great upon the following day to find the trees entirely free from their enemies, not one remaining, except here and there where a curled leaf prevented the tomato from exercising its influence. These leaves I carefully unrolled, placing upon them fresh ones from the tomato-vine, with the result of banishing the last insect and enabling the trees to grow with luxuriance. Wishing to carry my experiment still further, I steeped some leaves of the tomato in water and sprinkled this infusion on other plants, roses and oranges. In two days these were also free from the innumerable insects which covered them, and I felt sure that had I used the same means with my melon-patch I should have met with the same result. I therefore deem it a duty I owe to the Society of Horticulture to make known this singular and useful property of the tomato-leaves."

NEWS-NOTES

The farmers in Nicaragua raise two crops of corn. The first crop is gathered in August, the second in December.

Both research and demonstration farms are necessary. The experiment-station farm is very properly the one for research, while the demonstration farm is to show that the new methods are more profitable than the old ones.

The first peaches picked in Georgia this season were grown at Fort Valley. They were of the Snead variety, and were shipped May 11th. The second shipment was made June 5th, and consisted of the Greensboro variety.

To make the FARM AND FIRESIDE or any other agricultural paper of the greatest benefit to the community, the subscribers to them should encourage those who do not read them now to do so. Agriculture is now a business, and one must keep posted to make it a success.

To preserve eggs for midsummer, fall and midwinter use add one pound of water-glass (silicate of soda) to each gallon of water. It is best to use warm water in preparing the solution, but it must be quite cold before the eggs are put in. The eggs must be entirely covered with the solution, and remain so until wanted for use. The shells of eggs preserved in either water-glass or lime-water are made comparatively air-tight. If the eggs are boiled in the shell, when they are heated the air within them expands, and the shells are apt to burst. This may be prevented by piercing each egg with a needle before boiling. * * *

Announcement of Immigration Contest

As stated in our last issue, July 1st, the \$5,000 Immigration Contest closed June 25th, and the fiscal year ended June 30th.

The names of the prize-winners will be made known at the earliest possible moment, depending of course on the extent of time necessary for the government to make its report. The ports at which immigrants may enter are Baltimore; Galveston, Texas; Key West, Miami and Tampa, Fla.; Boston and New Bedford, Mass.; New London, Conn.; Newport News, Va.; New Orleans; Philadelphia; New York; Portland, Maine; Portland, Oreg.; Port Townsend, Wash.; Providence, R. I.; San Francisco; Honolulu, Sandwich Islands; San Juan, P. R., and through Canadian ports. From this you can see that it will take the government some time to get the information from distant points and compile it in the form of a report in proper condition to send out. We believe that it will take the whole month of July to accomplish this work, and you should not expect us to be able to give the results of this contest much before the August 1st or 15th issues of the FARM AND FIRESIDE.

Another "Rough Rider" Wins Out



WILLIE FUGATE is a twelve-year-old boy living in a town of 200 inhabitants in the Pecos River Valley, New Mexico, on the line of the Santa Fe Railroad. He had a broncho, but had grown tired of riding "bareback" and wanted a saddle. He read of a boy in an Eastern town having made money by selling *The Saturday Evening Post*, and wrote for information. His neighbors did not know much about *THE POST* and he sold only two copies out of the ten received. Most of the trains stop at Willie's town for water and he wandered down to the station "to see the train come in." When he saw a number of passengers step out of the train a thought struck him. Mounting a pile of ties, he announced in a loud voice: "You won't have a chance to get any more reading matter for 250 miles—you'd better get a copy of this week's *SATURDAY EVENING POST*." In about two minutes he had sold the other eight copies and could have sold a dozen more. That night he wrote for 50 copies for next week and sold every one. During the next month he sold over 400 copies and bought "not only a dandy saddle but a blanket." Since then he has sold an average of about 125 copies a week and each month won one of the cash prizes offered to the boys who do good work. He writes: "We have more coyotes than people here, but I think I can jump that order to 200 copies a week when the travel gets a little heavier."

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I RAISED 129 PIGS FROM 13 SOWS

ST. JOSEPH, ILL., April 11, 1903.
"Word comes to us that one of Fithian's prosperous farmers, John Rueb, is the champion hog-raiser of central Illinois. In the last two weeks he has had 13 sows that farrowed 129 pigs, all living, healthy and strong. Mr. Rueb claims that his success is greatly due to his using 'International Stock Food,' which he has used for several years. John is one of the up-to-date farmers, and he will continue to use 'International Stock Food,' and says he can always raise more pigs than any of his neighbors, unless they use 'International Stock Food.'"

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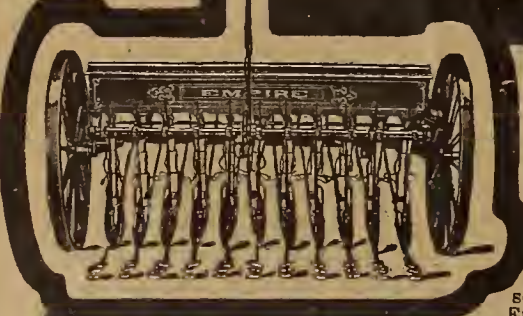
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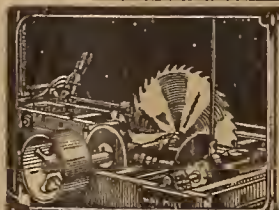
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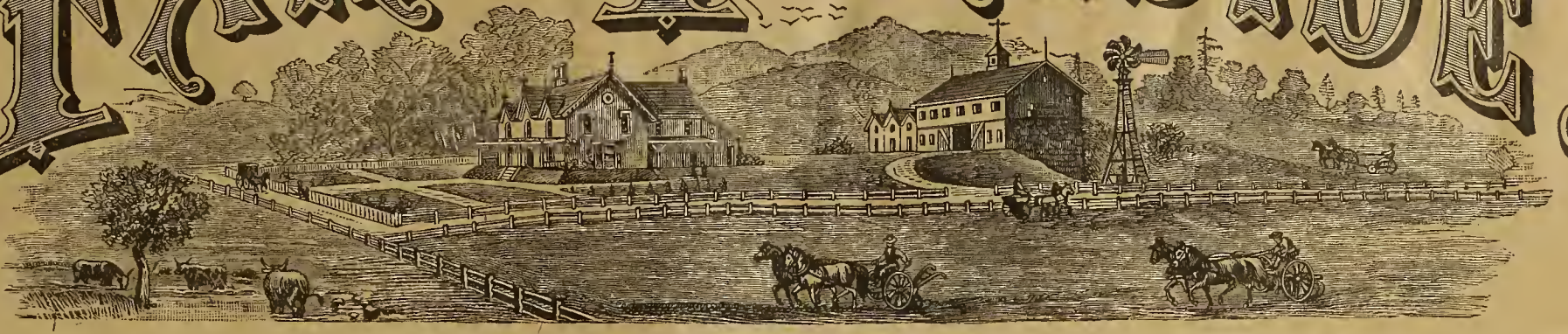


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FARM RESIDUE



Vol. XXVI. No. 21

EASTERN EDITION

AUGUST 1, 1903

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24 NUMBERS

The Abandoned Orchard—By Edwin L. Sabin

Half way up the southern slope
There it dumbly lingers,
Well-nigh dead to even hope,
Passed by kindly fingers.
Sturdy trunk and gen'rous bough
Which so oft have given,
Twisted, sear and barren now;
Wind and lightning riven.

Once this orchard old was young,
Coaxed and loved and tended;
Once its limbs a-blossom swung,
And with fruit low-bended;
Once the robin and the wren
Hastened here and nested;
High it piled its store—and then
Till the spring it rested.

Oh, those dear, dear summers long,
Filled with peace and duty;
Days of hours a golden throng,
Nights of starry beauty!
Each October breathed, "Well done!"
Winter's friendly rigor
Held it snug; and rain and sun
Called it forth in vigor.

Still one faithful redbreast pair
Seeks the old-time hiving;
Still some twigs their petals bear
In pathetic striving;
And when autumn comes, embrowned,
Summer's skies to dapple,
All a summer's dream is found
In a shriveled apple.



VIEW OF A MISSOURI APPLE ORCHARD—TWENTY THOUSAND BEN DAVIS TREES

The Grass-Mulch Method of Apple Culture

EXPERIMENTS in mulching show that a lack of a uniform supply of moisture is responsible for several orchard troubles which have been attributed to other causes. It is evident, therefore, that in the management of an orchard the aim should be to conserve moisture and at the same time to grow a crop which shall add to the supply of vegetable fiber. The grass-mulch method seems under certain conditions to admirably meet the requirements as to vegetable fiber and soil-moisture. It would be premature to attempt to say just what the limitations of the method are, but it appears to be widely applicable, and is especially advisable on hilly land—in fact, wherever cultivation is difficult, and on soil which washes and where grass can be made to grow.

To Mr. F. P. Vergon, of Delaware County, Ohio, and to Mr. Grant Hitchings, of Onondaga County, New York, is due the credit of demonstrating that apples may be successfully grown by this method. Both

of these men have worked along essentially the same lines for about fourteen years.

Thus far the method has been unqualifiedly successful, and merits a description; moreover, considerable misconception concerning it has arisen, hence there is not only danger of some going wrong who may attempt it, but many who might adopt it to good advantage may fail to see any good reason for doing so.

Mr. Vergon planted his orchard in a field which had been a blue-grass pasture for about fifty years, and at about the same time Mr. Hitchings began planting a young orchard where an old one had stood in grass for about one hundred years. He has also planted an orchard in a field which had been in cultivation for the same length of time, but had been well cared for, and another in a worn-out field. Both of these fields have been in grass from the time of planting. Both of these gentlemen dug large holes for the trees, and both mulched the newly planted trees. Mr. Vergon made

lay of the grass for a few years, but soon decided to take nothing from the orchard but apples. He has mulched the trees with the grass, and has also hauled in various kinds of material for the purpose. Mr. Hitchings mulches his trees until they get well established, and then cuts the grass and lets it lie.

The trees in both Mr. Vergon's and Mr. Hitchings' orchards began bearing at an early age, and have given annual crops. It is especially noticeable that the trees are able to carry a crop of fruit and to form fruit-buds at the same time, while the fruit is well colored and hangs on remarkably well. Even in dry seasons there appears to be no bad effects from dry weather on the growth of the trees or upon the size of the fruit. The loss by dropping is insignificant. All of the results which are supposed to come from good tillage and cover-crops are found in these orchards in a marked degree.—Prof. W. J. Green, in Bulletin No. 137 of the Ohio Experiment Station.

FARM AND FIRESIDE

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Mr. Greiner Says:

FLAVORING WATERMELONS.—A reader in South Carolina reports that some of the colored people in that state sometimes try to put lemon or other flavor into their watermelons by injecting a quantity of flavoring-extract weakened with water into a slit an inch long made in the vine near the ground, and putting a tight bandage around the treated portion. Nothing is too absurd for people to take up or believe.

HAIRY VETCH.—In one respect the winter, or "hairy," vetch has proved a disappointment to me. It blooms fully and freely—in fact, it has been a mass of bloom beautiful to look upon all season long, and is still blooming—but it does not set, and there will not be enough seed to reseed the ground after the present crop is gone. So if I want another patch (and I expected to plant a larger one this year) I will again have to depend on the seedsman for the seed, and pay about six or eight dollars a bushel for it. Possibly the plant may produce seed more freely in the colder portions of Canada than here. As an orchard cover-crop, however, this vetch will be hard to beat. It makes a dense mass of green stuff early in the season. Now that the stalks begin to die out and decay, I find the soil underneath nice, spongy, moist and soft, and the weeds thus far kept down or choked out. There is no question in my mind that when the vetch crop has died down the soil will be in better condition than before.

MISSING LINK APPLE.—A number of inquiries about the Missing Link apple, and where trees may be obtained, have been received. The task of finding trees of this apple in the nursery trade will be greatly simplified by the statement that the government experts declare the Missing Link none other than the old Willow Twig, which is a fairly good apple of well-known remarkable keeping-qualities. The "American Fruit Culturist" (Thomas) gives the following description of it: "Large, roundish, slightly conical, obtuse, very regular; greenish yellow, striped and mottled faintly with dull red; stalk short; basin very wide and deep, rim obtuse; flavor subacid, or rather acid, not rich. A long keeper. Shoots slender. Cultivated much as a market apple in southern Ohio." With one exception this description exactly fits the specimens of the Missing Link which have again been forwarded to me. The Missing Link is almost a sweet apple. Surely it is not "rather acid," and for this reason I doubt its identity with the Willow Twig. Sometimes even the government experts are mistaken. For trees, look in the advertising columns. That is the proper place for the announcement to be made.

LABOR UNIONS AND STRIKES.—In "union" there is often strength, but when the union feels strong enough to stand above law and order, then it shows already the beginning of weakness and coming decay. Recently we have had more or less trouble in this vicinity between union men and non-union men, the latter usually being called "scabs" by the former. The facts in the case are simply these: The union men easily get dissatisfied with their wages or treatment, and strike. Non-union men are willing to work in their places at the old wages, and the union men do not propose to let them do it. It seems a simple proposition. The Constitution guarantees to every man life, liberty and the pursuit of happiness. What

this really means has just been made plain by Judge Blair of the Hudson County Court of General Sessions, who, in sentencing a union man to the penitentiary for an assault committed on a non-union worker, said: "Every man has a right to sell his labor for what he pleases, and should not be interfered with in so doing. The question of wages is one between the employer and employed, and cannot be dictated by any body of men. This court will protect the man who is working for his livelihood, whether he belongs to a union or not. The right to labor must be secured as guaranteed by the law. The practice of persons considering themselves superior to the law, and trampling upon the rights of others, is becoming too common. Men who want to labor should be protected."

BIRD-LAWS.—Most of the bird-laws of the several states are quite voluminous. A bird-law which has recently become operative in Texas has about twenty paragraphs. Section 15 of this law reads as follows: "The English, or European, house-sparrow, hawks, crows, buzzards, blackbirds, rice-birds and owls are not included among the birds protected by this act. Nothing herein contained shall be construed to prevent any person from killing birds that are at the time destroying his growing crops." The first sentence shows that even legislators do not always fully understand the merits of the matter on which they legislate. Owls, for instance, usually do more good than harm. They live more largely on mice, grasshoppers and other injurious creatures than on chickens or other things of value to the farmer. This is also the case with most hawks, and more or less with the crow. I believe that all these birds should come under the protection of the law, with the sensible proviso embodied in the second sentence of Section 15 of the Texas law. Any person, I believe, will be granted the privilege (if not by a legal enactment, at least by a jury, and in conformity with his constitutional rights) to protect his property against marauders, both four-footed and two-footed, with or without wings. The wanton killing of birds not absolutely harmful should be forbidden.

IMPROVEMENT BY SELECTION.—Professor Day at Guelph, speaking of breeds of hogs, advises farmers to keep but one breed. Select the breed which happens to suit your fancy best, and then stick to it through thick and thin. There is more in the individual, he says, than there is in breeds. I believe that is often the case with other domestic animals, also, and likewise with plants. We can pick a good hog from any drove, of whatever breed, or we may select one that is "too poor for anything." We find extra good cows among the Jerseys, the Guerneys, the Holsteins, etc., and again we may happen to get a poor one. Among any breed of fowls, dunghills included, we occasionally discover the egg-a-day hen, and then again one that lays an egg only now and then, or one that is entirely barren. As a class we have not yet learned the urgent need of being all the time on the lookout for superior individuals, and of continued selection for improvement. In some recent cases (now on record) the egg-yield of a flock of hens have been materially increased in the course of a few years by breeding only from the best layers, and similar results may be secured by any farmer. Of a number of my hens, for instance, which have each selected an odd place to lay, one goes into the carriage-shed, and every morning, with almost unfailing regularity, I find her egg in the bottom of the carriage, under the rear seat. If it were earlier in the season I would surely save every one of these eggs for hatching, with strong hopes of raising a brood of good layers or reliable parent stock.

INDIVIDUALISM AMONG PLANTS.—The chances for the improvement of vegetables, fruits, grains, etc., by selection of individuals are just as plentiful and available as in the case of domestic animals. The trouble is that we have not appreciated such chances as generally as the importance of the case demands. There are just a few growers who make a business of improving certain lines of vegetable crops by selection, especially tomatoes, this being about the only one that has as yet been subjected to this process very fully and freely. We have not yet done even a fraction of what should be done in this respect with potatoes, one of the crops amenable to great improvement by this means. It was quite a number of years ago when the late Prof. S. S. Goff discovered by experiments that by planting tubers selected from the most productive hills the resulting yield was much larger than that obtained by planting tubers selected from the least productive hills. We have thus far failed to follow up the discovery in a practical way. It is time to take it up.

FLY-REPELLING MIXTURES.—Professor Day of the Guelph College of Agriculture gave us his recipe for a fly-repelling mixture, as follows: One tablespoonful of crude carbolic acid and one quart of seal-oil or any kind of cheap fish-oil; mix, and apply with a brush. Applied in this way it retains its effectiveness almost a week, while if applied with a hand-sprayer the application has to be repeated quite often, say three or four times a week. I have used various mixtures of this kind, among them a number of patented and highly recommended ones. I have found none as yet, however, which proved materially better than any other, and my home-made mixtures are giving fully as good service as any other I have tried. The mixture of crude carbolic acid and fish-oil is probably as cheap as any fly-repeller can be made, but we cannot easily get the fish-oil except in the larger cities, and sometimes not very readily even there. I use a mixture of oil of tar, which I can get at seventy-five cents a gallon, and kerosene, and I sometimes add a little crude carbolic acid, although this is not absolutely necessary. This may be applied with a brush or rag. I prefer to spray it on with one of the fifty-cent hand-sprayers. But I find that in order to be an effective protection the application must be repeated at far shorter intervals than is usually recommended. Whether you use a home-made mixture or one of the patented fly-repellents, once a day is none too often when you apply it with a sprayer, and I prefer to spray my cattle not less than twice a day. It is quickly done, is not expensive, and what a lot of torment it saves the poor brutes!

Mr. Grundy Says:

STRAWBERRIES IN TEN MONTHS.—A reader living in Iowa says he will move to another farm in August, and he would like to have a crop of strawberries next year. I would select strong plants in the old bed, and move them with as much soil as will stick to the roots, and carefully set them in well-prepared soil, and water daily until they become established. Two hundred plants carefully lifted and well set are worth a thousand dug up and moved without any care. Mulch well with straw as soon as the ground freezes, and don't take it off in the spring, but simply uncover the plants. The mulch will prevent the plants from drying out.

NORTHERN SEED-OATS.—On my desk are two letters that came in the same mail. One is from a farmer who wants to know why he cannot grow good crops of oats on his land any more, the other is from another farmer telling me what a magnificent crop of oats he has grown this season. The first says he obtained seed of a very fine variety six years ago, and grew two good crops. The third was only a medium crop, the fourth a small one, and the last two almost failures. He prepares the land well, but it seems to do no good, and he wishes to learn whether I think he has exhausted the "oat elements" in his soil and will be obliged to quit trying to grow them.

The letter of the other man answers the question. He says that four years ago he bought seed of a friend living about two hundred miles north of him, and grew two splendid crops. The third crop was rather light, and he concluded that he must change his seed; so he bought twenty bushels of a new variety from a neighbor of his Northern friend, and sowed them on twenty acres of corn-land, disking them in well, and he says he has a crop that will yield fifty to sixty bushels an acre. He says, further, that about fifteen years ago he discovered that to get good crops it is necessary for him to change his seed every third year, and that the seed must come from two or three degrees of latitude north of where he lives. He lives in latitude 39-30. The other man lives only a few miles further north.

My own experience and observations years ago between latitudes 38 and 41 showed plainly that no variety of oats will do well for more than three or four years, and that new seed should be procured from the North. The cause of deterioration seems to be in the climate, and not in the soil. A neighbor once procured thirty bushels of seed from a locality a little over two hundred miles north, and sowed them on twenty acres of corn-land which he had skimmed over three inches deep with the plow, and the crop yielded a fraction over sixty bushels an acre, while oats that had been grown in the neighborhood several years yielded only eighteen to twenty-five bushels an acre. The great yield of the Northern oats set the farmers wild, and the grower sold most of them for seed as soon as they were threshed. In three years they yielded no better than common native oats. The same man procured another lot of seed from the North, and they yielded nearly fifty bushels an acre the first year, but they did not create the stir that the first lot did, and the third crop amounted to only about twenty-five bushels an acre. If it is a "good oat season" in the latitude mentioned, native-grown oats give a very fair yield, but Northern-grown seed invariably outyields them. The time to procure seed is threshing-time, not spring. The oats can be procured through the granges at a slight advance over market prices.

INSTITUTE ATTENDANCE.—One of the most perplexing problems that confronts the farmers'-institute worker—not the speaker, but the man who manages the institute—is how to get the farmers to attend it. I find that each locality has its own difficulties with which to contend. A man can advertise a free street-show with negro comedians, songs, music and performing dogs, and fill the town to overflowing with people who stand in greatest need of the instruction given at a farmers' institute; but let him undertake to bring them in to the institute, and he will have his hands more than full. Advertise the show, and it is the "talk of the town" for weeks before it arrives. Advertise the institute, and scarcely any one mentions it in conversation. There are localities where an institute arouses quite a good deal of enthusiasm, and the attendance is large without any special effort being made to boom it; then there are other localities where it is a most difficult task to induce farmers to attend. Last year I put forth the best efforts of which I was capable to secure a large attendance at our institute. The attendance was good, but the men I wanted, the men who most needed to attend, did not come. Yet I have seen those same men and women going in crowds to a street-fakir show or a scrub-horse race. Last year I secured Professor Blair, instructor in horticulture at the state university, to speak on the management of orchards, as there are quite a number of orchards in this locality, and both attendance and interest were not half what they should have been. A man who owns several large orchards said afterward that he heard we were to have a speaker who claimed to know something about orcharding, but he really was too busy to attend. Others thought they knew about as much as anybody else about orchard management, and they didn't care to spend any time listening to professors. All of these people stand very much in need of just the instruction Professor Blair gave, yet they missed the chance of a lifetime to get it. This year I have secured Doctor Hopkins of the state university as one of the principal speakers. In other states people go nearly a hundred miles to hear Doctor Hopkins talk about soils, and while I feel sure that we will have a large attendance, it really should be so large that no hall in the county would accommodate half of it. The soil is the farmers' capital, and every one of them should be doubly interested in the best methods of managing it.

FARM THEORY AND PRACTICE

GETTING HEAVY SODS.—

A study of the statistics of crop areas in this country will impress any one with the relative importance of sods. Pasture-grasses, meadow-grasses and the clover occupy, or are supposed to occupy, the greater part of our land. A study of the needs of soils in respect to fertility shows that heavy sods rotting in the ground are the factor most to be desired. In various ways they secure to the land the power to produce well when cropped. No one matter in American agriculture is of greater importance than improvement in the growth of grass and clover sods, and if the needed gain in this direction were secured, our agricultural prosperity would not only be far greater, but it would be on a safer basis. Much land is drawing chiefly upon its stock of available fertility that has been accumulated for centuries, and much other land has already passed the point of profitable cropping. The ability to provide for itself a heavy sod is the true measure of value for the major part of our farming area. Consideration of the best methods of getting such growth is the most important matter before the farming public, because it vitally affects more people and more land than any other matter. Many who are really the most concerned do not realize the truth, the evidence being found in the carelessness shown in new seedings and in their absence, and in the increasing inability of much land to produce surely and well because the humus is exhausted.

APPLYING MANURE.—Too much of the farm supplies of manure is going upon summer crops. There is temptation to do that when the crop is a cash one which gives quick returns from manure. The cash is wanted and needed, and the manure is converted into money as quickly as possible. However, the new seedings to clover and grass have the greatest need of it in a majority of cases, and such use is the more justifiable, because quite light applications are effective, and the farm supply will benefit many more acres than it would when applied as heavily as is usual to cultivated crops. A light coat of manure gives marked results as a top-dressing for land that is to be seeded down or that has young clover and grass in the stubble of harvested grain. The facts that good sods are a big consideration, and that light applications of manure are so helpful in getting them, should cause us to devote more farm manure to making them reasonably sure.

There is an inclination to spread manure thickly on any land, "making it good" so far as we go, but such a method is a mistaken one. Half the quantity oftentimes used would furnish all the nitrogen needed, and also the bacteria that produce much of the benefit attributed to stable manures; and thus the manure might be put on double the number of acres with the very best results if some mineral plant-food in a commercial fertilizer were used to balance up the manure by adding to its stock of phosphoric acid, and it may be, potash. Thin and even spreading of farm manures gives the most profitable returns.

WHEAT AND GRASS.—We continue to seed an immense acreage with winter wheat, notwithstanding the relatively low price of this grain and the very small net profit an acre. The straw is wanted, but the desire for grass and clover is responsible for much of the winter-grain production. The wheat is used as a crop with which to seed for meadow or pasture, and such use would make it indirectly very profitable if heavy growths of clover and grass were pretty sure to follow the wheat. But they do not follow on the very land that needs them most. We see thin, weedy meadows in all directions. There is failure in evidence that is responsible for reduction in soil-fertility. The thin meadow is not producing a mass of roots for its own improvement, or a growth of feed for the benefit of its owners. It is traveling down-hill, and taking its owner with it. What is the matter?

A BETTER SEED-BED.—For fall-sown grasses, like timothy, there should be a fine, firm seed-bed, holding moisture during drought. Moreover, the surface-soil should be fairly free from all bad weed-seed. These conditions are secured only by early preparation of the land. All thin and foul land should be broken in the spring or early summer, and given a cleansing-crop like beans or cow-peas. Corn is all wrong for such land, exhausting the fertility too much. The crop should be one that shades the soil well when cultivation ceases, keeping it sufficiently loose for seeding in the fall after a harrowing of the stubble. That helps to insure a supply of moisture for fall growth of the grass, and of the wheat or rye if either is in connection with the grass.

Fertile land will bring a good crop of wheat followed by a good crop of clover or grass, it may be, without any special preparation. With such land we are not now concerned. The poor meadows, yielding one ton or less of weedy hay when two or three tons of clean hay should be gotten, are not usually on fertile land, and the continued infertility is due largely to the poor sod. It should be the owner's business to prepare for a better sod, and he can well afford to take the summer for it. The heavy feeder of live stock may quickly set such a field aright by applying manure freely, but there is not enough manure for one half this unprofitable land. In such cases use the renovating-crop during the summer, and preferably one that will leave more available fertility than it found. By use of the crop secure a firm, moist seed-bed free from weed-seed. This is half the battle. Spread a little manure over the land, if practicable. Use a fertilizer that supplies what is needed. I prefer to mix acid phosphate and raw animal bone, half and half, for grass-seedings. You may also need potash. If land has never been limed, there is strong reason to believe that half a ton of ground lime drilled in before seeding to wheat or timothy will be found of much assistance in getting a sod, and especially clover.

THE SEEDING.—A variety of grass and clover seeds is better than a single kind. Some redtop and some

All Over the Farm

Alsike clover are a help to timothy and red clover. Use seed freely—such use is wise. Divide the seed, sowing half crosswise the first seeding, and a few days later. If all farmers would go after a good sod as thoroughly as some good growers go after a potato or corn crop, there would be fewer thin meadows and less land losing its store of humus. DAVID.

A GOOD HAY

Where farmers are so fortunate as to have good fields of clover from which the first cutting has been made for hay, if the second crop is encouraged to grow, and is cut when in full bloom, hay of very fine feeding value will be secured. Usually as fast as I have the first crop of clover removed I cover the land with a light dressing of well-rotted manure applied with a spreader. When the land is good and the season favorable the growth of the second crop is rapid; and if clean hay is wanted where manure is applied, it is essential that the manure be well rotted and so distributed that none will be left so the rake may gather it up with the hay.

Until I began to make this hay, several years ago, it was farm history here that hay from second-crop clover was of very inferior quality, and while it might be eaten by hungry cattle, it was totally unfit for horses for the reason that when eaten by them it produced "slobbers" of a very dangerous character, the horses becoming enervated and unable to perform their accustomed work. Consequently I did not allow my horses and mules to eat the second-growth hay, but fed it all to my cows and young stock. I soon discovered the great relish these animals had for it, and how excellent it was in the production of results. With this experience it was not long before the horses were eating the rowen hay, too, and doing their work as usual.

I recall an occasion when my brother-in-law was visiting us, and driving a horse which he thought directly descended from Pegasus and entitled to only the finest of horse fare. I admired his love for his horse and his ability to own such a good one, but did not admire his fussiness. I had understood before the visit was made that it was to continue several days. I had no hay accessible but my latest-gathered second-crop clover, which was being fed to my own stock, and it was given to the strange horse, too. I tried to keep the man away from the barn, for I knew that rowen hay would not rest well on his stomach, however much it might agree with his horse. But he got to the barn, and his visit terminated early the next day.

A number of lessons may be drawn from this incident—the hay was not hurting my horses, and a few feeds could not hurt his very much; it was not worth while to shorten a visit because of needless concern for a horse, and (this in favor of the good offices of the hay) keep some on hand for the horses of tire-some visitors who are too fussy about their horses.

I have been told that the fact that I cut my second crop after the dew is off in the morning accounts for its good quality—that it is the dew on the clover when cut that induces slobbering in horses. However this may be, I wait for the dew to pass before starting the mower, and try to have the hay thus cut all in the windrow or cock before too much moisture gathers on it in the evening. If in the windrow over night, I cock the next day, and the next day upset the cocks to allow of the evaporation of moisture collected at the bottom of cock, and haul to the barn at once. If cocked over the first night, I open the cocks the second day and close again before night. The treatment the third day is that already described.

If the second crop is thus cut for hay when it is in full bloom, a third growth usually comes to good size before the cold of fall stops the growing, and leaves a good covering for the ground through the winter. There is no hay made on our farms that I value more highly than clover rowen. W. F. McSPARRAN.

LIGHTNING-RODS—DO THEY PROTECT?

Until last summer one of the neighbors had a lightning-rod on his barn which had been there about thirty years. When I first knew it, there were glass insulators, but they had long since disappeared, and for years it lay against the barn at places, and at others was held off by the iron stays.

"What do you think of my lightning-rod?" he said one day. "Some say it will do no good, and some have it that it will do harm by attracting the lightning, and by having no glass insulators, will burn the barn. I guess I will pull it down." Of that job he was relieved some time after by a lightning-bolt during a heavy thunder-shower. Its length was measured on the ground, and the bolt, apparently leaving the rod, passed through a tread-power which stood near, ripped up several floor-plank, and so far as could be surmised, disappeared in a cistern.

There were various opinions expressed on the subject. Some said if it hadn't been for the rod the barn would have been burned, while others insisted that the rod drew the lightning, and not being insulated, passed it on into the barn.

Another, who was more inquisitive than the others, dug up the rod where it was grounded in the earth. It extended only to the depth of three feet, and ended in comparatively dry earth. This showed that the cause of the trouble lay in improper grounding. If it had been carried to the cistern, the electric discharge would have left no record of its passage from the sky to the earth. It is probable that in this way lightning-rods do a great deal of good for which they never get credit. Before their introduction, ships at sea and high buildings suffered terribly from electric storms. But taking them as they are found through the country, with all their defects, they are not regarded as much protection. Insurance companies that have the statistics of the matter down pretty fine do not

take in account, when writing a policy, whether a building has a rod or not.

The electric fluid in passing from the clouds to the earth, as it sometimes must, is supposed to follow the line of least resistance. A bolt near a building will find an easier

passage down a well-grounded rod than through the building. The resistance which the latter offers is what causes the trouble. Glass insulators are of little value, as if the rod is a good one there is no tendency for the lightning to leave it, and if otherwise, lightning has been known to jump about considerable.

It is a well-known fact that barns are struck more frequently than dwelling-houses. This is explained by the fact that when hay is being stored in the barn, a current of warm, moistened air is continually rising, making a path more conducive to the electricity than the ordinary air. The higher anything is, the more attraction, so to speak, it has for the electric currents. For objects of comparatively little altitude, such as roofs of farm-buildings, trees, etc., lightning will be diverted but little from the path it has chosen to the earth. This is proven by many curious freaks which have been observed during thunder-showers. A tree escapes, and a cow near by will be killed. It is related of a man, who, to avoid danger during a thunder-shower, walked around a wood at some distance from it, instead of going through it. Lightning struck a horse which was standing between him and the timber and not fifty yards distant from it.

Scientists agree that lightning will not go much out of its way to pass down a rod. The greatest area of protection that is allowed the rod is a lateral distance of twice the height above the building. Therefore, if a large barn is to be protected by rods, there will need to be several.

The days of the notorious lightning-rod agents are about past. If there was no downright fraud in their business, they usually put up a defective rod for about twenty times what one ought to cost.

If you want a rod, go to your blacksmith, and together you can fix up as good a one as can be made. Five-eighths-inch iron is about right, and have the blacksmith make a sharp point for the top. If this could be galvanized, so much the better; so also in case of the portion which goes into the ground, to prevent rusting. You can attend to the putting up yourself. Wooden blocks are the best things with which to fasten it to the building, and have no sharp turns in the rod. The most important part is in getting it into the ground right. It should go to water wherever practicable, or at least to permanently moist earth. If practicable to carry it to a cistern or well, this is an excellent arrangement. GRANT DAVIS.

NOTES ON PAINTING

Nothing will detract from the appearance of a farm so much as old, weather-beaten barns and sheds, and farm-machinery, etc., which look shabby for the want of paint. You can, however, make the old barns and sheds look well at small cost for paint by using a water-paint, which can be put on by a cheap hand.

I give the following formula for making a cheap paint: Take seven pounds of sifted Portland cement, one gallon of skim-milk and three pounds of whiting. Break up the cement and whiting to a stiff paste with some of the skim-milk, then add the remainder of the milk, having previously added to it one half pound of fresh-slaked lime, and stir well together. Dissolve one half ounce of sal-soda in one pint of water, mix it with one pint of linseed-oil, and stir the mixture well into the paint. If the paint is too thick, add more milk; if too thin, add more whiting. Strain the whole through cheese-cloth.

You can color the paint buff by adding yellow ocher; drab by adding burnt umber; olive by a mixture of the two; olive-green by a mixture of green and yellow ocher; leaf-green by adding chrome-green; change the leaf-green to sage-green by adding a little umber, or light gray by adding lampblack.

To prepare the colors, take whichever dry color you want to use, and rub it to a paste in a little of the paint. When made to a paste, put it in a cup and mix thin with some more of the paint, then pour a little at a time into the paint until you get the color you want. Paint some on a board, and dry it. If it is too light when dry, add more color, and test again until you get what you want. Lampblack is so light that it is impossible to mix it with water-color until it has been cut with benzoin or gasolene.

You can put this paint on with a whitewash-brush with a long handle, and save yourself a lot of climbing. If the paint is colored, it will take about two coats; if white, old, weather-beaten work will take three coats.

To prepare farm-machinery for painting, sandpaper it to take off the old paint, if there is any left on in loose patches. If the paint is sound, and has any gloss left, sandpaper just sufficient to take off the gloss; then mix one and one half pounds of Venetian red to one quart of boiled oil, two ounces of turpentine, and the same of japan. Give the work a coat of this. When dry, make the same mixture of oil, turpentine and japan, and put in two and one half pounds of Venetian red; then give the work a coat of this mixture. This should be a fairly heavy coat. If too heavy, add more oil; if too light, add more red. If this coat stands out with an even gloss, it is enough; if not, put on another coat.

Paint the ironwork black with the following mixture: One half pound of asphaltum, one ounce of gum benzoin and one quart of turpentine. Mix in a jug or can, set in a warm place, and shake often. When the gums are dissolved, add one half pound of drop-black ground in oil, and four ounces of boiled linseed-oil. Take off all rust from the iron with sandpaper and kerosene. If the paint works too thick, add turpentine; if too thin, use more drop-black. Have the gums powdered, then they will dissolve quicker. This paint should dry with a gloss.

When painting machinery, use a double-thick, chiseled flat brush two and one half inches wide. The red above described is good for farm-wagons, is an excellent paint for barns, and looks especially well when trimmed with white. V. B. GRINNELL.

Gardening

By T. GREINER

INTENSIVE GARDENING means planting in and for succession. There is plenty of opportunity for that kind of gardening at the present time.

AMONG THE CROPS which I start from seed early in August are flat turnips (the strap-leaf sorts), winter radish, ordinary radish, kale, spinach, onions, etc.

A MELON FOR NORTHERN LOCATIONS.—A reader asks me what melon she could plant with any hope of getting a crop of ripe ones in her location, where the summers are short. I know of none that is earlier than Emerald Gem, and none that is of higher quality. I planted some as late as July 1st, and expect to get them ripe. The soil, however, has much to do with the quality of muskmelons and watermelons. It seems that the more sand there is in the soil, the sweeter and richer are the melons. But the Emerald Gem, if well grown and well ripened, is good anyway.

WEEDS OR VEGETABLES?—We have the choice. As such vegetables as early potatoes, early peas, early cabbages, beets, lettuce, cresses, set-onions, etc., mature at this time, the vacant spaces are speedily taken up with weeds. Not one gardener in ten would dig the ground over just for the sake of killing the weeds. I want to make use of the space for other crops—radishes, celery, spinach, late cabbages, etc.—and the preparation of the soil for them destroys the weeds. I choose to grow vegetables, and avoid the other alternative—weeds. Thus the garden looks attractive, and is useful, besides, during the entire summer and fall.

CABBAGES FOR QUALITY.—J. W. L., a reader in West Chazy, N. Y., asks whether the Danish Ballhead is a good table-cabbage, and whether the red varieties are as good for table use as white ones. The market demands the Ballhead, and cabbage-growers in this vicinity who make a business of growing winter cabbage plant no other. For myself I have never considered it to be of particularly good quality. This year I have entirely rejected it, planting Early Winningstadt (plants grow rather late), Surehead, Lupton and Drumhead Savoy, the latter probably the cabbage of highest quality for culinary purposes. I like to have at least a few heads of Mammoth Red Rock, or some other red sort, for salad purposes, more on account of color than of particularly high quality.

MANAGING THE BEAN-WEEVIL.—Mrs. Joe T. Tyler, a subscriber in Alabama, gives the following as her method of keeping seed-beans free from the weevil. By the way, this weevil is even worse than the pea-weevil. I have seen them live and propagate during the best part of two years in a bag containing seed-beans, leaving finally nothing but bean-skins and dust. The subscriber says: "Turpentine will run the weevils out, and keep them out. I put my seed-beans in paste-board boxes or glass jars, saturate a flannel cloth with turpentine, and put that on top. The weevil will get out, and stay out. I keep my field-peas free from the pea-weevil in the same way, only putting them up in barrels. A cloth six inches square with a little turpentine on it will protect a three-bushel barrel."

FINE LETTUCE.—In a season such as that of this spring and early summer—cool and wet, but especially wet—anybody can grow lettuce that is the acme of perfection in tenderness and brittleness. Our seedsmen catalogue a large number of varieties, some of them under different names. When the season is right, like the present one, you may take any variety and have fine lettuce. I had Forty Days lettuce this year for my earliest supply. It does not grow to mammoth size, but it grows quickly and makes nice solid heads in a very short space of time. Prizehead, with its large reddish leaves and loose heads, is as good as ever for an early sort—and there is a whole list of larger cabbage-heading sorts that are good and reliable, and remain long in table condition before making an effort at seed-production. Maximus is one of these on my grounds. So is the New Rosette.

HOW TO GROW LETTUCE.—I still adhere to my old and favorite plan of growing lettuce for home use by sowing seed in drills and thinning the plants—at first leaving them a little thickly, say a plant every two or three inches, and gradually thinning still more severely as the plants have formed nice little heads. In theory every other plant is thus taken out gradually, as wanted for the table, leaving the remaining ones at first five or six inches, and finally ten to twelve inches, apart. In practice I don't adhere to so much strict regularity. The lettuce finally makes mammoth plants—regular cabbage-heads—and as I have plenty of them, I reject all the outer leaves, and use only the nicely blanched, tender inner ones. They are delicious, and relished by my family served in various ways.

LIMA BEANS.—Usually I find it a rather easy task to grow a full supply of Lima beans. All that is necessary is to select a warm, rich soil in full exposure, and to plant the beans in a row, like any other beans, and give them some trellis or other support. This year, owing to cold, wet weather in spring, or possibly to the work of slugs, the plants did not appear to thrive at first, and many died outright. Those that were left, however, picked up wonderfully with the advent of warmer weather toward the end of June, and some had almost reached the top wire of the trellis, five feet above the ground. Yet there were many gaps in the row—larger gaps than I like to see—so on July 1st I replanted the gaps, and now, ten days later, the plants, stimulated by the hot weather and a sufficiency of moisture, are already beginning to throw out runners. No doubt I shall have plenty of nice Limas on these late plants, and they will come handy when the earlier-planted ones run short.

STRING-BEANS.—During their season of freshness I like an occasional mess of good string-beans, such as Davis' Kidney Wax, when the pods are picked in good season—that is, before the beans get large in them. I have never yet learned to think much of the canned snap-bean. Some people, however, think that a canned snap-bean is better than no bean. Mrs. F. E., of Linn County, Iowa, for instance, asks "how string-beans may be canned to be as good as fresh." That seems to be asking a good deal, and I believe it is an impossibility. Probably Mrs. Rorer knows as much as anybody about canning string-beans, and I will give her recipe, without giving the least guarantee, however, that the canned article will even come anywhere near being as good as when fresh. Mrs. Rorer says: "String the beans, and cut them in several pieces; throw into boiling water, and boil rapidly fifteen minutes. Have the jars ready filled with warm water to slightly heat. Empty the jars, and fill quickly with the beans, then close, and handle the jars in the same manner as you would when canning fruit."

EARLY TOMATOES NEED HIGH CULTURE.—Our northeast New York friend remarks that the early tomatoes do not yield well, and wonders whether they should be manured. Most of the early sorts of the present day, like those of the Ruby type or the Earliana, are free fruit-setters. The Earliana often sets so much that it kills itself by overbearing. The only way to get these sorts to do their best is by planting them on very rich soil, or by giving them nitrogenous manure enough to produce a large amount of foliage. I have my Earliana and some other early sorts on the richest spot in the garden—in fact, one manured almost to excess. I have not the least fear, from the appearance of the plants at this date, that they will not have foliage enough to carry the fruit, that is set in great abundance, also, to full development and maturity. If I had planted the Matchless or Stone or Success, or any other of the ordinary main-crop tomatoes which are liable to make much foliage even on soil of medium fertility, I don't think I would get much fruit—nothing but stalk and leaf, and a great mass of that. This very rich soil just gives the needed full amount of foliage to the Earliana, and the fruit is large, and I expect will be of fine quality, also.

KEEPING POTATOES FROM SPROUTING.—A Wyoming reader asks me to furnish him a recipe (published in these columns years ago, he says) "for dipping potatoes to prevent sprouting." He says he would gladly pay for a reply by mail. I think I would gladly pay a good price for a recipe how to keep potatoes from sprouting, even if the treatment would spoil them for seed. The production of sprouts in cellar storage greatly reduces the value of potatoes for table use, and still I have not yet found a safe and sure method of preventing the growth of those long sprouts, unless possibly to a limited extent by frequently shaking the potatoes around in a half-filled bag, or by emptying them often from one crate into another—in other words, by frequently moving, jarring or shaking them about. A recipe for a cheap "dip" that will surely prevent sprouting, even if the germs are killed thereby, so long as the potatoes are not injured for eating, would be worth a good deal of money to potato-growers and grocers. A dip is used for seed-potatoes, but this (corrosive sublimate being generally used) has a different purpose—namely, to kill the scab fungus with which the seed-potato may be infected.

Fruit-Growing

By S. B. GREEN

CIDER-VINEGAR

Vinegar made from pure cider or grape-wine is the best and most wholesome form of this popular condiment.

The fabrication of pure cider-vinegar is a very simple process, and one which any one who can grow or buy a few bushels of apples may successfully carry on.

In the production of pure cider-vinegar four factors are concerned. These are pure cider; the presence of the acetic acid ferment, "Bacillus aceti," free ingress of air, and the temperature of the air or room not less than seventy degrees, nor more than eighty-five degrees, Fahrenheit.

As vinegar is ordinarily made on the farm, it is simply allowed to ferment spontaneously in unbunged barrels in a cellar whose temperature during the fall months, when cider is usually made, is pretty constant at about sixty degrees Fahrenheit. The acetic acid ferment does not grow actively at any temperature below seventy degrees Fahrenheit, hence the relatively long period it requires to produce good vinegar in farm cellars. Although the acetic ferment requires a comparatively high temperature, there are many other ferments which can grow at lower temperatures. These generally get into the farmer's vinegar-barrels and make trouble. The following-described process will enable any one to make a fine vinegar with the least possible waste of time and material:

Take sound barrels or any suitably sized vessels of wood, earthenware or glass—never iron, copper or tin. Clean thoroughly, and scald. Fill not more than half full with the cider stock, which should have fermented at least one month. To this add one fourth its volume of old vinegar. This is a very necessary part of the process, since the vinegar restrains the growth of chance ferments which abound in the air, and at the same time it favors the true acetic acid ferment. Next add to the liquid a little "mother of vinegar." If this latter is not at hand, a fairly pure culture may be made by exposing in a shallow, uncovered crock or wooden pail a mixture of one half old vinegar and one half hard cider. The room where this is exposed should have a temperature of about eighty degrees Fahrenheit. In three or four days the surface should become covered with a gelatinous pellicle, or cap. This is the "mother of vinegar." A little of this care-

fully removed with a wooden spoon or a stick should be laid gently upon the surface of the cider prepared as above described. Do not stir it in. The vinegar ferment grows only at the surface. In three days the cap should have spread entirely over the fermenting cider. Do not break this cap thereafter so long as the fermentation continues. If the temperature is right the fermentation should be completed in from four to six weeks. The vinegar should then be drawn off, strained through thick white flannel, and corked or bunged tightly, and kept in a cool place until wanted for consumption. If the vinegar remains turbid after ten days, stir into a barrel one pint of a solution of one half pound of isinglass in one quart of water. As soon as settled, rack off, and store in tight vessels. Usually no fining of vinegar is needed. No pure cider-vinegar will keep long in vessels exposed to the air at a temperature above sixty degrees Fahrenheit. "Vinegar eels" are sometimes troublesome in vinegar-barrels. To remove these, heat the vinegar scalding-hot, but do not boil. When cool, strain through clean flannel, and the "eels" will be removed.

In making cider-vinegar, the strength of the product or per cent by weight of the acetic acid in it will be a little less than the per cent by weight of the alcohol in the cider. A little of the alcohol remains unfermented, and serves to give the desired flavor or bouquet to the vinegar.

There is another, and even more rapid, method of making cider-vinegar. In this method the fermented cider, or "hard cider," is run through a box of beechwood shavings wetted with old vinegar. By this method good vinegar may be made in twenty-four hours. But the process as first described makes better vinegar, and is preferable for farm use.—Bulletin No. 182 of the North Carolina Experiment Station.

HOME MANUFACTURE OF UNFERMENTED GRAPE-JUICE

Use only clean, sound, well-ripened but not over-ripe grapes. If an ordinary cider-mill is at hand, it may be used for crushing and pressing, or the grapes may be crushed and pressed with the hands. If a light-colored juice is desired, put the crushed grapes in a cleanly washed cloth sack, and tie up. Then either hang up securely and twist it, or let two persons take hold, one on each end of the sack, and twist until the greater part of the juice is expressed. Then gradually heat the juice in a double boiler, or a large stone jar in a pan of hot water, so that the juice does not come in direct contact with the fire, at a temperature of one hundred and eighty degrees Fahrenheit to two hundred degrees Fahrenheit; never above two hundred degrees Fahrenheit. It is best to use a thermometer, but if there is none at hand, heat the juice until it steams, but do not allow it to boil. Put it in a glass or enameled vessel to settle for twenty-four hours; carefully drain the juice from the sediment, and run it through several thicknesses of clean flannel, or a conic filter made from woolen cloth or felt may be used. This filter is fixed to a hoop of iron, which can be suspended wherever necessary. After this fill into clean bottles. Do not fill entirely, but leave room for the liquid to expand when again heated. Fit a thin board over the bottom of an ordinary wash-boiler, set the filled bottles (ordinary glass fruit-jars are just as good) in it, fill in with water around the bottles to within about an inch of the tops, and gradually heat until it is about to simmer. Then take the bottles out, and cork or seal immediately. It is a good idea to take the further precaution of sealing the corks over with sealing-wax or paraffin to prevent mold-germs from entering through the corks. Should it be desired to make a red juice, heat the crushed grapes to not above two hundred degrees Fahrenheit, strain through a clean cloth or drip-bag (no pressure should be used), set away to cool and settle, and proceed the same as with light-colored juice. Many people do not even go to the trouble of letting the juice settle after straining it, but reheat and seal it up immediately, simply setting the vessels away in a cool place in an upright position where they will be undisturbed. The juice is thus allowed to settle, and when wanted for use the clear juice is simply taken off the sediment. Any one who is familiar with the process of canning fruit can also preserve grape-juice, for the principles involved in both are identical.

One of the leading defects so far found in unfermented juice is that much of it is not clear, a condition which very much detracts from its otherwise attractive appearance and due to two causes already alluded to. Either the final sterilization in bottles has been at a higher temperature than the preceding one, or the juice has not been properly filtered or has not been filtered at all. In other cases the juice has been sterilized at such a high temperature that it has a disagreeable scorched taste. It should be remembered that attempts to sterilize at a temperature above one hundred and ninety-five degrees Fahrenheit are dangerous, so far as the flavor of the finished product is concerned.

Another serious mistake is sometimes made by putting the juice into bottles so large that much of it becomes spoiled before it is used after the bottles are opened. Unfermented grape-juice properly made and bottled will keep indefinitely if it is not exposed to the atmosphere or mold-germs; but when a bottle is once opened, it should, like canned goods, be used as soon as possible, to keep it from spoiling.

The uses are indeed many. It is used in sickness, convalescence and good health; as a preventive, restorative and cure; by the young, by persons in the prime of life and by those in old age. It is used in churches for sacramental purposes; at soda-fountains as a cool and refreshing drink; in homes, at hotels and at restaurants as a food, as a beverage, as a dessert and in many other ways. When people become accustomed to it they rarely give it up. When properly prepared, unfermented grape-juice can be made to please the eye by its color and attractive appearance, the sense of smell by its aroma or fragrance, the palate by its pleasant flavor.

It is food and drink, refreshment and nourishment all in one. Not a by-product, but made from fruit going to waste—one of the blessings given us, that some are too careless, others too ignorant, to make use of.—George C. Husmann, in Farmers' Bulletin No. 175 of the United States Department of Agriculture.

SKIM-MILK

SKIM-MILK is just as valuable for fowls as that which contains the butter-fat, provided ground grain is added. All the bone and muscle producing elements are left in the skim-milk, and the butter-fat removed is of but little value to poultry. If a cream-separator is used, the milk should be fed while warm and fresh, and not when sour, although fresh buttermilk is excellent food for fowls.

PLEASURE IN KEEPING PURE BREEDS

There is no argument that can possibly be used in favor of losing valuable time and wasting energy in keeping common dunghill fowls. It costs no more to have good birds than bad ones. One will take more pride in good poultry than in poor stock, and will be much more inclined to make the business a success if proud of the birds, and will be delighted to show them to visitors or fanciers of poultry. Keep pure stock, and the best results should follow.

ESSENTIALS IN FOODS

There is no single food which is perfect, or which contains all the desirable elements necessary for production, for which reason corn as an exclusive diet will not give satisfactory results. There is but little lime in wheat or corn, and as lime is essential in the production of bone it is evident that young chicks will make but little growth when the larger portion of their food consists of corn and corn-meal. If clover, either green or cured, or skim-milk is fed with corn, more benefit will be derived from the combination than from the grain only. Animal-food should also be allowed.

FLOORS AND RATS

If the poultry-house is in such condition as to allow rats to run under the floor, the farmer may as well give up the poultry business. They are worse than any disease the fowls may have. When the house is built it is very easy to put wire netting, such as is used for the small chicks, under the floors. If you have not done this, another easy way to keep out rats is to put in a cement floor. It may cost a little more than fixing up the wooden floor, but it is safe against rats, and a wooden floor is not. If wire mesh is put in with the cement when the floor is laid it will be all the better.

SUMMER PRECAUTIONS

One must be careful in adding extra fowls to the flock at this season of the year, as it is difficult to detect disease without a close examination, which is seldom made by those who procure fowls to add to their flocks. Nor should the vigilance be confined to the individual birds, but the entire flock of which the birds are members should be carefully looked after, as disease in the flock of some neighbor may be carried elsewhere by apparently healthy birds taken from such flock. Roup is often present in an incipient stage in a flock, and makes its appearance under the first favorable circumstances.

GRAVEL AND SHELLS

Gravel is valueless unless it is sharp. As soon as the fowl rounds off a sharp substance in the gizzard, it is voided; hence, hens prefer sharp shells to round gravel. The reason they eat more shells—or more sharp grit of any kind—when they are laying is because more food is then required, and consequently there is better digestion. If an egg has specks or flakes of lime on the shell it does not imply that it is due to feeding oyster-shells, as the same thing occurs when no oyster-shells are given. It may also be due to the food. As a rule such hens are fat. Some kinds of gravel are of limestone and of exactly the same composition as oyster-shells.

THE HEN-MITE PROBLEM

It would be interesting to get a correct estimate of the number of millions of dollars' damage done to the poultry industry in America every year by means of the little "insignificant" hen-mite, or red spider. Any method, no matter how expensive, of getting this bloodthirsty little animal under control would mean a large gain, a material increase in profits, to every poultry-keeper who makes use of it. The mite saps the vitality of the majority of fowls in America to such an extent that not only the egg-yields are largely decreased, the growth of little chicks retarded, but fowls are often actually killed by mite-attacks, most frequently perhaps while sitting on the nest. In short, the fight against the mite is one of the foremost tasks every poultry-owner has to accomplish. We have advised the free use of kerosene, sprayed all over the perches, the nests and the whole interior of the hen-house. Kerosene, indeed, does wonders when thus used. Some

Poultry-Raising

By P. H. JACOBS

expert recommends the use of boiling water as cheaper and even more effective. This may be true. We can see no reason why boiling water poured freely over the roosts, the floor, the nests—in short, everywhere inside the hen-house—should not clear the pest out as quickly and thoroughly as anything yet recommended.—The Practical Farmer.

THE PREFERRED BREEDS

Poultry-breeders have several times endeavored to settle the question as to which breed of poultry is the best for general purposes. The Brahmans, Plymouth Rocks, Wyandottes, Leghorns, Langshans and Houdans have been experimented with, not only for egg-production, but also for market purposes. The majority of breeders prefer the breeds that grow to a large size, mature somewhat early, lay until late in the season, and which can endure a cold climate well. The chicks should grow very fast, be compact, and realize the highest market prices for quality. Probably no breed can comply with all these requirements. For one who wishes a breed that lays, but does not sit, the Leghorns are excellent. For one who wishes a good breed of sitters, the Cochins are profitable. He who wishes a beautiful breed, so far as plumage is concerned, can select either the Hamburgs or Polish, as there are several varieties of each. If pets only are preferred, the Bantams are useful. Should a quick-growing breed for market purposes be wanted, the Plymouth Rocks rank high. Circumstances determine which is best.

CHICK-CAKE

The recipe for the chick-cake which we used to feed to young chicks when we desired to secure rapid growth, and which in such cases we still make use of, calls for about equal parts of wheat bran, middlings, corn-meal, oatmeal and meat-meal, or in the absence of the latter, some fresh-cut green bone and meat, or any substitute for it. A little saleratus is worked up into this mixture, when it is stirred up with sour milk or butter-

sels may be hung on the partition, so that both birds may use them in common. If out of sight of their old mates it will not take more than two or three days for them to unite. The movable slat can then be taken away, and if the mating is permanent they may be turned into the loft to find a nest.

F. A. H., Elmwood, Mass., writes: "You say, 'Coarse, dry sand makes a good floor-cover. Coarse pine sawdust is liked by some.' One of my neighbors used pine sawdust, and was soon overrun with fleas. He now uses cedar sawdust, and has not been troubled with them since putting it on."

When the little pests abound, spread air-slaked lime over the floor before putting on the sawdust, even if it be cedar.

Pigeons at liberty may, and do, eat new wheat, but it is much safer, for the sake of the health of the squabs, to feed old grain for two months yet to birds in confinement.

A writer on pigeons says: "Never throw grain on the floor of the loft or fly; put it in long troughs." Our custom was to always feed all grain on the ground in the fly, at least whenever the ground was free from snow and reasonably dry. This we did three times a day, and we fed only what the birds would eat up quickly with a relish. We fed also at regular hours. This ration was a mixture of a small-grained whole corn, wheat and buckwheat. We kept in self-feeding hoppers a mixture of equal parts of corn-meal and wheat bran. If any of the birds missed the meal of whole grain, or if their appetites were not fully satisfied, or if they wanted a lunch between meals, the hopper lunch-counter was always open to customers. This method proved successful in maintaining the health of the old birds and in rearing large, fat squabs. It is said nothing succeeds like success.

A large, roomy outside fly is a partial compensation for a crowded loft.

Have plenty of perches in the fly, but let them be so placed as not to obstruct the flight of the birds.—Farm Journal.

INQUIRIES ANSWERED

GREEN FOOD.—E. J., Bowling Green, Va., asks "which of the green foods should be preferred for fowls in con-



THE PRIDE OF THE YARD

milk into a soft dough, and then baked in a hot oven until thoroughly done. This makes an excellent cake which chicks greatly relish, and on which they thrive like weeds. We usually moisten it with sweet skim-milk, or water when milk is not to be had, and feed it right along, often without change, for some days. Whole wheat, however, should be given occasionally, as the change will be of benefit. This cake we have also found to agree first-rate with turkey-chicks, and it seems to be a safe food for fowls generally.—The Practical Farmer.

IN THE PIGEON-LOFT

There are bullies and brutes in the pigeon as well as in the human family. A male pigeon that is disposed to make himself a nuisance in fighting other old birds and killing squabs might as well be removed from the loft. If this is not practical, clip his wings and provide a nest for the pair on the floor.

For a mating-pen get a box and put perpendicular slats on the front and through the middle. It should be large enough to make each apartment twelve or fifteen inches square, and one of the slats, or dowels, in the partition should be movable. The food and water ves-

finement." A variety should be given, but white clover will be found equal to any other green food for poultry.

YOUNG TURKEYS.—S. R. E., Lima, Ohio, requests information regarding "lameness of young turkeys, which are otherwise apparently well." No information regarding management was sent, but it is probable that the turkeys are made lame by alighting from a high roost every morning.

LOSS OF GOSLINGS.—N. R. M., Hancock, Md., complains that "his goslings died a few days after being hatched. They had access to a pond, and were hatched early in the year." It is probable that the water was too cold, and they were chilled. Very cold water is usually fatal to goslings under such conditions.

DARK-EGG BREEDS.—J. M. D., Doylestown, Pa., desires to know "of some breed that lays uniformly dark eggs." While some breeds, such as Cochins and Brahmans, do not lay eggs of strictly dark color, yet they approach the desideratum in that respect. There is probably no uniformity in the eggs of any breed which is classified as "dark-egg" layers. Even two sisters will not always lay eggs of the same color.

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STOCK IN FLY-TIME

THE direct loss occasioned by flies and other insect pests is too seldom considered by many dairymen and stock-raisers. Many of these pests propagate their kind by depositing their eggs in manure. Thus the increase of insects is ordinarily about in proportion to the number of animals kept. Of course, it is impossible to entirely exterminate these pests, but some precautions, both in regard to protecting the animals and in keeping their quarters well cleaned and sanitary, will result in a pronounced gain in the comfort, thrift and profit of the stock.

Some of the home-made and patent insect "scare-alls" have considerable efficiency for a short space of time after application, but the tendency is to make use of them only spasmodically, while the following recommendations are valuable in more ways than one, and are more likely to be given systematic attention:

The first precaution should be to allow no manure to accumulate in the stables, and to keep in use sufficient absorbents, litter and deodorizers to keep the stables sweet and wholesome, which is impossible where the flooring allows of leakage and accumulations of filth and reeking gases beneath it. The yards and lanes leading to the stables will also soon become a breeding-place for myriads of flies unless kept clean and scraped frequently. The saving in fertilizers from this source is an item well worth the necessary labor expended.

Where the number of stock kept is not too large, it will be found profitable to arrange the stables or sheds with screened and darkened windows and openings, where the stock can go at will for rest and protection during the heat of the day. The colts, and horses when not in use, will especially appreciate and profit by such provision when the botflies and other insect torments make many of the daylight hours a worriment and gain and growth an impossibility.

Where large dairies are kept, the loss resulting from diminished milk-yield is seriously felt, and the protection of stock is a much more difficult problem. After considerable experience, the writer is convinced that it is profitable to systematically stable the dairy-animals about six hours daily when the flies are most annoying, giving a feed of green cut fodder, or ensilage provided especially for that purpose. During the combined annoyance of heat and insect pests cows are much like a goodly portion of humanity in their aversion to exertion. They will frequently lie still fighting flies, and go hungry instead of grazing. Especially is this true when pastures are dried up and are uninviting. Early milking—hours morning and evening, with the animals taken up and stabled from about noon until evening milking-time, will not materially increase the dairyman's labor after the feed-supply is provided for, and will afford a most gratifying surprise in the improved and extended yield from his animals.

Hogs can best be protected by a clean mud-wallow—not a filth-hole, as described in a former paper—and sheep may be kept practically free from their particular fly pest by a well-tarred salt-trough.

B. F. W. THORPE.

THE COW THAT FILLS THE POCKETBOOK

It is not always the cow that gives the richest milk that fills the pocketbook. A homely farmer put this truth to me the other day in bright if homely words. In answer to the statement that a certain lot of cows gave milk so rich that sixteen pounds of it would make a pound of butter, he said, "Yes, and it would take sixteen of them to make the pound of butter."

The fact is, quality is not the only thing we must seek in the cow. There must be quantity as well. Suppose we figure on this a little. Here is a cow that gives milk, sixteen pounds of which will make a pound of butter. In a day we will say she gives the sixteen pounds. This butter is sold at say twenty-five cents a pound. This cow does three hundred days in the year. At the end of the season she has to her credit, if she can maintain this record and the price remains the same, three hundred pounds of butter, worth seventy-five dollars. Here is another cow that gives milk requiring twenty pounds for a pound of butter. Every day for the three hundred days she gives twenty-five pounds of milk, making one and one fourth pounds of butter. When the season ends she has three hundred and seventy-five pounds of butter, worth ninety-three dollars and seventy-five cents, to show for her work. Which is the better cow?

But do not decide too hastily. What about the cost of producing this milk in both cases? Do you know that? If you do, then you can intelligently answer the question which cow to choose. And the only way of determining this is to carefully measure out the feed given to each cow. This we need not do for the entire season. We may weigh the feed given for a week, and then by keeping the ration just about so, estimate very closely the remainder of the season. It is reasonable to suppose that the cow which gives the greater quantity of milk will require a larger ration daily than the one which gives the smaller mess. Let us roughly estimate that the expense of maintaining the large cow is fifteen cents a day, while that of the other is twelve cents. Three hundred days gives us a total expense of forty-five dollars for the cow giving the most milk, against thirty-six dollars for the other. Deducting the cost of production from the total receipts, we have forty-eight dollars and seventy-five cents left for the low-test cow, as against thirty-nine dollars for the high-test cow—a margin of nine dollars and seventy-five cents in favor of the former.

So it is evident that we cannot base a fair estimate of the value of a cow upon the richness of her milk. More than that must be taken into consideration. When we all get so that we will have the patience to watch our cows, not a single day, but all the year through, and keep accurate records of all we do for the cow and all she does for us, we may be better prepared to say which of our cows is really the best.

E. L. VINCENT.

THE YOUNG PIGS

When the pigs are three weeks old they will begin to eat other food besides their mother's milk. To furnish them this, I have a very shallow trough, easy for them to reach and out of reach of the dam, and at this light-lunch counter I provide them quite a variety—corn in the grain, corn-meal, wheat middlings, ground oats and skim-milk. I do not furnish these all at once, of course, but vary them according to their cost. I try always to have skim-milk and corn-meal for them. The quantity is limited at first, and gradually increased to such amount as is eaten up during the day. They thus early develop the habit of eating, and the grain and milk fed in addition to the milk of the dam gives them such a start toward profitable growing that they keep it up to the end. This makes it possible for me to keep the sow in good flesh and "heart" without depriving the pigs of needed nourishment.

It is a common thing to see a sow with a family of clamorous pigs, that have not thrived to the extent they would if the feed had been put in them, grow so thin suckling her family that she is verily yielding up her life to the demands of motherhood, which is of course a characteristically motherly thing to do, and embodies a very nice sentiment, but it illustrates no evidence of a generous appreciation of the motherly abnegation by her owner or feeder. True, we are not raising swine sentimentally, but we are trying to do it profitably, and may often miss our profit by our stinginess.

The pig's stomach is small, and needs filling often. For a while after weaning I feed four times a day, and as the pigs increase in size I feed three times a day, all they will eat, and no more. From this time on the bill of fare is covered principally by corn and milk. If the corn gets too dry and hard, I soak it. I feed it heavily ground, also. I try to keep them growing and fat, so if I have a good market I have hogs to meet it. By having them fat enough for market at five or six months old, if the market does not suit me and I have a speculative notion that pork will be higher in a month or so, I can keep them that much longer, and still have them within the limit of most profitable feeding. It may be needless to add that the market does not always do what I think it will. Bearing this in mind, I generally sell when my pigs are ready.

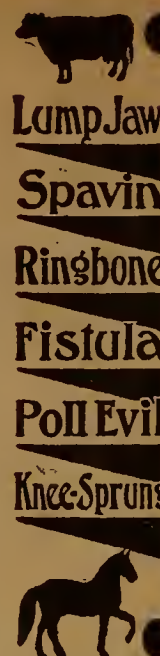
W. F. McSPARRAN.

HORSE TALK

Ground corn and oats with some wheat middlings and oil-meal is a good combination for slow, heavy work.

There should be about a peck of cut hay fed with the grain. A little long hay may be given at night for them to eat at will.

Overfeeding with hay is practised by most farmers. It is a waste of hay and exhausts the digestive system and results in staring coats and labored breathing.—*Farm Journal.*




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Live Stock and Dairy

COW-CATCHERS

THE average cow is kept at a loss. The census figures show that her yearly production of butter is one hundred and thirty pounds. The director of farmers' institutes of Pennsylvania, whom every one knows is an authority on milking, says the average in that state is one hundred and forty pounds, the ten pounds in excess of the general average being no doubt due to the superior dairy instruction the farmers have received. Counting the cost of her feed, the labor in milking and feeding her, interest on the investment in her, and the percentage of her deterioration, it does not require much arithmetic to show that the one-hundred-and-forty-pound cow does not pay, and that the general average is not to be considered.

It does not require much arithmetic, but the average dairyman, who is generally in partnership with the average cow, does not want much arithmetic. There are many things about farming, as well as about other things of life, that the uncertainty of not knowing is preferable to actual knowledge.

Why keep the cow that is adding nothing to the credit side of the dairy account? I don't know. Milking, feeding, watering cows and cleaning stables are not jobs generally regarded on the farm as things so pleasurable that the question of profit need not be considered. Moreover, the average cow with her deficit is taking the place and the time of the good cow that would make a surplus.

We may reasonably conclude that the average cow is the general-purpose cow or the dual-purpose cow that plastic men keep in order that it may be fulfilled that which is written concerning her existence. Their Jekyll-and-Hyde characteristics consist in their performance of making work and manure—things quite necessary on all well-regulated farms.

As a general proposition, a cow must make two hundred pounds of butter to pay her way. This figure of course is in a stratum far above the average cow of the one-hundred-and-thirty-pounds record. The man and his wife who are milking and caring for twenty cows,

be the wage of the son who is looking toward, and keep him at home. Such a procedure will of course play havoc with the personal notion that beef-and-butter cows are possible in actual dairying for profit, but it will not for many a long year blight the annual crop of the dual-purpose champions.

W. F. McSPARRAN.

AS TO MORGAN HORSES

R. C. B., Albert Lea, Minn., writes: "Is the Morgan horse of anywhere near pure blood yet to be found, and if so, does he still possess the qualities of endurance claimed for him by those who were familiar with the breed in the East a generation ago? Such a horse, if he could be found, would be invaluable for road and general use on the roads in the Northwest. Who is the secretary of the Morgan Horse Association?"

Thanks to the efforts of some determined and level-headed men, there are still Morgans enough left to us to prevent the total extinction of the breed. Several men make a specialty of breeding these horses, and of later years have succeeded in piling up enough Morgan crosses one on another to make the animals very well bred in Morgan lines. It is probable that the Morgans were not nearly so far gone toward extinction as some folks imagined. They are long-lived, vigorous animals, and many a stallion strong in the blood of Justin Morgan is to-day doing active service at an age which means the death, or at least the impotence, of most other sorts. They were widely scattered, but when the devoted few undertook to find them, in order once more to exploit their merits, they were forthcoming, fortunately for America. Some of the breeders of Morgans can therefore supply young horses tracing to Justin Morgan on both sides of the house, and there are several strains all well worthy of the name. The Gold-dusts may be named as one of them, and the Herods and Bashaws; and all through Wisconsin, Michigan, northern Illinois and Minnesota there are to be found Morgan stallions which may be relied upon to reproduce the typical good qualities of the strain.

In a recent issue a letter from M. T. G. was presented, showing the descent of the Morgan horse, and from the facts



GLENDON—FOUR-YEAR-OLD GUERNSEY

making two hundred pounds of butter each, are doing a deal of work to make wages. Swap those twenty cows for twelve that will make two hundred and fifty pounds each, and let the wife tend the chickens, or the children, or even take a rest, and the extra six hundred pounds are net profit, and at twenty-five cents a pound will pay all the taxes and buy a new carpet or—but there will always be plenty of ways to dispose of the profits of the dairy.

Breed the two-hundred-and-fifty-pound dairy up to a three-hundred-pound one, and contrast its operation with the two-hundred-pound twenty-head old herd, and we have a home-made object-lesson illustrating the difference between productive and non-productive labor.

Add the best heifers selected from these three-hundred-pound cows to the herd until the numerical complement of twenty is reached again, and let their product

then submitted it is plainly seen that the blood of Justin Morgan, the founder of the family, must of necessity flow now in many channels. Some of the various sub-families into which the original tribe divided itself in the course of years have well-nigh disappeared in anything like purity, but here again it is a matter of degree. It will not be hard for the correspondent to obtain a young horse rich in Morgan blood.

"The Morgan Horse Register" is edited and conducted by Joseph Batell, Middlebury, Vt., to whom the thanks of all admirers of the Morgan horse are due for his untiring efforts in behalf of the breed. —The Breeder's Gazette.

ENERGY WASTED IS FEED LOST

Every time the cow slashes her head around at the flies, or even swatches her tail, she is using up energy that took feed to create, and will require more feed to replace. Therefore, spray the cows with a fly-discourager. W. F. McS.

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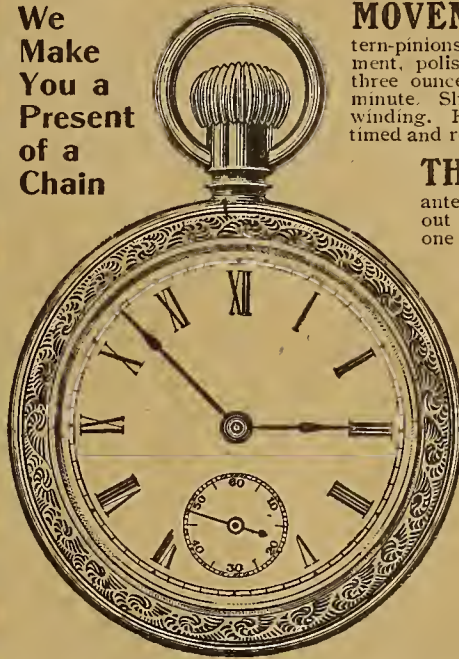
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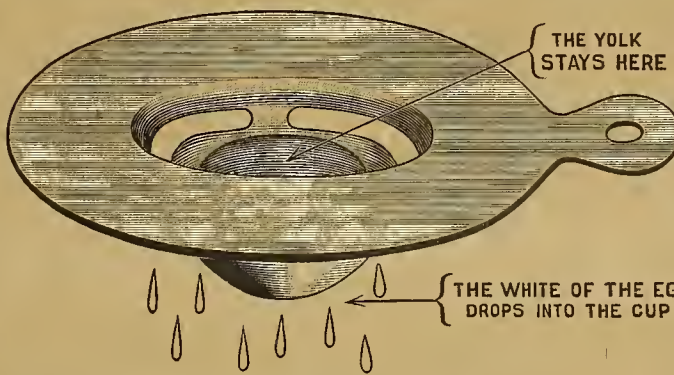
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The Grange

By MRS. MARY E. LEE

F. A. AKINS

THE world delights in a successful man. In his struggles, aspirations and triumphs each recognizes his own spirit, his own life as he would live it. From him inspiration is drawn; to him men look for the enunciation of their principles. "Nature seems to exist for the excellent," says Emerson. "The world is upheld by the veracity of good men; they make the earth wholesome."

Francis A. Akins stands for what is best in American life. Energetic, pushing, loyal to friends, just to opponents, ready to speak a cheering word or lend a helping hand, he draws friends to him as naturally as the needle points to the pole. For years he has been prominently identified with grange-work. With pen and voice, in public and private life, he has championed the farmers' interests.

Mr. Akins was born January 2, 1849, in Mayfield, Cuyahoga County, Ohio. His

got himself or friends a job? The lobbyist pits his dollars against the congressman's vote, knowing full well that "money talks." The congressman pits his influence against the votes of his constituency, playing for their votes. And men who pride themselves upon their righteousness and civic integrity, and are indignant because a sack of flour, a jug of whisky and a chunk of meat goes to John Smith for his vote, will unblushingly cast their ballot for the same man, saying at the same time, "I know he is a scoundrel, and will do anything to forward his own interests, but he got me a pension, my brother a post-office and my friend an inspectorship. Scoundrels are needed in office to beat the other scoundrels. I will stay by the bridge that carried me across." Such a voter will find no sympathy when his bridge is used to carry another voter across at his expense.

The question arises, Have we not as honest officials as we desire? If we have private interests at stake, do we not want culpable men in office who can be bought? Do we not demand of them that they vote not for what is the greatest good to the state, but for that which will directly benefit the voter, regardless of whether the issue is right or wrong? Is the moral value of cupidity in the booth different from that in the halls of Congress? Is it not a matter of degree only? Can we expect a high type of morality in the branch that springs from a tainted root? Let us demand in our officials a higher type of civic morality, and as a guarantee, vote for the most honest and capable men who can be induced to become candidates.

EDUCATION PAYS

The Portland "Board of Trade Journal" summarizes an address made by Hon. W. T. Haines before the Waterville (Maine) Board of Trade. The fact that education pays in dollars and cents is shown by the following:

"(1) That an uneducated child has one chance in one hundred and fifty thousand of attaining distinction as a factor in the world's progress.

"(2) That a common-school education will increase his chances nearly four times.

"(3) That a high-school training will increase the chances of the common-school boy twenty-three times, giving him eighty-seven times the chance of the uneducated.

"(4) That the college education increases the chance of the high-school boy nine times, giving him two hundred and nineteen times the chance of the common-school boy, and more than eight hundred times the chance of the untrained."

Not only does an education pay many fold in dollars and cents the time and money spent upon it, but it also pays in enjoyment of the best the world has to offer. He only can be said to live whose senses have been trained to quick perception of the beauties of Nature and the creation of man's genius and skill; whose conscience is alert and sensitive; whose will follows the dictates of his conscience, and whose body is the servant of his will; who can recognize the divinity of his own soul, and honor and love a like quality in others; who can readily distinguish between good and ill, true and false. He lives the best who serves best the various functions for which he was created—that of getting on in the world in a financial sense, reproducing his own species, and preparing it for carrying on the work he will sometime lay down, making himself of the most use to his contemporaries, drawing from Nature and Art inspiration and enlightenment, and developing the mental and physical parts of his nature in unison; in short, a complete, symmetrical development of body and soul. Unjust and merciless indeed is the parent who throws obstacles in the path of his child against the attainment of that culture that will enable it to live completely. He merits the universal contempt and condemnation he receives.

AN ETHICAL MATTER

How much better is he who votes for a known corruptionist than the corruptionist himself? What moral difference is there between a congressman who aids in forwarding or suppressing unjust legislation favorable or inimical to a favored industry, while prejudicial to the people at large, and the man who votes for him on the grounds that he has looked after the interests of his class or

THE OBSERVATORY

A good lecturer and a good library mean a progressive and influential grange.

Rest and recreation are as essential in a well-developed, symmetrical nature as arduous application.

What condition of affairs would be disclosed if other federal departments besides the postal were investigated?

IRRIGATING-DITCH

An Old Subscriber writes: "A. has an irrigating-ditch running through B.'s land. The ditch often breaks, causing damage to B.'s ditch. Can B. make A. fix his ditch so it will not cause him injury?"

I certainly think that B. can compel A. to keep his ditch in such condition that it will not cause any injury to B.'s land and ditch.

VOTING-AGE

M. J. P., Ohio, inquires: "How many days before my son is twenty-one years old will he be allowed to vote? He will be twenty-one the 16th of April next. Will he be allowed to vote three days before that date?"

By reason of the law not recognizing fractions of a day, it is considered by common-law writers that a person becomes of age on the day which precedes his twenty-first birthday.

COMPENSATION OF EXECUTORS

L. F. C., New York, asks: "Under the laws of the state of New York, what fee does one of two executors of a small estate receive, the estate consisting of both real and personal property—the property of a widow none of whose children are minors?"

The executors in New York are allowed five per cent on the first one thousand dollars, and two and one half per cent on additional sums, not amounting to more than ten thousand dollars.

DUNNING ON A POSTAL-CARD

J. B., Ohio, asks: "If I hold A.'s note, and I write to him on a postal-card that his note is due, and ask him to 'please come and settle,' is that against the law, and does it cancel the debt? Please give me the information by mail, and greatly oblige a subscriber."

Cannot give you an answer by mail without an inclosure of one dollar. The above card would surely not cancel the debt, neither am I of the opinion that it would come within prohibited matter of the United States mail.

WIDOW'S RIGHTS

E. V. D., Ohio, asks the following: "A man having real estate and money dies, leaving no will. He leaves a widow, but no children. What is the wife's share, and does she retain it only during her life?"

In Ohio the interest of a husband or wife in the real estate of his or her deceased consort differs in regard to whether the real estate has been inherited or purchased. In case of inherited real estate, the wife has a life estate where there are no children, and purchased real estate she gets absolutely. The personal property becomes hers absolutely.

INHERITANCE-TAX IN NEW YORK

J. B. S., Virginia, makes the following query: "A man dies, leaving two thousand dollars to each of his brothers and half-brothers, ten in number, all children of the same father. The executor claims that the law of the state of New York fixes the inheritance-tax at one per cent, but he says the state officials claim that it is five per cent on half brothers and sisters, and I would like to know if such is the law of the state of New York."

The correct answer to the above query

TO CURE POISON-OAK

Apply a fifty-per cent aqueous solution of ichthyol, using a camel's-hair brush, and making as black a stain as possible, and get it dry before exposing it to the friction of the clothes. This is recommended by Dr. C. E. Lewis in the New York "Medical Journal."

THE THERAPEUTIC ACTION OF BLUE ELECTRIC-LIGHT

M. Minier calls attention to the sedative and also anesthetic action of blue electric-light. He finds that under the influence of blue electric-light a granular surface becomes anemic, but becomes, on the contrary, congested under the influence of white light. Two minor surgical operations are reported where anesthesia of the parts was obtained first by exposure to blue electric-light. One involved the removal of a piece of glass, the other the placing of several sutures. Both made excellent recoveries.—Journal of Advanced Therapeutics.

THE PREVENTION OF JUVENILE SMOKING

Some particulars as to the great increase in the sale of cigarettes that has taken place in recent years may be of interest. A single wholesale firm of cigarette-manufacturers which formerly

The Family Lawyer

By JUDGE WM. M. ROCKEL

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involves the question whether the word "brother" in the statute would be held to include "half-brother." I rather think that this statute, as to exceptions, should be liberally construed, and that the word "brother" should be held to include "half-brother," and I would advise the executors not to pay the five per cent unless the courts decide otherwise.

WIDOW'S PORTION

J. M. P., Massachusetts, says: "By the laws of the state of Massachusetts, what portion of the real and personal property does a widow receive if there are children by a former wife? How long can she remain in the house, and will she be allowed the widow's dower?"

The wife has dower—that is, life estate—in one third of the real estate, and she gets one third of the personal property absolutely. She may remain in the house forty days, with full use of the furniture and surroundings. She is also entitled to some minor allowances.

DIVORCE

P. V. K. wants to know: "When a man or woman becomes insane, and is sent to the insane asylum for ten or more years, and is pronounced incurable, can a man marry again, or can he get a divorce in Kansas or any other state?"

Nelson on "Divorce and Separation," Section 651, says: "The Arkansas statute provides that a divorce may be granted 'where either party shall, subsequent to such marriage, have become permanently or incurably insane.' Such a cause for divorce has not been enacted in other states. The statute of Washington very wisely provides that 'the court may, in its discretion, grant a divorce in case of incurable chronic mania or dementia of either party having existed for a period of ten years.'"

SELLING OF LANDS DEVISED

L. G. C., New York, asks: "C., of New York State, has no children, but has one sister and several nephews and nieces. He and his wife jointly own real estate and personal property, with a mortgage debt on the land. Is a will valid by the husband to his wife bequeathing all his property to her during her natural life after paying all his debts, and the same being bequeathed after the decease of his wife to B., a minor, to have and to hold forever? Who can sell the land, pay the debts, and give a title for the land?"

Yes, such a will would be valid if properly executed. If it is necessary to sell the land to pay debts against the estate, it should be done by an administrator appointed by the surrogate court.

TRESPASSING ON LANDS OF ANOTHER

C. H. E., North Carolina, writes: "A. and B. have farms adjoining. A road runs parallel with the line between them, but entirely on A.'s side. On A.'s side the land is native forest, on B.'s side a cultivated field. A.'s land is lawfully posted. B.'s son, who has B.'s land

rented, and is of age and married, goes across this road onto A.'s land, and girdles timber without A.'s knowledge or consent, and also cuts down and destroys young trees. What relief has A. under the laws of North Carolina?"

B.'s son would certainly have no right to go onto A.'s land and in any manner take or destroy the timber, and if he did so he would be liable for damages. It is possible that under the laws of your state you might have him arrested for malicious destruction of property.

LIMITED COMPANIES

N. R., New York, puts the following query: "What does the word 'limited' signify after a company's name?—Must shares of stock and seals of corporations contain the name of the state in which the company is incorporated to be valid?—Would shares be all right if made out on the face, but not issued to any one on the back?—Is there any special form used by responsible stock-companies to make shares law-abiding and profit-sharing? If so, what are they?"

The word "limited" used after a company's name usually signifies that some of the partners or stockholders are limited to the amount they have invested or the stock they hold for any liability the company may have. Such companies are generally formed under special provisions of law, and are neither corporations nor partnerships, but are organized as the various statutes may provide.—No, I should think not.—Yes, I should think they would be.—I suppose they are special clauses, but you will have to consult the statute of your own state.

DIVORCE

A. W., Vermont, states her troubles as follows: "Can a woman secure a divorce in Ohio if she now lives in Vermont, and how long will she have to live in Ohio before she can secure a divorce? Her former home was in Ohio, and she has not resided in Vermont long enough to secure one. Her husband deserted her in cold-heartedness, leaving her with no money and not enough fire-wood for one day, the thermometer standing at thirty degrees below zero. They had no quarrel, or anything of that kind. The husband left, as near as can be found out, on account of his indebtedness, as he owed everybody that he could get anything of, and had everything under mortgage that he had, his wife knowing nothing about it until the sheriff came two days after her husband had left. It has been over four weeks since he left, and have heard nothing of him. His wife cannot stay here, as he left her with nothing to live on, and his place will be sold under mortgage. Can she get a divorce from such a man if she returns to her former home, as she does not want to stay here long enough to procure one?"

In Ohio and most other states a bona-fide residence of one year is required before a divorce can be secured, and this would be true no matter what the causes might be. It may be questionable whether a divorce could be secured in less than three years under the above statement of facts, that time being required for a divorce for wilful absence. It is questionable whether there is such gross cruelty in this case as would be sufficient to obtain a divorce before that time.

The Family Physician

By ROBERT B. HOUSE, M.D.

made and sold only a quarter of a million cigarettes a week now disposes of five million in the same period, and another wholesale firm which at one time had practically no business at all in this article is now manufacturing no fewer than thirty million cigarettes a week. Special machinery, it is said, has been devised to cope with the demands of the boy smoker. One firm alone employs fifty machines, and each machine turns out two hundred thousand cigarettes a day, the weekly output running into the millions.

Some striking illustrations have recently been given of the effects of cigarette-smoking upon schoolboys. In a public school of about five hundred pupils it was found that the boys were very much inferior to the girls in every way. It was also discovered that a large majority of the boys were habitual cigarette-smokers. An investigation was ordered, to ascertain exactly how far the smoking was to blame for the boys' inefficiency and low moral condition. Twenty boys who were known to not use tobacco in any form, drawn by lot, and twenty boys

known to be "cigarette-fiends," were closely observed for several months by ten teachers. The ages of the boys were from ten to seventeen, the average age being a little over fourteen. Of the twenty smokers, twelve had smoked more than a year, and some several years. All twenty boys used cigarettes, while some also used pipes and cigars occasionally. The following peculiarities were noticed in the smokers: Twelve of them had poor memories, and ten of the twelve were reported as very poor; only four had fair memories, and not one of the twenty boys had a good memory; twelve were in poor physical condition, six being subject to "sick spells," and were practically already physical wrecks; eight were reported as being in fair condition, but none was excellent.

Comparisons were made in Yale University between smokers and non-smokers for eight years. As compared with the smokers, the non-smokers gained twenty-four per cent in weight, thirty-seven per cent in height, forty-two per cent in girth and 8.36 cubic inches in lung-expansion. Attempts have been made by the legislatures in thirty-three states to grapple with the juvenile-smoking evil.—American Physician.

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THE BLUE GENTIAN

MANY of our wild and garden flowers have charming stories connected with either their name or their early history. Some of these stories deal with real persons or facts, while others are imaginative, bits of charming folk-lore of some old country.

There is a curious little story about the name of the gentian. We are all familiar with the species known as the fringed gentian. It blossoms late—in September and October—and the flowers are of the deepest, darkest blue. Bryan says it is

Blue, blue, as if the sky let fall
A flower from its cerulean wall.

Each blossom is a funnel-shaped corolla consisting of four fringed petals.

The story of the flower's name goes back to a time two hundred years before the birth of our Savior. The country directly east of the Adriatic Sea was known as Illyria, or Illyricum, and was ruled by King Gentius. This sovereign was daring enough to attack the Romans. While his army was in the field many of the soldiers fell ill with a form of malarial fever.

The forces of Gentius were hard pressed, and the few remedies used in such cases were not to be procured. The king was a student, being well versed in the rude medical lore of the time, so he selected a plant that grew in that vicinity, and ordered that the sick men be given an infusion of the root. This was done, and the invalids improved rapidly.

In honor of King Gentius the plant received the Latin name of "Gentiana," and the name came to be applied to all the species of this plant family. The particular plant used by Gentius was quite different from our fringed gentian, being much taller and having yellow flowers.

The king whose name is thus preserved met with a sad fate. His army was overpowered by the Romans, Illyria was annexed to the Roman Empire, and the proud king was taken a captive to Rome. There he was obliged to march with bare feet and head in the triumphal procession of his conqueror. In that time of sorrow and despair he little thought that centuries later his name, now applied to a flower, would be a familiar and well-loved word.

When Europeans came to America they found species of this plant growing here. The fringed gentian's botanical name is "Gentiana crinata," and its beauty has made it a general favorite with flower-lovers.

There are other American varieties of the gentian. The "closed gentian" gets its name from the shape of the corolla, which always looks like an unopened bud. On the Atlantic Coast grows still another species, known as "five-flowered gentian." HOPE DARING.

THE FARM GIRL

In many papers and magazines are found articles in favor of the farm boy. But what of the farm girl? It is true that more boys on the farms are deprived of education than girls, but I know of many instances where the girls have an equally hard furrow to plow. In many families the care for the person is wanting, probably because money is scarce, but I think with a little care the country lass can be made to look as sweet as the village cousins. Many people seem to think that because they live in the country they can go shabbily dressed, as "no one sees us, anyway." I know when girls have to perform labor which properly belongs to their brothers, such as milking, churning, chopping wood, and other "easy tasks," it is rather wearisome to keep neat, but it can be done.

Farm girls very often lack the charming manner of the village girls, yet there is no reason why they should. There are good books and papers to be had; clothing material is cheap, and neighbors are not so scattered as they used to be. If the farm woman could only teach her boys and girls ease, grace and self-forgetfulness, and give them all possible opportunities to mingle with other young people, what a great advantage it would be. Furthermore, parents should teach their boys and girls to help one another. If the girls must milk, let the boys chop the wood; if the girls must do chores, let the boys carry wash-water and help with the dishes. It would not harm the boys to know how to mend, and sew on buttons, and learn to cook, nor would it harm the girls to know how to perform various kinds of outside labor.

In many families the boys have more time to devote to study than their sisters, for when supper is over they can go and read and study, while to the sisters remain the tasks of milking and washing dishes, and many other things. Then people comment wonderingly at the ignorance of the farm girl! When the farm girl ventures to the city, or even to a village, she is scoffed at and mocked. Her garments are not up to date; her hands are coarse and red, and her features hard and sunburned. Should she enter a church or attend a public gathering, the "sisters and brothers" gather up their dresses and coats, and glide past her. They are so deadly afraid of "hay-seeds." A haughty, pitying glance is all the farm girl receives—a pity she would never ask for.

Why should not the farm boy and the farm girl be educated equally? Why not given the same opportunities? Why not lifted from drudgery, and helped to attain the highest spiritual and intellectual growth? I know many families cannot give their children all they would; but I also know that many do not do as much for their children as they could. Thinking—strong, healthy, deep and logical thinking—is what many of our farmers need. META R. BACHMANN.

THE SPEED OF A HOUSE-FLY

The common house-fly is not very rapid in its flight, but its wings make eight hundred beats a second, and send it through the air twenty-five feet, under ordinary circumstances, in that space of time. When the insect is alarmed it has been found that it increases its rate of speed to over one hundred and fifty feet a second. If it could continue such rapid flight for a mile in a straight line it would cover that distance in exactly thirty-three seconds.—American Cultivator.

Around the Fireside

IN AUGUST

Ada Melville Shaw



It makes me drowsy to sit and dream
Of the things

That swing

In August:

The apple-tree bough is swaying now
As my lassie perches and softly lurches,
And laughs at her true lover's pleading;
But I read the end, as the green branches bend,

Of the things

That swing

In August.

It makes me lonely to sit and watch

All the things

That swing

In August:

'Tis the hammock now, and two, I trow,
Watch the songsters perching above their lurching,
And one of them softly is wooing;
While I hush my sighs as my keen mother-eyes

Note the things

That swing

In August.

The hours grow late as I watch and wait

For the things

That swing

In August:

The sweet moments pass for lad and lass
As the gate's a-swinging and bright Hope singing
Her songs to the brave lover's hearing;
While I wait alone; in young days I have known

The dear things

That swing

In August.

I cannot stay one hurrying day,

Or the things

That swing

In August:

Round swung the year, bringing baby dear;
By her cradle-side, as days peacefully glide,
Croons grandmother, happily rocking;
As the low chair swings, the young mother-heart sings

Of the things

That swing

In August.



A FATHER'S VERDICT

What a delightful old man he was! He was out of active business, living on a very moderate income, in a simple but comfortable way, just a plain, cheerful life. All the people in the village and country round about knew him. Some of them called him affectionately by his first name. It took him a good while to walk up or down the street; he had to speak to so many people, young and old, rich and poor; to make so many inquiries about the health of the people; to send so many messages of cheer, and to scatter such a lot of sunshine as he went along. The Psalmist would have put him into a psalm if he had known him. He did write several psalms for just such people as this cheerful white-haired man. His children were no longer at home with him, though he was never quite unconscious of them. He told me that he knew all about those Scotch parents and their scholar son—the Ross parents and the Professor—in Maclaren's stories, but he, like them, would have scorned to boast.

He was speaking one day of a neighbor, a very rich man. This neighbor had just made a lot of money which he did not need, and then invested it so as to make more which he did not need. The neighbor had been telling him about his splendid investment, which had doubled his money in an incredibly short time. It was the talk of the small town, and there were many to envy the man who had struck it rich. It is ever so. Everything he touched turned to gold, and people called him "fortunate." So he was, within limits, though such fortune has to be understood and explained. My old friend did not envy his rich neighbor, nor scold about him; he was too wise for that. No sharp words ever escaped his lips. He also might have been rich. He knew it. He might have left to his sons many thousands. He knew that, also. He had chosen otherwise. Not a scholar himself, though a man of rare intellectual quality, he sent every son he had through college. His sons were

proud of him, and all their friends loved him, he was such a man. But when all the town was talking of splendid investments, and was thinking of oil and coal lands, he was heard to say with great firmness, and a smile as of one who knew, "I calculate that I know something about investments myself, having tried several kinds. And I judge that

an investment in Christian education just about beats them all. It pays big dividends, and pays them right along. They get better all the time. The markets do not affect them. I have tried it. Better put a thousand dollars into the making of a man than a good many thousands into the making of more thousands." And those who stood by remembered how the old man's son had been converted in a Christian college, and how he had gone as a missionary. And they were silent. The talk of money did not seem to belong in that atmosphere. They were thinking of their own boys and girls. "I give my verdict for Christian education," he said, moving away. That night in several homes there were councils and prayers while children slept, but the next morning for more than one boy and girl the door to the Christian college stood wide open.—Rev. Wm. F. McDowell, D.D., in the Pittsburg Christian Advocate.

JAPANESE FLOOR-COVERINGS

Among the many ideas which the Japanese have copied from Western customs, and then remodeled to suit themselves, is the covering of their floors with matting in a way peculiarly their own. The matting itself is of much the same structure as that seen here, and known as China matting, being perhaps a little thicker, and is stretched upon frames of wood two or three inches thick. Matting of an inferior quality is stretched over the lower part of the frame, while the space between the upper and lower mattings is filled in with shavings of straw. This kind of matting is well adapted to the habits of the Japanese, many of whom use no chairs. Where chairs are used, however, pieces of wood resembling sleigh-runners are nailed to the legs of the chairs, thus preventing a leg of the chair from piercing the much-prized matting. The standard size of a mat is three by six yards. The custom of using these mats is so general, that when building, the Japanese architect arranges the size of the rooms to fit the mats, and when renting a house the size of a room is stated as requiring one, two or three mats, as the case may be.—Modern Priscilla.

QUEER THINGS

A Massachusetts farmer drives a team of cows. India's population is three hundred million—one fifth of all the people in the world.

The first Union flag was unfurled on January 1, 1776, over the camp at Cambridge.

The first English hymn-book used in public worship was by Isaac Watts about 1715.

Three pairs of Siamese-twin fishes have been hatched at the New York Aquarium.

It takes the constant labor of sixty thousand people to make the matches used by mankind.

It is unlawful for a doctor in France to inherit property left to him by a deceased patient.

A single perfume-factory at Cannes uses three hundred thousand pounds of flower-petals in a year.

There was no graveyard in St. Louis before 1776. Previous to that the dead were buried in the neighborhood of the dwellings.

The number of irrigating ditches and canals in operation in the United States exceeds twenty thousand, and their combined length is not less than fifty thousand miles.—The Woman's Magazine.

SOME INTERESTING FACTS

Marconi wireless telegraph is being installed at the Italian embassy at Peking. While no recurrence of a siege like that of 1900 is expected, it will be well to be equipped with means for outside communication.

The speed-trials of the new Austrian second-class battleship "Arpod" prove her to be the fastest battleship in the world. Her maximum speed is 20.12 knots an hour, and she made an average of 19.65 in a six-hour run.

According to the statistics of the Department of Agriculture, the total area planted in cotton in the United States this season is twenty-eight million nine hundred and seven thousand acres, an increase of one million and twenty-nine thousand acres, or 3.7 per cent, over that planted last year.—The World's Events.

VALUE OF SMALL FISH

The value of small fish—goldfish and sunfish—in keeping ponds free of mosquitoes is very great. I put some catfish in a bucket containing mosquito larvæ, and all larvæ had disappeared twenty-four hours after the introduction of the fish. The fact that catfish will destroy larvæ is interesting, because some ponds and pools are so muddy and filthy that goldfish and sunfish will not thrive; in such catfish would seem to be the remedy.—Harvey B. Bashore, M.D., in The Sanitarian.

THOUGHTS BORN OF THE MORN

BY LIDA M. KECK

Morning! A day is born—
A gladsome, golden, glorious day—
Bright dewdrop gems and garlands gay
Day's robes adorn.

Morning! Oh, glorious thought,
With new life pulsing in the veins,
To rise, enriched by all the gains
Past days have brought!

Morning! The chance is ours
To pierce the mountains' purple haze,
And, wiser grown from yesterdays,
Strengthen our powers.

Morning and dewy sod;
Morning and landscapes fair;
Morning and soul-felt prayer;
Morning and—God!

Sunday Reading

SOME DAY

BY J. THOS. HARBINE.

Some day the patient sun will rise,
And circle round a Land of Love;
Serenely beaming from above
On happy hearts and laughing eyes.

Some day the stars will twinkle down
Upon this old world filled with peace,
Where naught that's good shall ever
cease
Nor face of man grow dark with frown.

Some day, some day the moon will glow
When none shall feel the pinch of need,
Or show the brutish marks of greed,
Where'er the vagrant winds may blow.

Some day—oh, haste that happy day!—
Mankind from error shall be free,
And rise to true nobility,
When might to right hath yielded sway.

"THE BEST I COULD"

"IS ESTHER home, grandma?"
"No, dear; she's gone for a drive."
"Oh, I'm sorry to have missed her," I said, rather selfishly.
Grandma must have noted the disappointment in my voice, for she smiled, and said, "Won't you come up on the veranda and keep me company for a while? I'm lonesome to-night."
"Yes, grandma dear, I should love to sit with you a while." The truth was, I, too, was "lonesome" that night. It had been a trying day, and I wasn't happy.
"I'm so glad that Essie can have a drive this hot night," I said.
"Yes, Essie doesn't have many pleasures," said grandma, regretfully.
"No; and she deserves them, too, she's so sweet and unselfish."

"Yes, Essie is so conscientious, and she is always kind to people," continued grandma; "and after all, that's the only way to be in this world. I know many people who have been cruel to others for a time, but it always comes back to them."
"Yes?" I said, inquiringly; but grandma didn't "tell on" any one who had been cruel. She was too considerate for that.
"And then," continued grandma, "it's very sweet, when one grows old, to look back over life and be able to say, as did my dear daughter, Essie's mama, when she went away, 'I did the best I could.' It's very satisfying to know that one never knowingly did an unkind thing to any human being."

As the moonlight touched her dear old face at that instant, it was plain that grandma was one who had "done her best." As she sat there that summer evening, her hands lying quietly in her lap, her head resting in the big arm-chair, and her sweet, faded eyes gazing out far beyond the velvety lawn, far beyond the rose-bushes at the gate—out, out into other days—she was the embodiment of goodness, a perfect picture of a life well lived. I found myself repeating softly, "And at eventide it shall be light."

My musings were broken by grandma's eager voice saying, "There's Essie now," and in a moment Essie and her handsome escort joined us on the veranda.

Essie was a dear girl, and we had a most happy hour after she came, but somehow all through our conversation I heard grandma's words, "It is very sweet, when one grows old, to be able to look back over life, and say, 'I did the best I could.'"

Before I left them, grandma stole away, but just as she was going upstairs she called out a tremulous "Good-night." Essie ran to her, and as I heard her say, "Good-night, dear Muzzie," my heart sent a prayer up through the stars, up beyond the blue, and its burden was "Dear Father, make me like grandma, so that when life's eventide shall come for me, I, too, may say, 'I've done the best I could.'" L. M. K.

GEMS OF THOUGHT

Man is unjust, but God is just; and finally justice triumphs.—Longfellow.
Unless above himself he can erect himself, how poor a thing is man.—Daniel.
I find the great thing in this world is not so much where we stand as in what direction we are moving.—Holmes.
I have always observed the thread of life to be like other threads or skeins of silk—full of snarls and encumbrances.—George Herbert.
Little do ye know your own blessedness, for to travel hopefully is a better thing than to arrive, and the true success is to labor.—Stevenson.
To tell a man to study, and yet bid him under heavy penalties to come to the

same conclusion with those who have not studied, is to mock him.—Andrew D. White.

You need God in the very things that seem to separate you from him. You must seek him in the very places where the misery of life seems to be that he is not. You must question the stoniest paths for streams of water.—Phillips Brooks.

We are often poor, mean, low; but there is in the soul an ideal of something better than we. In the midst of our folly and fault there stands before us the pure image of serene goodness, and we cannot but reverence it. This also is God.—Selected.

Little self-denials, little honesties, little passing words of sympathy, little nameless acts of kindness, little silent victories over favorite temptations—these are the silent threads of gold which when woven together gleam out brightly in the pattern of life.—Canon Farrar.

We know not precisely what is best for us. We know not what will make us truly happy. We know not what will help us best in our struggle against temptations. And if we were to try to make a distinction between our mere passing wishes and that which our souls really needed, we should utterly fail. But we need not try. Let us take all our wishes, all our longings, all the promptings of our consciences, to the feet of our Father. He will hear and he will do. He will hear all we say. He will know what parts of our prayer are best for us to have, and what are not. And he will give us what his fatherly love will choose. And therefore to all our prayers we will add, "Thy will be done in earth, as it is in heaven."—Frederick Temple.

THIS WARM-HEARTED WORLD

The last time that Frances E. Willard spoke to a Washington audience, she told of a Chicago bootblack, who with his kit on his shoulders and a package of newspapers under his arm, stopped at the call of a man with a club-foot. He worked away at the man's shoes, giving them as fine a polish as he could, and when the job was done the man threw him double pay, saying, "No change; I made you more work than most folks do."

Quick as a flash the little fellow handed back half of the money, saying, with his eyes full of earnest sympathy, "Oh, mister, I couldn't make money out of your trouble."

Not far from Washington there lives a boy who has to bear the heavy burden of deformity, but so bravely does he bear it that he is the very heart of his home, the brightest and cheeriest and most helpful one in the household.

Not long ago he went out and hunted up a situation for himself, so that he might be able to pay his share of the family expenses.

Somebody asked him, "Don't you find it rather disagreeable going about as you have to now?"

He looked up with his bright, flashing smile, and answered quickly, "Oh, no; everybody is kind to a fellow in my fix," with a slight gesture toward his back as he spoke.

There is plenty of love and sympathy in the world, after all, if our eyes are open to see them.—Christian Endeavor World.

REST

What is rest? It is "to step out of self-life into Christ life; to be still and let him lift you out of it; to fold your hands close and hide your face upon the hem of his robe; to let him lay his cooling, soothing, healing hands upon your soul, and to draw all the hurry and fever from its veins; to realize you are not a mighty messenger, an important worker, of his, full of care and responsibility, but only a little child, with a Father's gentle bidding to heed and fulfil; to lay your busy plans and ambitions confidently in his hands, as a child brings its broken toys at its mother's call; to serve him by waiting; to praise him by saying 'Holy, holy, holy,' a single note of praise, as do the seraphim of the heavens, if that be his will; to cease to hurry so that you lose sight of his face; to learn to follow him, and not run ahead of orders; to cease to live in self and for self, and to live in him and for him; to love his honor more than your own; to be a clean and facile medium for his life-tide to shine and glow through—this is consecration, and this is rest."—Atlanta Constitution.

Liquor-selling is one of the most criminal methods of assassination for money ever adopted by bravos of any age or country.—Ruskin.

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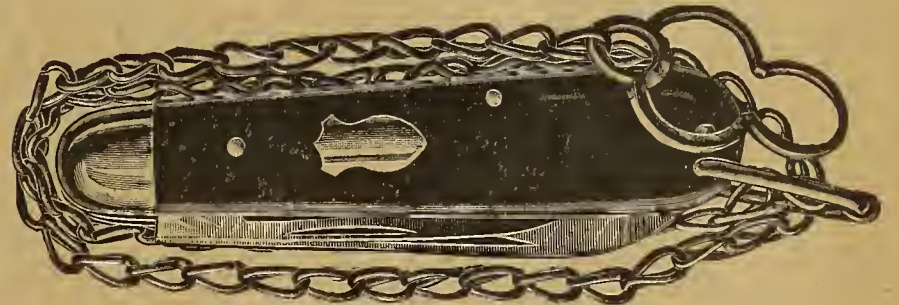
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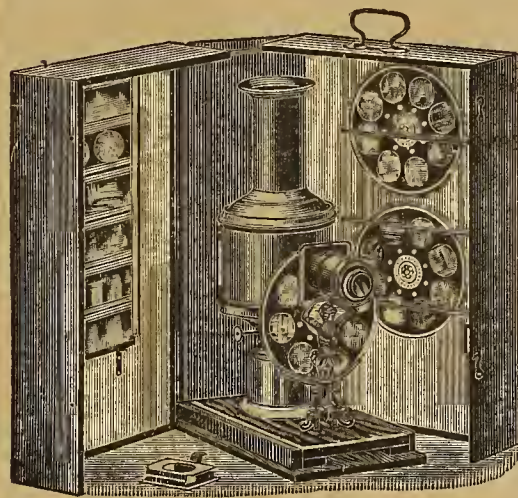
This is no cheap knife, but one that is guaranteed by the manufacturer to be as represented in every particular. Good steel, finely tempered blades, good solid handles nicely trimmed. THE CHAIN is finely polished, and has twisted links. It fastens to the belt or suspenders, and the knife can't be lost. It is the knife for boys, and the latest thing out. Order as No. 495.

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WAYS WITH CAULIFLOWER

CREAM-OF-CAULIFLOWER SOUP.—Cook in a double boiler until perfectly tender one pint of finely cut cauliflower with one quart of milk, then press through a coarse sieve, and return to the fire; season to taste with salt and pepper, and add one tablespoonful of butter, and one dessert-spoonful of corn-starch stirred smoothly in a little cold milk. Cook, and stir until perfectly smooth, then serve at once with small oblongs of buttered brown bread.

BOILED CAULIFLOWER.—Pick off the outer leaves, and cut off the stem close to the flowers. Wash thoroughly in cold water, and allow to soak with the top downward in cold salt-water, allowing one tablespoonful of salt to each gallon of water. This will draw out all hidden insects. Then tie it in a piece of cheese-cloth to keep it whole, place stem downward in a kettleful of slightly salted boiling water, and let cook, closely covered, until tender. When done, lift from the water, remove the cloth, place it on a heated dish with the flowers up, pour cream sauce over it, and serve.

CAULIFLOWER AU GRATIN.—Boil the cauliflower. Melt one ounce of butter in a frying-pan, and stir smoothly in it one tablespoonful of flour; thin with one half pint of milk, stir until boiling, then add four tablespoonfuls of grated cheese, one half teaspoonful of salt and a dash of cayenne. Stir and cook for a few minutes longer, then pour it over the cauliflower, and serve hot.

BAKED CAULIFLOWER WITH CHEESE.—Boil the cauliflower until tender, break into small pieces, and put a layer in the bottom of a buttered baking-dish. Cover with cream sauce, sprinkle with grated Parmesan cheese, and add another layer of cauliflower. Finish with a layer of the grated cheese, and brown delicately in a rather slow oven.

SAVORY CAULIFLOWER.—Boil the cauliflower, and set aside to cool. Prepare one pint of egg-batter, and add to it one teaspoonful of minced parsley and one tablespoonful of mild grated cheese. Dip each sprig of cauliflower in this batter, and fry in hot butter. When they are done, place them on a hot dish, and serve immediately.

MASHED CAULIFLOWER.—Boil the cauliflower with one whole onion. When tender, remove the onion, and thoroughly drain the cauliflower. Mash well, press through a coarse sieve, then add a lump of butter, a few tablespoonfuls of sweet cream, and salt and pepper to taste.

CAULIFLOWER IN BUTTER.—Break a firm head of cauliflower into sprigs, and cook in slightly salted boiling water until about half done. Take up, drain, and put in a saucepan with two ounces of melted butter, the juice of one lemon, two tablespoonfuls of chicken stock or cream, a dash of cayenne and one small cupful of water. Cook until the cauliflower is tender, take up, strain the gravy, add to it one cupful of thick white sauce, pour it over the cauliflower, and serve.

SCALLOPED CAULIFLOWER.—Break the cauliflower into small sprigs, and cook in boiling salted water until tender. Place the pieces in a buttered pudding-dish, and pour over them a sauce made as follows: Mix well one half pint of bread-crumbs, three cupfuls of sweet milk, one beaten egg, two teaspoonfuls of salt, a little pepper and one cupful of diced cooked chicken, veal or tender beef. Bake in a moderate oven until delicately browned.

CAULIFLOWER SALAD.—Stand a firm white cauliflower in salt-water for thirty minutes, then cook it in boiling water until tender, but not quite done. Drain, cool, cut into sprigs, and arrange these neatly in a salad-bowl lined with crisp, tender lettuce-leaves. Mash the yolks of four hard-boiled eggs, and cut the whites into petals; arrange these over the cauliflower in imitation of daisies, and pour over a plain French dressing.

CAULIFLOWER FRITTERS.—Cook a head of cauliflower until half done, then take up, and drop in cold water to keep it white. Break it into sprigs, and dip each sprig in rich white sauce slightly warm, and lay aside to cool; then dip in rich egg-batter, and fry delicately in hot butter. Drain on unglazed paper, lay in a heated dish, and garnish with fried parsley.

CAULIFLOWER CROQUETTES.—Chop two cupfuls of cooked cauliflower quite fine, add one half cupful of fine bread-crumbs, and one cupful of cream sauce, which is made by cooking together one tablespoonful each of butter and flour, thinning with one cupful of milk, and just before removing from the fire adding one beaten egg. Season to taste, mix all well, and set aside to cool; then form into croquettes, egg and bread-crumbs, and fry in butter to a delicate brown.

CAULIFLOWER MINCE.—Allow one cupful of finely chopped cooked chicken or veal to two cupfuls of chopped cooked cauliflower. Moisten with chicken or cream sauce, season to taste with salt and pepper and a little finely minced onion, cover with buttered crumbs, and bake for twenty minutes in a moderate oven.

CREAMED CAULIFLOWER ON TOAST.—Break a firm white head of cauliflower into sprigs, soak in salted water thirty minutes, then cook in boiling salted water until perfectly tender. Take up carefully, drain, and lay on squares of buttered toast. Pour cream sauce over the cauliflower, and serve.

MARY FOSTER SNIDER.

A KETTLE-HOLDER

Very dainty indeed must be the kettle-holder now used at afternoon teas. An ornamental and useful one is made as follows:

From thick white writing-paper or soft leather cut several squares measuring four inches each way. Sew these pieces together, and cover with heavy white silk.

A delicately tinted tea-rose should be embroidered with wash-silks on one side before placing over the paper, and some fragrant tea-leaves placed between the layers of paper makes the tea-rose seem almost real.

A narrow ruffle of the silk or of fine white lace should finish the holder around the edge. In one corner sew a tiny brass ring, crocheted over with white knitting-silk, by which to hang it when not needed.—Nettie Ransom Houston, in *The Ladies' World*.

The Housewife

"THROUGH ALL THE YEARS"

BY LIDA M. KECK

A cloud came slowly drifting by—
A plain white cloud that gave no hint
Of roseate glow or golden glint—
A simple cloud that held no tint
Or sunset sky.

I gazed upon it as it passed—
A filmy form of lustrous white—
When lo, a ray of rose-hued light
Transformed with scepter golden bright
Its snowy cast.

A moment more, and then a queen
In purple, edged with eider-down,
Her proud head decked with golden crown,
Sat, conscious of her great renown,
With smile serene!

Instinctive homage filled my soul;
But ah, a chariot near did stand.
And stepping in, she waved her hand,
And on into another land
Away did roll.

Yet through the years of joy or strife
Within the gallery of my mind,
By faithful mem'ry limned and lined,
That beautiful picture, safe enshrined,
Adorns my life.

A soul paused near me in her flight—
A modest soul with tender grace;
She greeted me with ne'er a trace
Of pride, but in her gentle face
There shone a light.

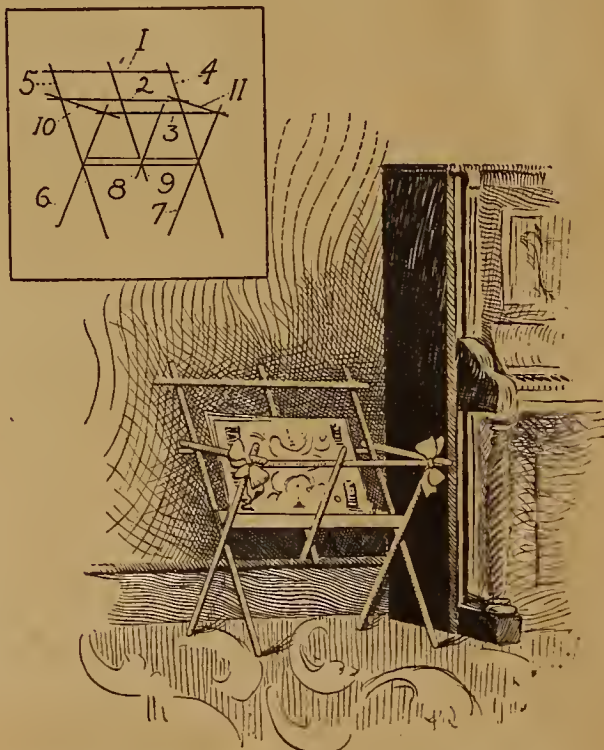
And like the cloud in evening sky,
Her fair cheek, touched by roseate tint,
Gave silent comfort, helpful hint
Of sorrow's tear or laughter's glint—
Of smile or sigh!

But soon she faded from my view,
And cloud-like went her chosen way
(She might not, tho' she willed it, stay);
And I am gazing, lone, to-day
On empty blue.

But who shall say that, spite my tears,
I am not happier to-day
Because a sweet soul came my way,
And that her image shall not stay
Through all the years!

BROOMSTICKS AND BRAINS

What a perplexing combination it is, that of luxurious tastes and consumptive pocketbooks, and how many of us suffer from it in different degrees! To the very poor it is of course a tragedy, but to that great army of people whose moderate incomes supply them



Sticks marked 1, 2 and 3 should be twenty-eight inches long; 4 and 5, thirty-nine inches; 6 and 7, thirty-two inches; 8 and 9, twenty-three inches, and 10 and 11, eighteen inches.

the necessaries of life, but to whom the luxuries are a forbidden joy, it is formidable enough. How often the wife or daughter sighs for some dainty addition to parlor or sitting-room which the many demands on the purse make impossible. To such a timely suggestion, together with a small amount of confidence and clever fingers, is invaluable and will work wonders. Broomsticks and brains are especially a happy combination.

I have in mind a long-cherished dream of my own, now brought to full realization through the above medium, the telling of which may benefit some ambitious sister. I had the parlor and the piano, which are necessities, but I wanted a music rack or case, which in the condition of my finances then was a luxury, so I set my wits to work, and this is what they evolved—

a music-rack which answers every possible requirement of utility and beauty.

Having collected eleven broomsticks, I cut them to the lengths desired—three of them twenty-eight inches long, two thirty-nine inches, two thirty-two inches, two twenty-three inches, and two eighteen inches, and whittled the ends round.

Then with a gimlet I bored holes, and fastened the sticks together with screws in the manner illustrated. At the center crossing of the sawhorse I fastened a thin, smooth board about two inches wide, and another on each side, making a sort of trough for the music to stand in. When completed it is just three feet high and two feet two inches long, and when painted white with a coat of enamel it makes a pretty piece of furniture. A dash of gold paint or a bright ribbon wound between the sticks would further improve its appearance.

Now, I am only a girl, neither mentally brilliant nor physically strong, but the idea is original with me, and my own hands did the work. The result was a piece of furniture that invariably calls forth the remark, "Where did you get such a quaintly pretty music-rack?"

Try it, sisters, and I think you will be pleased.
M. ESTELLE SMITH-HYMERS.

IRONING TABLE-LINEN

No matter how carefully, in every detail, the dining-table may be laid with beautiful china, silver and cut glass, if the table-linen has been poorly ironed this one defect will stand out so prominently that it will hide from view all other perfections. Yet how often we see rough, limp table-linen even on the tables of those who are perfect housekeepers in all other respects. It seems a pity that so much carelessness should be indulged in, especially in so important a branch of housekeeping, for many beautiful effects and much daintily prepared food have been spoiled by unattractive table-linen.

It may not, however, be owing wholly to carelessness of the person performing the work, for it is really an art to iron table-linen perfectly; yet it is so very simple and easily learned that even the most stupid can be taught how to do it.

Too often servants who are ignorant of the proper method of performing any branch of housework are left to follow their own ways, and then their work is viewed with dissatisfaction. No housekeeper should permit a new servant to iron her table-linen without taking the oversight of the work herself the first time it is done. If she finds that the servant can do this work properly, then she can trust her to do it alone; but if not, careful teaching in all its details should be given each week until the lesson is thoroughly learned. I have taught this branch of housework to many young, inexperienced and really stupid girls, and without one exception, by exercising patience and perseverance, they have been able to perform this work most satisfactorily and in a reasonably short time.

When table-linen is washed, bluing and boiled starch should be added to the last rinsing-water. Care should be taken not to use too much starch. The aim should be to avoid using enough to make the linen stiff and paper-like, but to use just enough to give a smoothness and gloss to the linen and remove the limp appearance which unstarched linen has, especially if it has been laundered many times.

Starched linen should be thoroughly dry before sprinkling, and should be sprinkled the night before it is to be ironed. The sprinkling should be done thoroughly, not slightly dampened, as we sprinkle cotton; for what would be sufficiently damp to iron cotton nicely would leave linen rough and wrinkled, no matter how many times it may be gone over with the iron or how much strength be expended. Every thread must be very damp, almost wet. Herein lies the secret of smooth, glossy linen. Even cheap, coarse grades of linen can be made to look smooth and nice if sufficiently dampened before ironing.

Next in importance is a hot iron. Linen cannot be nicely ironed with an iron only moderately hot. The linen being so very damp, a much hotter iron can be used without scorching the linen than can be used for ironing cotton. However, care must be taken not to yellow the linen at the last of the ironing, after the moisture is nearly dried out, for this would spoil the result, regardless of how nicely the work may have been done up to this point. After selecting an iron of the right temperature, the linen must be gone over again and again until it is thoroughly dry. No portion of it must be left even slightly damp; this a very important point.

A table-cloth may be ironed folded once lengthwise through the center, but only this one crease should be ironed in it. Fringed napkins and doilies should be held up by two corners and snapped vigorously, changing from side to side until the fringe of all four sides is thoroughly shaken out, then smoothed out on the ironing-board with the hands, having the fringe perfectly straight. Iron the center first, leaving the fringed edges until the last, going over it carefully, and making the strokes of the iron straightwise with the threads of the fringe. Ironing crosswise the fringe would disarrange it, and it would not then be straight, but crossed together, having a mussy appearance, spoiling what would otherwise be a nicely ironed piece of linen. Napkins, doilies, tray-cloths and centerpieces should be ironed single; embroidered pieces only on one side, and that the wrong one, but napkins should be ironed on both sides, and only the napkins folded. And remember, each piece must be ironed over and over again until thoroughly dry, smooth and glossy.

HATTIE L. KNIGHT.

HAT-PINS

The new hat-pins are in novel shapes, and the athletic young woman may wear oars, golf-sticks or whips in her hat. An outcome of the fad for beetles, spiders, etc., is a pin with one of these insects attached by a spring to give it the crawling movement common to its kind. One novelty is the head of a snake, with gleaming jewels for eyes, so placed that it has the appearance of being ready to dart at the innocent beholder.—The Modern Priscilla.

Romany Rose

By LORENA M. PAGE

"How gorgeously the trees and shrubs are painted. A tribe of Indians must have been skulking around here these frosty nights, decorating the face of Nature with war-paint." Lois Arblay addressed the little, wizened man who sat near her.

He smoked on in silence, seeming not to notice the remark the girl had made.

"There are all the shades of red and yellow, and the browns and tans are the color of buckskin garments."

The old man blew a cloud of smoke for answer.

"And the air is hazy with the smoke from hidden wigwams," continued the girl, nothing daunted.

"The most treacherous lot—I've met in—all my travels, and I've been—pretty much the—wide world over," puffed the little man, dreamily. Then his manner suddenly changed; he straightened up in his chair, emptied his pipe, and looked keenly in the girl's face.

"But, to go back to the subject—you say that this young man's name is Walton. What is his first name?"

"Lester; Lester Walton."

"Ah! Lester—Walton." He left his chair, and took two or three quick turns the length of the veranda.

"Do you know him, Uncle Jules?"

The old man evidently did not hear the question, for his first words were, "What do you think of him?"

"I think—well, it is their wish, and I owe them more than a daughter's duty. I don't forget that I was a homeless orphan when—"

"Bosh! Take my advice, and look out for the wishes of No. 1 first," the small man interrupted.

He resumed his chair, and silence fell between them for a time.

"So you're sure that you don't care particularly about him?" he asked at last.

"Not in the way I should, I am afraid."

"Say, you must have near neighbors down there!" he exclaimed so suddenly that the girl jumped. "If my eyes don't deceive me, I see smoke rising over the hill. Perhaps," he added, with a dry chuckle, "it's from your 'hidden wigwams.'"

"Why, there is smoke!" She shaded her eyes from the glowing sun, and looked in the direction indicated.

"But we have no neighbors under the hill."

"As the folks are away, buying good things for the party to-night, and we are in full command here, we'll make a raid on the intruders."

They started by a side path for the brow of the hill, and had gone but a few steps, when the old man sighed deeply. The girl noting it, remarked, "You've been home only a couple of days, and I believe you are longing for some other part of the world this minute."

"No, Lois, you are mistaken—it's satisfaction. One of the tasks I had set myself is ended, I hope. If so, I have taken my last trip abroad, and shall settle down in that new home I've bought. I've been looked upon as a 'black sheep' and a rover long enough. I have a goodly supply of this world's goods to keep me right and to leave behind to the right one when I leave."

Lois smiled at his queerly worded remark, and wished him many long and happy days.

When they reached the brink of the hill a grand panorama lay at their feet—a glowing autumn landscape, through which ran a broad river. The valley was as bright as a rich Oriental fabric trimmed with a silver band.

"Why, Uncle Jules, they are wigwams! How did they ever stray here?" Lois was gazing in wonder at a number of tents grouped under the clustering trees on the river-bank far below them. From their midst rose the spiral curl of smoke.

"They are gipsy wigwams, child, and I'm mighty glad to see them. Now don't look surprised, nor mention it to any one," the old man observed, confidentially, "but I once traveled with a band of them for several months. They're a jolly lot!"

"Oh, did you, Uncle Jules? I'd like to do the very same thing. You must tell me all about it. How free it must be, roaming where fancy dictates. We'll go down and visit them!"

"Lois, you're a girl after my own heart. Of course we'll go down; but I saw the folks drive in just now, and it's the dinner-hour. We'll go the first thing this afternoon. I am as anxious to get to that gipsy-camp as you are, but—I have a little scheme to perfect before then."

Arm in arm they went toward the house. When they had nearly reached it the old man chuckled, "I rather think, little girl, that you'd get over your notions of being a gipsy maid by the time you had traveled over rough and miry roads for miles, helped to pitch tent with frosty fingers, woke up a few mornings with a good-sized snowdrift on your blanket, or emptied your shoes of rain-water a few times."

"Uncle Jules, it's a shame the way you always take the romance out of my flights of fancy," laughed Lois, as they went up the veranda-steps.

"I think no less of you for the fancies," was the quick rejoinder.

At the dinner-table he was strangely preoccupied and thoughtful. Lois finally made the remark that Uncle Jules must be in love at last, for he had not spoken since taking his place.

"No," he replied, "love passed me by years ago." Then he turned to his brother, Henry Arblay, and said, "I've been thinking, if you and Lydia did not mind—I know Lois will fall in with the idea—that it would be quite interesting to have one of the gipsies who are camped down under the hill come up to the house this evening and tell the young folks' fortunes. Lois was wondering this morning what to plan that would be a little out of the common."

"Oh, Uncle Jules, the very thing!" Lois cried.

After some deliberation the others agreed to the plan.

When, shortly after dinner, the camp was visited, the two paused in the edge of the thicket at the foot of the hill to inspect the scene before them.

"I'll sit here in the bushes, and wait until the men stray back. I'm not much good talking to women-folks," said Uncle Jules, and he dropped on a convenient log. "You go ahead and be picking out your fortune-teller."

Lois had nearly reached the tents before she noticed the girl who was seated on the roots of a great elm, fishing. She paused, struck by the small gipsy's fine profile clearly outlined before the rushing water. The girl turned and rested her large eyes full upon the visitor. They were wonderful eyes, deep reddish-brown, soft and velvety, and very sad in expression. The oval face, tanned by exposure, was rich in coloring and framed by a mass of coppery, tangled elf-locks.

Against the tree-trunk a withered old crone pulled vigorously at a short-stemmed clay pipe, and watched them out of her, small, bleary eyes.

"Do you like fishing?" Lois asked, gazing at the small gipsy in admiration.

"No," was the short answer.

"Then don't fish; talk to me."

"I've other things to do—I must catch the fish for supper," she said; then, after a short pause, "I hate this work; I hate this life!"

The old woman drew closer.

"Would the lady like her fortune told?" she croaked. "I'm sure it is a fair one."

Lois shook her head, and turned back to the girl. The old woman again leaned against the tree.

"I thought nothing could be finer than this kind of life—to orange groves in winter, and cooler climes in summer, anywhere, everywhere, no labor and new scenes."

"Oh, lady, you cannot know! They like it," she said, pointing over her shoulder, "but I long for a different life, and for a home such as you must have."

The little gipsy's face was turned toward the river again, as though intent upon her fishing, but Lois caught the glimpse of a tear upon her rounded cheek, and pitied her.

"Can you tell fortunes?" Lois inquired, after a pause.

"As well as any of them," was the reply.

"Then I want you to come up to the big house on the hill to-night—you can almost see the chimneys from here. There is to be a party, and we are anxious to know what the future may have in store for us. Will you come? I promise you a nice time."

"Yes, lady, I'll come," she cried, eagerly.

"And what am I to call you?"

"Romany Rose, lady."

"And my name is Lois Arblay."

"A nice name," and she repeated, "Lois Arblay."

"Not half so nice a one as Romany Rose," said Lois.

They were fast friends from that moment. The men sauntered in from down the river, and from the thicket came Uncle Jules with a boy of some ten or twelve years. Between them they carried three chickens. The gipsies watched them approach with varying expressions on their dark faces. The old man came up, and the boy stood beside him with drooping head, at the same time keeping watch of the man beside him out of the corner of his eye, as if not knowing what to make of him.

"Lacho divvus, miri pralia! (Good-day, my brothers!)" It was Uncle Jules who spoke, after a long pause, in which he had sized up every member of the band.

Lois, as well as the others, stood wondering at the strange language fell from his lips.

"What!" exclaimed the one who appeared to be the leader, as he left the group and stepped forward.

"Tu jines, lacho adosta. (You know very well.)" declared the old man. Then he continued, "Tute needn't be attrash to rakker. Mandy's been apre the drom mi-kokero. (You needn't be afraid to speak. I've been upon the road myself.)"

They all rushed around him then, shook his hands, and shouted until the valley rang with the cry, "Romanichel! Romanichel!"

The little children paused in their play, and echoed, "Romanichel!"

The old man capered and laughed like a boy.

While the men continued to converse with him in agitated Romany, the women gathered around Lois and invited her to look over the camp, and she, nothing loth, accepted the invitation. Near the entrance to the living-tent the boy who had come in with Uncle Jules was cleaning the fish. The inspection over, Lois paused near the youngster, and waited for her uncle, who was talking animated Romany to Romany Rose. She caught the boy's eye as he glanced up furtively from his work.

"How did you come by the chickens?" she asked.

"Lady," he faltered, his black eyes on the ground and his brown toes digging in the dirt, "you see—I was fishing—over there under—the bank, and when I thought I had a bite—I threw my line—up back of me, and—well, a chicken was waiting right there for my bait. The next minute it had swallowed it—hook and all."

"Oh, I see." Lois was amused.

"Of course I tried to get the—chicken loose," he went on, evidently gaining courage, "but I had to cut its throat to get—the hook out, and—well, that killed it, you see, lady."

Lois smiled in spite of herself.

The boy, seeing the smile, continued, "Perhaps you don't believe it, lady, but every time I pulled out my hook a chicken was waiting right there—to swallow the bait. That happened three times, lady, and that is how I came by—the three chickens."

Lois looked at him sternly.

"Of course I brought them to camp—it would be wrong to waste them."

"But what about the old gentleman?"

"Oh, I was frightened when I saw him, and was going to drop them. Men don't always believe like women when we explain things. But say, he spoke to me in our own tongue, and told me that he would help carry them. He's a queer one."

"But those chickens belong up to our place, and

you must not catch any more of them!" commanded Lois, in a severe tone. Then to hear what more the little vagabond would say, she asked, "What kind of bait were you using?"

"Just corn, lady; worms are such hard digging. But I told the old gentleman that I wouldn't try to fish any more where the chickens bothered so."

Uncle Jules joined her at this point, and they went up the hill together. As they reached the summit, one of the gipsies rode up the long incline on a fine, mettlesome horse, and cantered away over the public road in the direction of the town. Lois watched him disappear in a cloud of dust.

"You're sure that you don't care about that Walton?" the old man questioned, out of breath with the long climb.

"Why, no."

"I'm glad of it. That fellow rode into town on business."

Lois wondered what connection there could be in her feelings for Lester Walton and a gipsy riding into town on business.

The young people began to arrive early. Every window and door of the big house was wide open, and they shed their rays far down the road, and shone like a beacon on those who came from the way of the valley. Gay voices and laughter rang out upon the air, which was as balmy as a summer night.

During a lull, when the merriment had reached its highest, there came another sound. Those on the veranda heard it first, and the word passed within, until all stood listening. It was a song rising and falling in the darkness, and accompanying it swelled the vibrant notes of a guitar. It was a woman's voice, and she sang as the birds sing—with all the abandon, freedom and untaught sweetness of Nature. The melody was as strange and wild as a siren's might have been, and one's fancy roamed afar where the summer moonlight lay upon murmuring seas in some fair clime. The guests flocked to the veranda and crowded to the open windows.

"It is true gipsy music," declared Uncle Jules, "the first I have heard this many a day, and it does my old heart good!"

The minstrel passed the summit of the hill, and drew nearer, and they began to catch the words:

"The wind whistles over the heath,
And the moonlight flits over the flood;
And the gipsy lights up his fire
In the darkness of the wood—
The wood,
In the darkness of the wood.

"Free is the bird in the air,
And the fish where the river flows;
Free is the deer in the forest,
And the gipsy wherever she goes—
She goes,
The gipsy wherever she goes."

The singer reached the end of the veranda, paused, and repeated:

"Free is the bird in the air,
And the fish where the river flows—"

Her voice was full of pathos. She came up the steps, and stood a moment with the light from the open window full upon her. Lois stepped forward, and led her into the house.

It was Romany Rose. Her dress was green, the true gipsy color; knotted around her neck was a gay kerchief; about her shoulders she wore a red cloak, the hood of which was thrown back, revealing her crisp, bright hair; hanging by a faded ribbon around her neck, and held partly under her arm, was an old guitar with seven strings. She was escorted to the corner of the great room, where a pair of bright curtains were hung in imitation of a gipsy tent. Romany Rose was a success. Sitting in state, she told their fortunes, and the future seemed bright for one and all.

"Come, Lois, you have not tested the Fates, I believe. It is time to see what fortune lies in store for you—and for you, also, Mr. Walton."

They were standing near the open window, looking out to where an old woman sat in the shadow, smoking her pipe, when Uncle Jules addressed them. He led the two, laughing, toward the curtained corner.

"Decide our fate. O Queen." As Lois spoke, she knelt before the little gipsy in playful humility. Lester Walton drew a chair near them. Uncle Jules, unobserved by either, stepped into the shadow of the curtains. The small oracle caught his eye with a questioning look, and he answered by an almost imperceptible nod.

"This is a beautiful hand, lady, and I see only good fortune in store for you; ah, yes, and great wealth for you soon—great wealth. The life-line runs as smooth and clear as the river did to-day, where I saw you first."

"But," said Lois, with a gay laugh, "the river did not run smooth out among the rocks and logs in the swift current, where you caught the fish."

"But you see, lady, that is the danger of to-day, from which I wish to warn you," prompted the sibyl. "All below that spot, as far as I could see, the water ran smooth and clear."

"Ah, I see; you wish to warn me, Wise One. Well?"

But the little gipsy turned, and addressed Lester Walton, who was sitting with a bored expression on his handsome face.

"Would the gentleman like his fortune told?" asked Romany Rose, in a low voice.

"No, thanks; it is a waste of time." He looked at Lois with a meaning smile. "My fortune is already told."

"Now," cried Lois, playfully, "that is not fair, Mr. Walton. She seems to have something to tell you before she finishes mine."

"Well," he replied, "since our future is so intermingled that one's fate cannot be told without the other, proceed."

There was a slight movement of the curtain as the gipsy took the long, slender hand in her own small brown one, and began:

"Ah, a gentleman's hand. You have never known what it is to labor for your bread. Your life has been one of ease and gaiety, and many are the fair ones who have bowed at your command."

Was there a movement as if to withdraw the hand? Lois laughed, and remarked that she was finding him out at last.

"I see a city far from here," continued Romany Rose, uninterrupted. "There are grand buildings and wide streets. I see a beautiful girl, among other girls, in a school there. She has hair like the ripened wheat, and eyes as blue as the summer skies. Her name—let me see if I can tell you her name. Yes, I have it; it is—Alice Leighton."

The man gave a start, then laughed.

"Alice Leighton loved you," went on the low, chanting voice, not seeming to notice the result of her words, "and you said that you loved her. It was not her you loved—it was her fortune, which she gave you when she supposed she was your wife. That was long ago—and she is dead."

Lois looked at the man before her. He was rather pale, but the bored expression still rested upon his face.

"You are a girl of great fancies, and have a most vivid imagination," he remarked, nonchalantly, as she paused. Then he saw the expression on Lois' face, and his mood changed. "It's a lie! A contemptible lie! Lois, you surely cannot credit this idle tale of a vagabond gipsy—such a girl as this! Alice—Leighton, did you say?—never existed that I am aware of."

"Lester Walton," retorted the old man, stepping from his concealment, "such a girl did exist until she met, loved, and believed she married, a man of your same looks and name. This picture of yourself with your signature at the bottom will testify. She was my ward. Her father had been my dearest friend; her mother—the only woman I ever loved. I found this among Alice Leighton's effects after she was dead. I have searched for you a long time and in many places. At last I have found you."

As Uncle Jules bent to tenderly stroke Lois' hair, Lester Walton rose, and went toward the door. He had only crossed the threshold, when he was met by two men, who appeared to be waiting for him, and after a brief struggle they led him into the darkness.

When the repast was served, Uncle Jules remarked that Mr. Walton had been called away on very important business.

The old woman's pipe still glowed in the shadow.

"My dear," Mrs. Arblay said to the little gipsy, "you look tired. Come out among the young people." The good woman found her a place in the midst of the gay throng. Here Romany Rose, with her great brown eyes and copper-colored hair, was again the center of attraction.

The smoker drew close to the window.

"You have told all our fortunes," a gay voice said to the gipsy maid. "Can you tell your own? Do tell us of yourself."

"Yes, I can tell of myself, but my fortune all seems to lie in the past—I know not of my future," she replied, simply.

"Oh, tell us about it, please do!" they cried.

Romany Rose glanced apprehensively through the open window near her, and not seeing the figure crouching low in the shadow, she began:

"It is long ago—so long that I cannot tell the time—but often when I dream it all comes back to me. I drop asleep with the stars shining down through a hole in the tent, or the rain falling on the roof of the van—and—then I dream—I am not in a gipsy tent, but in a small white-curtained bed, and—a face comes and bends above me in my dreams. It is a beautiful, fair face, her hair is brown, her eyes are blue; she bends and kisses me, and then I wake. When I wake I weep, to find it is only a dream, and—I a roving gipsy as before. When I ask the others about it, they tell me that I have fancies, and even in my dreams it seems so long ago that it may be fancy—I cannot tell."

They listened in silence, held by her pathos and some strange fascination. She sat with her great eyes fixed on space, talking more to herself apparently than to the group about her.

The old woman's pipe had gone out. She crouched just under the window with clenched hands, her withered frame shaking with suppressed emotion.

"Sometimes I dream of a tall man, who carried me about on his shoulder—"

The faltering tale stopped short. The eyes of its owner lost their vacant expression and became riveted with a fixed stare. The listeners, following her gaze, saw a portrait hanging upon the wall.

"Look! There is the dream lady! It is the same beautiful lady! Oh, who is she? Please tell me! I love her—I—" and she dropped upon the floor before the picture in a paroxysm of weeping.

Mr. and Mrs. Arblay, who had been attracted to the group, looked at one another with wondering eyes, where a great joy was dawning.

Between them they lifted her from the floor, their hearts too full to utter more than one word—that of their child, given up long ago for dead. She looked with tear-wet eyes from their faces to the picture, and back to their faces again; then she flung herself into their arms.

"Oh, I know you!" she cried. "I know you both! You are the lady in the picture—the lady of my dreams! And you, sir—I remember—it was on your shoulder—and—and—"

Uncle Jules went to the door to blow his nose, and was just in time to see the old gipsy disappear over the hill. He did not tell of the instance, although he knew that she was going to warn the camp.

"I have a request to make," he said, after the last lingering guest had taken leave, "and that is that now you will let me have Lois, for a part of the time at least. She cheered you in your loneliness; now let me have her to cheer my old days and superintend that new home I've bought. Lois, are you willing? I'll not forget your kindness at the last."

Lois was willing, and so it was settled.

When, in the early morning, they remembered the gipsy camp, only a few smoldering ashes and a litter of straw remained to mark the spot.

A Dish of Salad

By HELEN PERRYMAN

A MESSENGER-BOY rang the bell at Mrs. Young's cozy little flat. It had been an unusually warm day, and the curtains were closely drawn to keep out the glare of the hot sunshine. A fierce puff of hot air struck Mrs. Young in the face as she opened the door to take a note from the boy's hand.

"A note from Jack," she said, languidly. "I suppose he's not coming home to dinner, and I shall be glad of— Oh, dear! Isn't that provoking?" she continued, as she glanced through it. "Joe Eastman is in town, and I will bring him out to dinner. Be sure to have something good."

"Something good! And there's nothing in the house but a little cold ham!" She glanced at the clock, and her indignation rose higher. "Half-past five! It's a wonder he didn't wait until six o'clock! I'd like to know what I can get now! Oh, dear! And it's so hot; I didn't expect to get any dinner at all! Well, let me see," she reflected. "I have the ham, and I think a few olives. I'll just run around to the grocery, and get some lettuce for a salad. I hope Jack got that oil the other day. I told him to bring me a quart. And if I can get some peaches, I'll have peaches and cream for dessert. That won't be so bad, with coffee." She brightened as her housewifely instincts revived, and she hurried away to the store to make the necessary purchases. It was almost six o'clock before she got back, and she hastened to put the lettuce on ice.

She set the table attractively, with a pretty bowl of sweet-peas in the center, the pink slices of ham daintily garnished with parsley, and the olives arranged in little cut-glass dishes. She peeled the peaches, and placing them on ice, also, hurried off to make a presentable toilet, leaving the salad-dressing until the last.

"Oh, dear!" she thought, with a gasp, as she slipped into a cool pink lawn dress. "I altogether forgot to look if Jack brought the oil! I don't suppose he did, for of all the absent-minded creatures—"

She glanced at the clock again as she hurried out into the kitchen.

"They'll be here in fifteen minutes. But there's time enough to make the salad if I can find the oil."

But no slender, familiar bottle met her anxious gaze as she searched the pantry, the kitchen cupboard, and even as a forlorn hope, the china-closet. Nervous and flurried at the thought of the slenderness of the repast without the promised salad, her disappointed glance fell on a round, comfortable-looking bottle in an out-of-the-way corner of the kitchen cupboard.

"Why, there it is!" she said, delightedly. "It's not put up in the usual way, but it's oil!" She removed the stopper, and sniffed at it suspiciously. "It doesn't seem to smell exactly right, but it must be. Anyhow, I haven't time now to question its origin," she thought, with a laugh.

Some ten minutes later, when the door-bell rang again, it was a very attractive hostess who greeted her husband's friend with sweet cordiality.

"My friend Joe Eastman, Elinor; you've often heard me speak of him. He's stopping over only from one train to another, so I made him come right out."

"So glad to know you," said Elinor, sweetly. "I should never have forgiven Jack if he hadn't brought you, for he has talked about you so much as—almost—to arouse my jealousy." She laughed gaily as Mr. Eastman hastened to make a gallant reply.

"I hope my admiration for his charming wife may not arouse Jack's jealousy."

"No, indeed," was Jack's hearty response. "The more you admire her, the better I'll be pleased. Well, Elinor, I hope you have some dinner for us. If Eastman's anything like as hungry as I am, we'll do justice to it."

"You need not expect an elegant dinner, for you know I'm my own cook, Mr. Eastman," Elinor said, with an apologetic smile. "And then it was so hot that I had made no preparations at all until—"

Jack was standing a little to the back of Eastman, and he shook his head violently at her. She stopped, a little confused as it dawned upon her that Jack did not want Eastman to know he had sent her word.

"I trust I have not put you to any extra trouble," put in Mr. Eastman, courteously.

"What nonsense!" exclaimed Jack.

"Oh, my, no," Elinor replied, with a mental reservation. "Now if you good gentlemen will excuse her for a few minutes," she continued, laughing, "the cook will proceed to place dinner on the table."

"A very charming little home," thought Mr. Eastman, as they seated themselves at the dainty table.

"A pretty nest for these two cooing birds."

"Eat sparingly of the ham, Jack," whispered Elinor, as he passed her to take his place at the table.

"What's that about the ham, Elinor?" he asked.

"Nothing," she was forced to reply, with an exasperated smile. "I was only wishing I had something else besides cold ham to offer Mr. Eastman."

"If there is any one article of food I have an especial fondness for it is cold ham," Mr. Eastman hastened to say. "Do you remember the ham sandwiches we used to steal at school, Jack?"

"Well, I should say I do," returned Jack, with a jolly laugh, as he handed Eastman his plate. "Did I ever tell you about it, Elinor?" he asked, helping himself at the same time to a bountiful supply of the ham. "How old were we then?" he continued. "About sixteen, I guess. And they did keep all the boys on pretty short rations at that school. Regular Dotheboys Hall it was, wasn't it, Joe? But we got even with them. We used to sneak the gardener's ladder, and put it up by the side of one of the kitchen windows. Then we had a fishing-rod, with a big needle stuck tightly in the end, and with that we could reach in and spear all sorts of eatables—ham sandwiches principally, though sometimes we caught a pie. Oh, but those were good days, and didn't that ham taste

fine? Not any better than this, though," helping himself a second time. "Can't I give you some more, Joe? Aren't you eating anything, Elinor?"

"I am not very hungry," said Elinor. "The heat has given me a slight headache."

"That's too bad, dear," said Jack, with ready sympathy. "But a little bit of this cold ham won't hurt you. Have some?"

"No, thank you, Jack," said Elinor, with as much emphasis as she dared employ.

"Do you remember the day old Prexy caught us at it?" Mr. Eastman was speaking in a reminiscent strain. "I was doing the spearing that day, and five or six other fellows were at the foot of the ladder to receive the catch. We used to get all we could, and take them to our room and have a spread. But the boys couldn't resist a surreptitious bite as the sandwiches were handed down, and they were all chewing away like good fellows, when somebody said, 'Are they good, boys?' I almost fell off the ladder, for there was old Prexy with his hands in his pockets and a severe expression on his face. One of the boys—a harum-scarum fellow, who said afterward he thought we should be expelled anyhow, and he might as well say what he thought—answered promptly, 'You bet you. These have ham in, and the ones we get at table never do!'"

"I see," said the old man, nodding his head slowly. "I am a little hungry myself. Would you mind giving me a sandwich?"

"Oh, yes. Ha, ha!" interposed Jack. "And would you believe it, Elinor? This rascal Joe said, 'Here you are, sir,' and reached him the one on the end of the pole. We all saw the comical twinkle that came to his eye as he removed it gravely, and walked away, eating it, as though he was as hungry as we were."

"Ah," continued Eastman, smiling, "but our appetites suddenly deserted us then."

"But what did he do about it?" questioned Elinor, as she removed the plates, while the platter still retained its self-respect with one small pink slice reposing daintily on its white expansiveness.

"Not a thing," said Jack, "except to see that we got better meals after that. I met the old man about a year ago on the street, and among other things he asked me if I remembered that day. He said he never enjoyed a sandwich so much in his life. Well, this salad looks good. I want you to know my wife's an adept at salad-dressing. Pass the crackers to Eastman, Elinor."

"It does look tempting," assented the guest. "And this is another one of my weaknesses. Truly, Mrs. Young, you must be a veritable witch to strike so surely upon my favorite articles of diet." His fork deposited a generous portion of the salad on his tongue, and he closed his lips over it in pleasant anticipation. Ye gods! What a queer taste! He glanced at Jack, who was just lifting a bite to his mouth.

"Oh, Elinor! Heavens, what a taste!" exclaimed Jack.

"What's the matter?" said Elinor, startled.

"The salad!" said Jack, with a wry face. "Have you tasted it, Eastman?"

"Why, I can't imagine—" Elinor's face was flushed, and she felt ready to cry. "I made it in the usual way. Does it taste bad?"

"Oh, awful! The eggs must have been bad."

"Never mind, Mrs. Young," said Mr. Eastman, pitying the young hostess' confusion. "It is nothing more terrible than rancid oil, and you couldn't help that. All housekeepers have those little contretemps, no doubt. And I for one can manage to exist without a salad to-day." He smiled reassuringly into her troubled face.

"But it can't be the oil, Jack," said Elinor, returning to the question, as she removed the obnoxious mixture to make way for the dessert. "I used some of that you brought yesterday."

"Yesterday?" said Jack, with a puzzled look. "Yesterday? I didn't bring any oil yesterday."

"Why, yes you did. Don't you remember I told you in the morning to be sure to bring me a bottle of salad-oil?"

"I do remember that injunction, dear, but I also remember quite distinctly that I didn't get it, for I thought of it as I came in the door, and said to myself, 'Now I'll catch it,' for I'm always forgetting something. But you never said a word about it, so I escaped that time."

Elinor was staring at him with a puzzled frown. "Jack, you surely brought some oil, for there wasn't a drop in the house, and I used some to make this salad. It was in a round, fat bottle, and I found it in the—"

"What!" exclaimed Jack, as a sudden light broke on him. "A round bottle! Ha, ha! Oh, Elinor! Well, if that isn't a good joke! Oh, Eastman, what do you suppose is in that round bottle?"

"Nothing poisonous, I hope," ventured Eastman, with a startled smile.

"Oh, Jack, don't be silly! What is it?" asked Elinor, with a flushed face.

"Peanut-oil!" answered Jack, with another explosion of laughter. "Peanut-oil for my bicycle-lamp! I went into Grant's as I was coming home last night, and he gave me that bottle to try. And to think you should make a salad out of it!"

Elinor was forced to join in the laughter, though with a rather rueful face.

"Don't look so sober, Elinor," said Jack, after they had calmed down and were drinking their coffee. "I know what you are thinking. You're afraid Eastman won't carry away a very pleasant impression of his dinner with us."

"On the contrary, Mrs. Young," asserted Eastman, with hearty emphasis, "I may truthfully say that I have never enjoyed myself so much in my life!"

A tremulous crystal, waved as water, poured out upon the ground, is your own soul. You may defile it, despite it, pollute it, at your pleasure, and at your peril; for in the peace of those weak waves must all the heaven you shall ever gain be first seen; and through such purity as you can win for those dark waves must all the light of the risen Sun of Righteousness be bent down by faint refraction. Cleanse them and calm them, then, as you love your life.—Ruskin.

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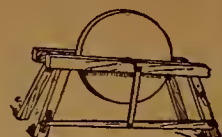
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FOUR



FIVE



SIX

ANSWERS TO PUZZLES OF JULY 1st ISSUE

The Six Traits of Character

- 1—Courageous. 4—Kindness.
- 2—Melancholic. 5—Vain.
- 3—Tactful. 6—Forbearance

The cash prizes are awarded as follows:
Woman's prize, two dollars—S. Louise Hill, Manchester, N. H.

Girl's prize, two dollars—Clara Hopp, Rockford, Ill.
Man's prize, two dollars—C. M. Adams, Davenport, Iowa.

Boy's prize, two dollars—Wayman Hardaway, Warrenton, Ga.

To all others sending in correct answers to the entire six picture puzzles, a copy of the latest and best photograph of Mrs. Theodore Roosevelt was awarded. The prize-winners are:

- Corrie Maddox, Jacksonville, Fla.
- Mrs. Maud B. Little, Ocala, Fla.
- Genevieve Rafferty, Pensacola, Fla.
- Miss Russel Daniel, Jefferson, Ga.

- Mary H. Yanney, Macon, Ga.
- Weyman T. Ward, Watkinsonville, Ga.
- Mrs. James B. Allen, Buford, Ga.
- Mrs. J. H. Peterson, Shepherd, Ga.
- Rosella Board, Hailey, Idaho.
- Hazel Davis, Boise, Idaho.
- Mrs. Susan E. Stevens, Boise, Idaho.
- Mrs. Henry Ellis, Canton, Ill.
- Anna Anderson, Galva, Ill.
- Mrs. Kittie McMichael, Milan, Ill.
- Mrs. H. B. Mars, Rockford, Ill.
- C. M. Brink, Fort Wayne, Ind.
- Mrs. Ella C. Utter, Middletown, Iowa.
- Stella Miles, Riceville, Iowa.
- Clarence J. Reed, Goodell, Iowa.
- Earl Duenbostle, Floyd, Iowa.
- Helen Gibbons, Croom, Md.
- Sarah Harmon, Battle Creek, Mich.
- Mrs. E. H. Parish, Carleton, Mich.
- Roy A. Slick, Lambertsville, Mich.
- Emily Rae, New Baltimore, Mich.
- Mrs. N. D. Peters, Palo, Mich.
- Armenia Thomas, Partello, Mich.
- Clara Micbener, Pigeon, Mich.

- H. H. Spafford, Oviatt, Mich.
- Mrs. C. N. Black, Watervleit, Mich.
- Pearl Chrispen, Hastings, Minn.
- Mrs. Linda Castle, Marshall, Minn.
- Mrs. Sarah M. Applebee, Firth, Neb.
- Nancy Dick, Firth, Neb.
- W. H. Dick, Firth, Neb.
- Mrs. C. F. Vinson, Lincoln, Neb.
- Laura Balis, Waverly, Neb.
- Bessie C. Taylor, Mount Holly, N. J.
- Mrs. J. Harris, Trenton, N. J.
- Mary C. Braden, Bellefontaine, Ohio.
- Mrs. Carrie Snyder, Durant, Ohio.
- Sigel W. Mullenix, Hillsboro, Ohio.
- Etta Simons, Spratt, Ohio.
- Mabel Free, Washington C. H., Ohio.
- Laura Jean Mitchell, Zanesville, Ohio.
- George W. Lomax, Jr., Abbeville, S. C.
- Mrs. W. J. Strawn, Greenville, S. C.
- Chas. Wm. Nicely, Greenville, S. C.
- Arthur Reynolds, Greenville, S. C.
- Mrs. W. J. Lueders, Seattle, Wash.
- W. J. Howard, Ballard, Wash.
- Mrs. J. Dudman, Ballard, Wash.

Wit and Humor

WE SHOULD SMILE

The thing that goes the farthest toward making life worth while, That costs the least and does the most, is just a pleasant smile— The smile that bubbles from the heart that loves its fellow-men Will drive away the cloud of gloom and coax the sun again. It's full of worth and goodness, too, with manly kindness blent; It's worth a million dollars, and it doesn't cost a cent.

There is no room for sadness when we see a cheery smile, It always has the same good look—it's never out of style; It nerves us on to try again when failure makes us blue— Such dimples of encouragement are good for me and you. So smile away; folks understand what by a smile is meant— It's worth a million dollars, and it doesn't cost a cent.

—La Junta (Col.) Republican.

GOOD REASON

"Why are you crying, little boy?" asked the tourist in Texas. "Boo-hoo!" sobbed the youngster, "the cyclone blew down every house in town but one." "What one was that?" "The school-house," answered the boy, between his sobs.—Philadelphia Record.

unfoldin'. I was along that place some time after the campers broke up, an' was attracted by a low musical sound from behind the boulder. Knowin' something o' tunes, I was s'prised to catch the chorus o' one o' the coon songs that had been popular with the campers. It was the one they sing down to the Chicago opera-house, 'Ain't that a Shame?' Ponderin' over it, I crept up on top o' the boulder, an' looked over at some flat rocks on the other side. It was a sight never to fergit. A chorus o' ten rattlers had their tails in the air, an' was poundin' out the song fer all they was worth! I lay there fascinated, an' by ginger, before they got through they done 'The Holy City' an' 'Go 'Way Back and Sit Down' as well as I ever heard 'em done. Kill 'em? 'Twould 'a' been a crime to break up a musical family like that."—Chicago Inter Ocean.

SHE KNEW BETTER

"Here is a man," said the defendant's counsel, with a tremulous voice, "here is a man handicapped at the very beginning of his life. From the time he lay a helpless infant in the cradle to this day, when he sits helpless under the pressure of years and affliction, he has labored under the disadvantage of the name of Abinadab Watts."

He was about to say more, when the plaintiff rose from her seat, and shook a work-worn forefinger in his direction. "I expected I was goin' to hear strange things in this court-room," she cried, with shrill indignation, "but I didn't callate on sech foolish talk as that! There never's been a day in his life that Abinadab's labored, nor thought o' laborin'. He's the most shif'less, lazy—" But here she resumed her seat, owing to a sudden pressure from her relatives in the rear, and the counsel, a little flushed, went on in a somewhat different strain.—Youth's Companion.

AN OMISSION

"Remember, boys," said the teacher, "that in the bright lexicon of youth there is no such word as 'fail.'" After a few moments a boy raised his hand. "Well, what is it, Socrates?" asked the teacher. "I was merely going to suggest," replied the youngster, "that if such is the case it would be advisable to write to the publishers of that lexicon and call their attention to the omission."—The Wasp.

MORE REFLECTIONS FOR A REJECTED MS. AND OTHERS

It's no use crying over spilt ink. Too many books spoil the market. A roving MS. gathers no dross. Spare the style and spoil the paper. Put a minor poet on Pegasus—he'll write like the devil! Fine "puffs" do not make fine books. Take care of the agreements—the publishers will take care of themselves. It's an ill critique which blows no author any good. (For the magazine editor)—Bread I win—Tales you lose. (For Sir Conan)—A blotched plot—never Doyle's!—Arthur Layard, in The Author.

THE OLD SAYING

"These are good chickens," the dealer declared. "If that's true," replied the shrewd housekeeper, "there's no truth in the old saying." "What old saying?" "The good die young."—Philadelphia Press.



The Dog—"By the way Mrs. Cow and the calf are cavorting this morning I should judge they had something to be thankful for." The Horse—"Yes; they just heard Mr. Rube tell his wife that the prodigal son had decided never to come home."

SETTLING THE QUESTION

Booker T. Washington's fund of stories about his race, with which he illustrates the points he makes in his addresses, seems inexhaustible. A Southerner asked him recently, when about to address a Northern audience, to prove to it that the Northerners were responsible for the introduction of slavery into the American colonies. Mr. Washington said that was a large contract, and told the following story to illustrate his view:

"An old colored man had a pig, which he sold one morning to a white man for three dollars. The white man drove off with his purchase, but on the road the pig escaped, and found its way back to Uncle Zeke's cabin. A little later another white man came along, and Uncle Zeke sold him the same pig for another three dollars. On his way home with the pig the second purchaser encountered the first returning in search of the escaped animal. After some wrangling they decided to go back and refer the question to the old ducky.

"Uncle Zeke," said No. 1, "didn't you sell me this pig at nine o'clock this morning?" "Sho I did, massa."

"But, Uncle Zeke," said No. 2, "didn't I pay you three dollars for this pig at twelve o'clock?" "Sho you did, massa."

"Well, then, who does the pig belong to?" "Sakes alive," said Uncle Zeke, "can't you white folks settle dat question 'tween yo'selves?"

A CHEERFUL VIEW

Two men who had been sitting together in the seat near the door of a railway-car became engaged in an animated controversy, and their loud voices attracted the attention of all the other passengers. Suddenly one of them rose, and said, "Ladies and gentlemen, I appeal to you to decide a disputed point. My friend here insists that not more than three people out of every five believe they have souls. I take a more cheerful view of humanity than that. Will all of you who believe you have souls raise your right hands?"

Every hand went up. "Thank you," he said, with a smile. "Keep them up just a minute. Now will all of you who believe in a hereafter raise your left hands also?" "Thank you," he said. "Now, while all of you have your hands raised," he continued, drawing a pair of revolvers, and leveling them, "my friend here will relieve you of whatever valuable articles you may have."—Implementation Trade Journal.



"It doesn't pay to be haughty if you live in an apartment-house." "That's so. The man you snub to-day may buy a cornet to-morrow."

THESE SNAKES PLAYED TUNES

"Yes, sir," said the old plainsman, as he stood before a den of rattlers at the Lincoln Park Zoo, "I don't 'low there's a more interestin' reptile a-goin' than this here same breed. There is those as places the intellect o' the rattlesnake on a low order, an' I don't know as they have as good a workin' brain as a Gila monster or a tarantular, but I do know this: Their appreciation o' the art o' music is profound an' stirrin'. They takes to it like one o' these here Wagner fellows does to a Theodore Thomas concert. An' they are smart to learn, lemme tell you!

"Up in Routt County, Colorado, where I come from, there is most rattle-snakes an' sagebrush an' a few people huntin'. I remember a party o' hunters passin' that-a-way last fall. In the evenin's they set about the camp singin', an' there was some mandolins along. Three or four times the party was scairt out by snakes that crept into camp to hear the music, though they should 'a' known better'n to be, fer there's no harm in a rattler when there's music a-goin'.

"But that ain't the curious part o' the tale which I'm



Mr. Firefly—"It's a shame one can't sit and glow peacefully without the whole fire department coming to bother one."

RHEUMATISM

Cured by Magic Foot Drafts

Don't delay. This is the best time of the year to get rid of rheumatic poisons

Try the Drafts—FREE

Don't take medicine for rheumatism, but send your name and address to the Magic Foot Draft Company, 850-A Oliver Building, Jackson, Mich., and they will send you, on approval, without a cent in advance, a pair of the wonderful Magic Foot Drafts. These Drafts have been worn by hundreds of thousands of people all over the world, relieving more pain last year perhaps than all other remedies combined. It is the only remedy ever sent successfully on approval, because it is the only remedy that actually cures to stay cured a large proportion of cases.



The Drafts absorb through the great pores of the feet the acid poisons of the blood as it passes through the capillaries, curing rheumatism in every part of the body at once by removing the cause. Soothing medicinal agents are at the same time taken up into the blood from the Drafts by these large pores, hastening the comfort which the Drafts quickly bring. If you are satisfied with the benefit received, the Drafts cost only One Dollar. If not, they cost you nothing. We make this offer because we know what they will do. A valuable booklet on rheumatism sent free with the Drafts. Write.

ALLEN'S FOOT-EASE

Shake Into Your Shoes Allen's Foot-Ease, a powder for the feet. It cures painful, swollen, smarting, nervous feet, and instantly takes the sting out of corns and bunions. It's the greatest comfort discovery of the age. Makes tight-fitting or new shoes feel easy. It is a certain cure for ingrowing nails, sweating, callous and hot, tired, aching feet. We have over 30,000 testimonials. TRY IT TO-DAY. Sold by all Druggists and Shoe Stores, 25c. Do not accept an imitation. Sent by mail for 25c, in stamps. FREE TRIAL PACKAGE sent by mail.

MOTHER GRAY'S SWEET POWDERS, the best medicine for Feverish, Sickly Children. Sold by Druggists everywhere. Trial Package FREE. Address, ALLEN S. OLMSTED, Le Roy, N.Y.

[Mention this paper.]

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How to reduce it. Mr. Hugo Horn, 244 E. 60th St., New York City, writes: "I reduced my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it and full particulars in a plain sealed package for 2 cents for postage, etc. Hall Chemical Co. Dept. B St. Louis, Mo.

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\$23,070,500.00 for St. Louis World's Fair

WILL MAKE IT TOWER A GIANT ABOVE ALL OTHER WORLD'S FAIRS. ESTIMATED TOTAL COST OF THE CHICAGO WORLD'S FAIR STRUCTURES, \$7,295,000.

The St. Louis World's Fair
WILL FAR SURPASS
 and Exceed in Every Way the Great
CHICAGO WORLD'S FAIR

Nothing Like Its Display of Wealth, Architecture, Grandeur and Greatness Has Ever Been Attempted Before.

The Human Mind is Not Capable of Conceiving the Vastness of this Display—No Word-Pictures Can Portray It.

More Than Five Hundred and Fifty Cars Were Required to Transport the Necessary Apparatus for the Installation of the Electrical Machinery and Its Accessories.

APPROPRIATIONS FOR THE WORLD'S FAIR

ST. LOUIS AND MISSOURI.—City of St. Louis, \$5,000,000; citizens of St. Louis, \$5,000,000; state of Missouri, \$1,000,000. Total, \$11,000,000.

UNITED STATES GOVERNMENT, \$6,953,000.
 THIRTY-SEVEN STATES AND TERRITORIES have made appropriations, through their legislative bodies, as follows: Ark., \$80,000; Ariz., \$30,000; Cal., \$130,000; Col., \$100,000; Conn., \$100,000; Ill., \$250,000; Idaho, \$25,000; Iowa, \$125,000; Ind., \$150,000; Kan., \$175,000; Mass., \$100,000; Md., \$25,000; Minn., \$100,000; Miss., \$50,000; Mo., \$1,000,000; Neb., \$35,000; N. M., \$30,000; N. J., \$100,000; N. Y., \$100,000; Nev., \$20,000; N. C., \$10,000; Ohio, \$75,000; N. D., \$50,000; Okla., \$60,000; Oreg., \$50,000; Pa., \$300,000; Porto Rico, \$20,000; R. I., \$35,000; S. C., \$5,500; S. D., \$40,000; Tenn., \$40,000; Va., \$50,000; Utah, \$50,000; Wash., \$75,000; W. Va., \$50,000; Wis., preliminary, \$25,000; Wyo., \$25,000. Total, \$3,605,500.

ADDITIONAL FUNDS FOR STATE EXHIBITS have been made by popular subscription to the amount of \$990,000.

TOTAL APPROPRIATIONS by states and territories by legislature and popular subscription, up to date, \$6,107,500. Grand total, \$23,070,500.

ELECTRICITY AT THE WORLD'S FAIR

Incandescent electric-lamps are used, for the most part, for the outside illumination at the Louisiana Purchase Exposition at St. Louis.

The main picture of the Exposition covers a territory of six hundred acres, and is arranged in a setting shaped not unlike a lady's fan. Three courts radiate from a common center. This common center is occupied by a territory known as the Cascades, made up of architectural, sculptural and hydraulic features extending in a curve over a distance of about three thousand feet. Three architectural features, very ornate in design, are placed along this curve, and are connected by a colonnade at the crest of the Terrace of States. The central place of this architectural setting is occupied by Festival Hall, two hundred feet high, while the smaller structures on either side, each one hundred feet high, are known as restaurants. In front of each of these buildings is to be placed a motif from which a cascade of water issues, tumbling over a series of falls, and finally reaching the Lagoon.

The daylight effect here relies on the combination of water-effects with architectural or sculptural settings.

At night it is intended that this whole territory of the Cascades should be treated simultaneously with light-effects. The intention was not to simply trim structures and objects with lights, but that the entire territory should be built up, as it were, of light itself. In the same manner the entire territory of the Cascades will partake of the color of light as applied by rendering the buildings as if they were composed entirely of light itself, and not simply the effect of light.

models correct in every detail of the ships they represent, will go through every known naval maneuver. The miniature warships are to be about twenty feet in length. Each will have its own electric outfit for propulsion, steering, firing, signaling and lighting, and will be governed by a man seated in the interior, who, although invisible to an audience, can himself see everything going on about him as perfectly as the commander on the bridge of a real man-of-war.



ELECTRICITY PALACE, 525 BY 730 FEET, WITH COURT IN CENTER—COST \$399,940

One effect is to make the entire territory the color of an amethyst crystal, while at the same time the Cascades will appear as illuminated by vari-colored lights for projector-lamps. At another time, when the entire hillside is an emerald color, the water will take on a phosphorescent hue. Again, when the entire Cascade territory appears incandescent, the waters of the Cascade will appear as sheets of molten silver.

The lights are ever changing, not as though some operator was simply turning a crank to produce recurring results in automaton fashion, but certain effects, prearranged, will be arranged for each evening, or portion of an evening, and the effects dissolved from one effect into another, according to program.

The Exposition has a power plant of a capacity of ten thousand six hundred horse-power, and in addition has rented ten thousand horse-power.

NAVAL BATTLES IN MINIATURE

A subject uppermost in the mind of every large nation to-day is its navy. The management of the Louisiana Purchase Exposition recognizes this, and one of the most interesting, and at the same time most instructive, features will be the United States Naval Exhibit.

On a considerable sheet of water our navy will be shown in peace and at war. A fleet of thirty vessels,

Every type of ship in our navy will be represented. The large battleships, such as the "Indiana," "Massachusetts," "Oregon," etc.; the cruisers "New York," "Brooklyn," etc.; the torpedo-boats, the torpedo-boat destroyers and even the submarine boats.

An exhibition of the German navy, based on a similar general plan, was successfully given in Germany last year.

The display in St. Louis will be intensely interesting, inasmuch as it is proposed to reproduce in actual detail the Battles of Manila and Santiago. Mountains and hills, harbors and forts in the distance, will form a realistic background, and the effect will be that of viewing a real naval engagement from a great height. Let us see, in imagination, what one of the St. Louis performances looks like.

The first part of the program shows the navy at drill and maneuvers. The commands are given from the flag-ship by signal-flags displayed at her masthead. The ships show answering signals, and obey the orders as given. A faithful representation of target-practice with the large guns follows. By an ingenious device the floating target, over a hundred feet away, shows where the shell is supposed to have struck by a puff of smoke after every discharge of the guns. Small torpedoes splash from the bows of the torpedo-boats and throw columns of water thirty feet in height up into the air near the target. The submarine boat dives, and after a disappearance of a few minutes makes known its whereabouts by a tremendous waterspout produced by the torpedo that it has launched unseen.

Instructive as the performance has been so far, it is much surpassed in interest by the second part, the battles.

The eye of the spectator has had time to adjust itself to the size of the ships and scenery, and the surroundings seem real. The fleet slowly steaming in again, with smoke pouring from every funnel, establishes a blockade of the coast. A sailing vessel trying to break the blockade under cover of the land forts' guns is sunk. Then comes an attack by the fleet on the forts. One after another the enemy's land-batteries are silenced. The last and most exciting part of the program now follows—the attempted escape of the enemy's fleet from the harbor and its destruction after a fierce running fight.

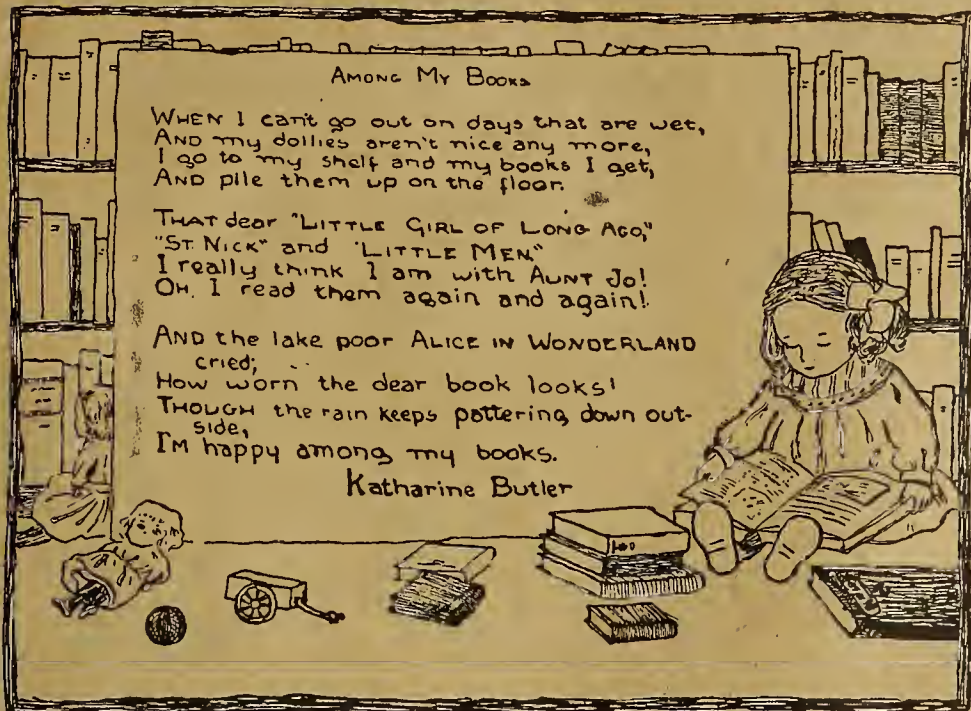
ST. LOUIS UNANIMOUS CHOICE

The city of St. Louis was unanimously chosen as the place for holding the World's Fair by a convention of delegates appointed by the Governors of the States and Territories within the original Louisiana Purchase. St. Louis is the fourth city in the United States in point of population. It is noted for its beautiful residence districts. It leads the world in many lines of industry.



VARIED INDUSTRIES PALACE, 525 BY 1,200 FEET, WITH CENTRAL COURT—COST \$604,000. CORNER ELECTRICITY BUILDING

The Young People



AMONG MY BOOKS

WHEN I can't go out on days that are wet,
AND my dollies aren't nice any more,
I go to my shelf and my books I get,
AND pile them up on the floor.

THAT dear "LITTLE GIRL OF LONG AGO,"
"ST. NICK" and "LITTLE MEN,"
I really think I am with AUNT JO!
OH, I read them again and again!

AND the lake poor ALICE IN WONDERLAND
cried,
How worn the dear book looks!
THOUGH the rain keeps pattering down out-
side,
I'M happy among my books.

Katharine Butler

—St. Nicholas.

"COUSIN MATILDY"

BY UNCLE THEODORE

LONESOME? Down-hearted? Wall, wall! That 'minds me what Cousin Matildy uster say, 'I tell you, Theodore, lonesome young folks be the lonesomest bein's on airth when they've nothing else ter work at.' She explained it this way:

"Young minds, bein' nimble-like, keep goin' 'round an' 'round an' 'round in the lonesome groove, till somebody's jest got ter yank 'em out o' the rut, chirk 'em up, an' give 'em 'apples o' gold in pictur's o' silver' ter think on."

"Ever know Cousin Matildy, John? No? "She was ginerly reckoned an ole woman, bein' 'bove ninety year, but land! there wa'n't a bigger favorite 'mong the young folks than she uster be. They jest adored her, ef she was wrinkled an' trembly.

"From the days when bein' nigh sixteen she taught skule in Deacon Skimpy's deestrick, clar up ter the time when she couldn't go without crutches, bein' so crippled with rheumatiz, an' her husband an' childern, 'cept her youngest darter, all in the meetin'-house buryin'-ground, she had more young friends than anybody.

"All the gals uster tell her their love-troubles, an' ef anybody had a sick youngster, or couldn't make a new dress out o' an old one, or build a spring bunnet out o' the remains o' last year's finery, or ef there was a bride-cake wanted fer a weddin', Cousin Matildy could allus show folks jest what ter do; an' land alive! how she would hearten up the most distressfulest bein' with her warmin' smile an' her soft words.

"She never hurt nobody; let do what they would, or whatever scrape they was in, she'd somehow ruther light 'em out.

"I jest want ter tell ye, Cousin Matildy never grumbled at nothing. She never went whinin' 'round 'cause the wind was east or 'cause 'twa'n't, or 'cause she was lonesome or times was hard.

"Ef anybody had 'a' seen trouble, she had, o' the rale sort, too, an' she needn't ter go borrherrin' any or 'maginein' she was afflicted an' mis'able.

"She allus had jest the winsomest way with her, an' I tell ye, John, she could be a companion fer anybody, from the Queen o' England ter the leetlest piccanniny. More'n that, nothing mean nor sneakin' dast show itself nigh her!

"Many a young feller's braced up, an' left off swear-words, an' quit usin' ter-backer, an' made hisself a straight gintleman, onct he knew Cousin Matildy. She never preached at him, nuther; jest treated him like he was bound ter be what we know'd he could be—a gin-ooine, hon'able, clean-livin' man.

"But fer all that, Cousin Matildy saw a lot o' things in folks that nobody else know'd was there. I tell ye, she could make a gal quit unworthy companions, or a young feller seek better society, an' they'd never mistrust 'twas her doin's, nuther; they jest thought they was havin' their own way 'bout things, an' every time their way was her'n, too.

"I tell ye, John, it seems as ef Cousin Matildy had a way o' makin' low-down things look meaner'n anybody you ever seen, an' she'd make good things look the beautifulest, the desirablest, the pertiest o' all.

"Her eyes jest seen straight thro' a lie, an' nobody would deceive her, 'cause they know'd they'd git kothched right sudden, leastways have something they was 'shamed of when she found out.

"You 'member Emmeline Horner, an' the time when she tuk ter runnin' out nights with some low-down companions?"

"Emmeline's mother was worried ter death, an' told Cousin Matildy all 'bout it. Fust we know'd, Cousin Matildy made a party, an' axed the nicest young folks in town, an' the preachers an' teachers, an' had a orkistry an' a lot o' singers. What a evenin' that was! Everything was so lively, nothing stuck up a bit; jest a rale jolly time, an' lots o' good things ter eat, an' everybody sayin' nice things ter Emmeline, an' askin' her ter elocute fer 'em. An' ef you b'lieve me, from that very same night Emmeline let that down-draggin' set alone.

"Her ma told Cousin Matildy that that night was the turnin'-p'int, an' Emmeline seen the difference twixt 'up an' down' fer the fust time in her life.

"Then, don't you rickollect that Sidney Long who onct was goin' down-grade so fast? Wall, Cousin Matildy found out he was orful fond o' music an' a jolly crowd, an' she coaxed Suzanna Swift an' Polly Arthur an' Billy Leshner ter start a young folks' band, an' had 'em meet ter her house three nights a week till they got a-goin'. Suzanne played fust fiddle, Margery Ames played the pianny, an' Billy tuned the banjo, an' Sidney the mandolin, an' I disremember all the rest on 'em; but bimeby, when it came long winter evenin's, onct a week they met ter each other's houses, an' had music an' games, an' onct a month perlite refreshments.

"The next year, when Cousin Matildy had a fifty-year birthday, them same young folks got a s'prise on her, an' give her the comfortablest rocker you ever seen, an' Sidney Long made the presen-shun speech.

"I tell ye, John, it do beat all what good companions can do fer folks while they's growin' ter machurity.

"An' more, I hain't telled ye all, nuther, how Sidney Long an' Margery Ames got married further on, an' moved to Nebraska; an' years after, when they had growed-up boys an' gals o' their own, an' Cousin Matildy went asleep one night an' nobody could wake her up, Sidney Long wrote the sympathizest letter ter her darter, tellin' all that Cousin Matildy had done fer him a-startin' him in the good way.

"Somehow, John, when I get ter thinkin' o' that woman, a mist hangs front o' my sight, an' my ole heart gits thumpy an' warm, an' I wished there was more gals growed up ter be like Cousin Matildy."

WHAT THE PLODDERS ACCOMPLISH

If we were to examine a list of the men who have left their mark on the world we should find that as a rule it is not composed of those who were brilliant in youth, or who gave great promise at the outset of their careers, but rather of the plodding young men who, if they have not dazzled by their brilliancy, have had the power of a day's work in them; who could stay by a task until it was done, and well done; who have had grit, persistence, common sense and honesty.

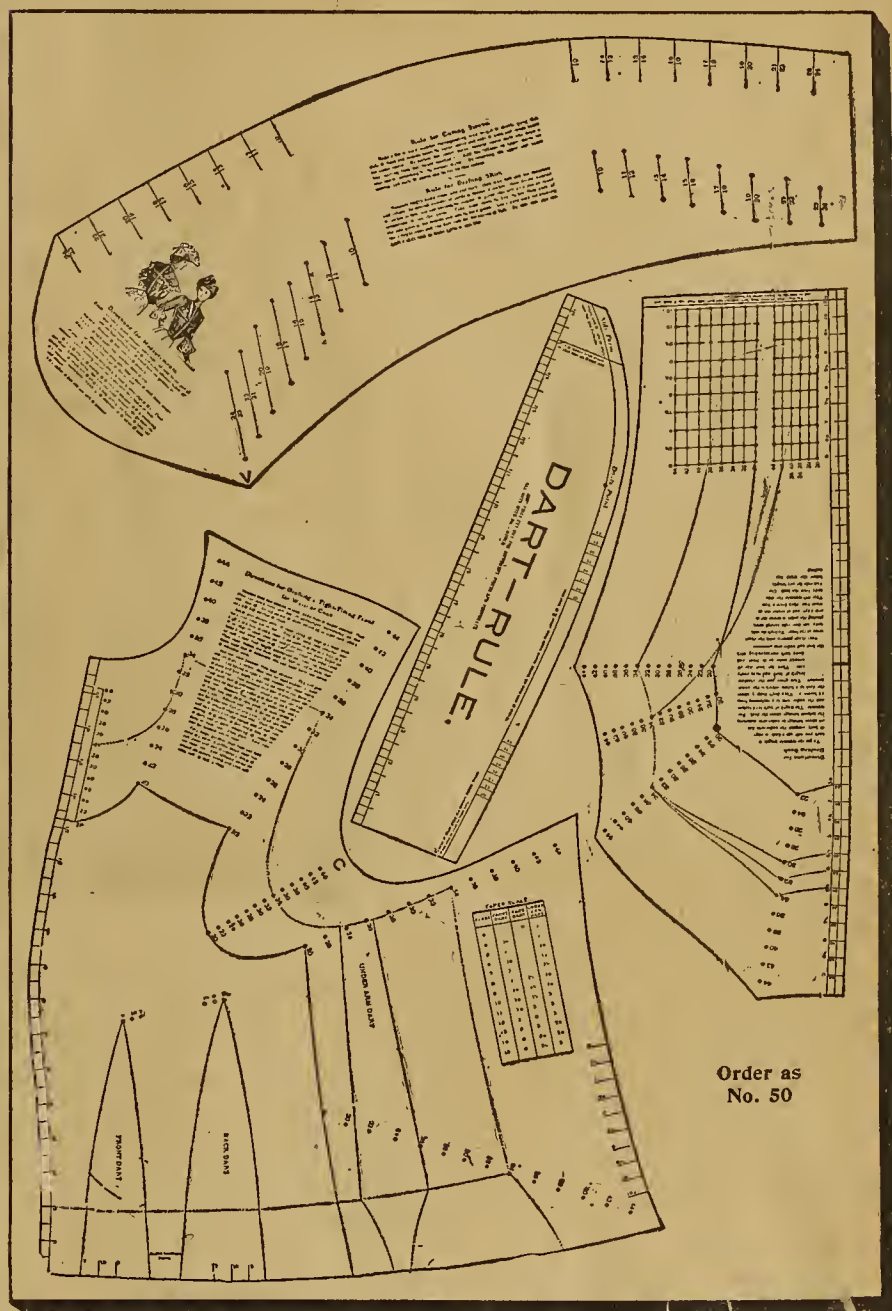
It is the steady exercise of these ordinary, homely virtues, united with average ability, rather than a deceptive display of more showy qualities in youth, that enables a man to achieve greatly and honorably. So if we were to attempt to make a forecast of the successful men of the future, we should not look for them among the ranks of the "smart" boys, those who think they "know it all" and are anxious to win by a short route.—The Religious Telescope.

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That Anybody Can Use

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for \$5.00 each, but you can get it FREE

It is equal to any \$5.00 system sold anywhere,
and this same system has retailed the country
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Farm Selections

BACTERIA

BACTERIA, or germs, are usually spoken of as antagonistic to the welfare of mankind. This is a popular error. If some species or variety of a certain group of organisms is injurious, it does not follow that the whole group is injurious. Solanaceæ, an order of the vegetable kingdom, includes the deadly nightshade, jimson and other poisonous plants, as well as the potato and tomato, which are used extensively as food-products. But man is apparently more impressed by his antagonist, and since various disease-producing bacteria have been frequently spoken of in various periodicals, the hasty conclusion has been that all bacteria are injurious. However, our fathers and our forefathers should not be unduly criticized for their ignorance of bacteria, for twenty-five years ago bacteria scarcely received a mention in any of the institutions of learning. Only the advanced medical colleges provided for instruction on disease-germs twenty years ago. A decade ago very few agricultural colleges provided for bacteriological instruction, because it was thought that only physicians required a knowledge of bacteria; but now practically all institutions of learning have well-equipped laboratories for the thorough investigation of these friends and foes of man; for from the recent investigations it is known that upon a knowledge of their functions depends the future progress of dairying, agriculture, preservation of foods, and many other industries.

WHAT BACTERIA ARE.—Bacteria are plants. Although they were formerly classed as animals, it is now universally conceded that they are plants. They are single-celled and of simple structure, being composed almost entirely of protoplasm; they differ from higher plants in that they contain no chlorophyl (green coloring-matter). They resemble more closely the yeasts and molds. There are many different varieties of bacteria; about twelve hundred different kinds have been isolated and studied, and new varieties are being found every day.

SIZE.—Bacteria are very small, being invisible to the naked eye. It would take about ten thousand average-sized bacteria placed end to end to make an inch in length, or about one and one half millions in a cube to make a mass large enough to be seen with the unaided eye.

REPRODUCTION.—It is to their rapid reproduction that bacteria owe their wonderful influence in Nature. They reproduce by simple division of the parent cell. The rate of multiplication depends on the food-supply, environment and species. Some of them under favorable conditions divide, thus doubling their number, in twenty minutes; others in three or four hours. Another method of reproducing or propagating is by spores. Spores may be likened to seeds of higher plants, although they are not identical. The spore is very resistant to external injurious influences. Disinfectants of sufficient strength to destroy bacteria are usually not destructive to spores.

WHERE FOUND.—Bacteria are omnipresent. They are in the air we breathe; in the crust of the earth; on trees, grass, hay, flowers, fruit, vegetables; in the water we drink; in our food—in fact, they are everywhere, except in the interior of the earth and the upper layers of the atmosphere.—From Bulletin No. 117 of the Kansas Experiment Station.

A Free Trip to the Seashore!

ANY BOY CAN GO



ARCHIE EADIE sells THE SATURDAY EVENING POST in a small town in New Jersey. One morning last summer he eagerly watched a crowd of people boarding an excursion train for the big camp-meetings at Ocean Grove and wished that he was going with them. He had a little more than enough money for car-fare, but nothing for board and spending money. Then an idea came to him. He wrote to the publishers of THE POST to add 100 copies to his order for that week and to send them to him at Ocean Grove. Two days later he was among those who boarded the excursion train.

When he got to Ocean Grove he found his copies waiting for him and started at once for the beach with a bundle of them. The knowledge that unless he sold the copies he would not have money to pay for his board gave extra vigor to his work. Up and down the boardwalk, into the pavilions, on the hotel porches and along the streets he went, offering the magazine. Wherever there was a crowd there was Archie. Late in the afternoon he went to the boarding-house and engaged board for a week, tired but happy, for he had almost enough to pay the bill.

Before the end of the week he received a check for \$5.00, one of the cash prizes offered monthly to THE POST boys. He wrote for 50 extra copies for the next week. These he readily disposed of and decided he would stay a few days longer. At the end of that time he returned home, sunburned and happy, with enough money left to order his next week's supply for "home consumption." Archie is 12 years old. He writes: "That way of going to camp-meeting suits me all right."

Any boy can sell THE SATURDAY EVENING POST after school hours and on Saturdays. **No money required.** We send ten copies free the first week. These supply the capital for the next week. Write to-day for the free copies and booklet showing photos of successful boys and describing their methods.

Don't be afraid to try it. If 6000 boys are making money this way, YOU can do the same.

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A GOOD WATCH FOR A LITTLE OF YOUR TIME. See Page 7

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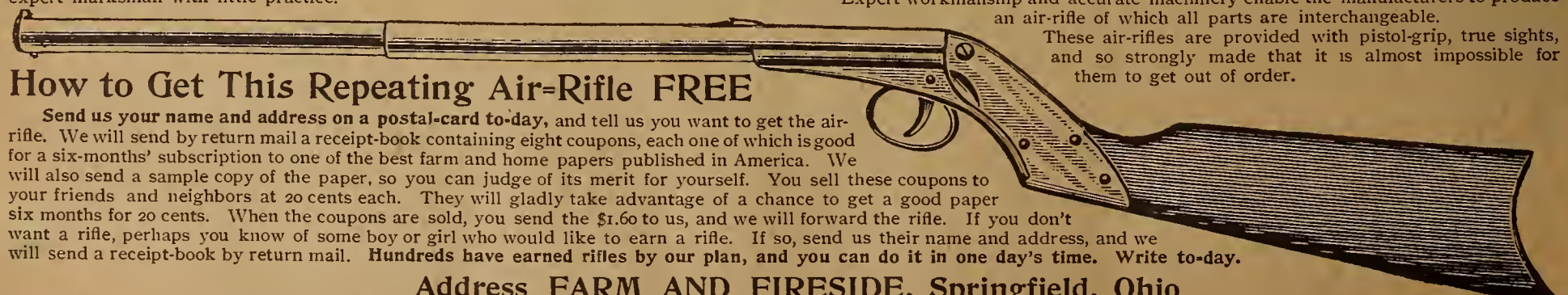
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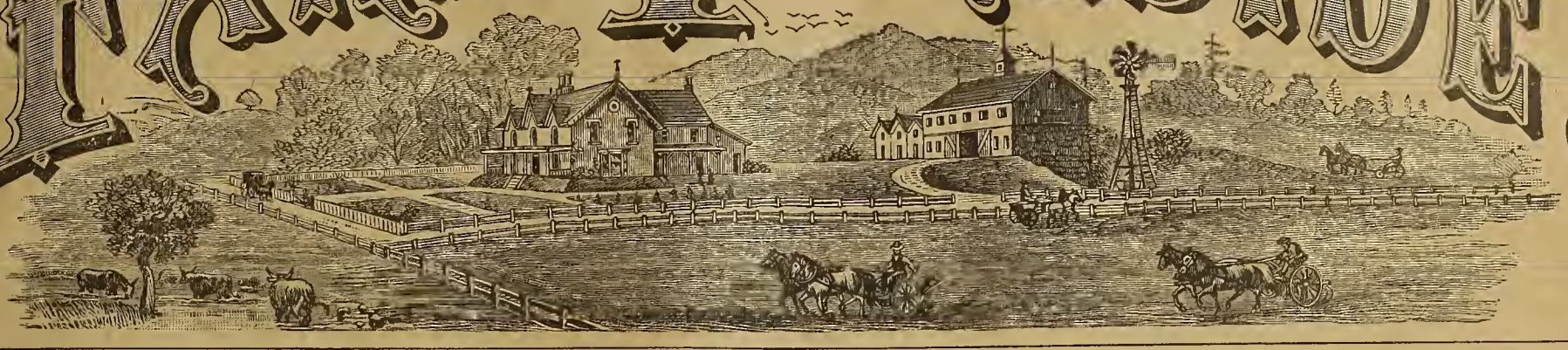
Send us your name and address on a postal-card to-day, and tell us you want to get the air-rifle. We will send by return mail a receipt-book containing eight coupons, each one of which is good for a six-months' subscription to one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 20 cents each. They will gladly take advantage of a chance to get a good paper six months for 20 cents. When the coupons are sold, you send the \$1.60 to us, and we will forward the rifle. If you don't want a rifle, perhaps you know of some boy or girl who would like to earn a rifle. If so, send us their name and address, and we will send a receipt-book by return mail. Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day.

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Decorating Farm-Home Grounds

By GEORGE R. KNAPP

WHILE there has been a wonderful improvement of late years in the appearance of the grounds around farm homes, there are still too many places devoid of adornment. Admitting all that might be said in excuse for this lack of improvement, such as expense, labor, and mainly lack of time, there still seems no good reason why so many farm homes should be without exterior adornment when the cost for it in time or money is so trifling.

I do not advocate setting out large and expensive trees or rare shrubs unless one is able to have these luxuries, and can give the time necessary to grow them in perfection; but why, when the more common shrubs may be bought for from twenty-five to fifty cents each, and vines at the same cost, should any one begrudge this small expense and the labor of setting out and caring for the shrubs and plants involved?

A few years ago a friend bought a small farm at the usual price for such property in the section where it was located. The buildings were in fair condition, but there were no fences between the farm proper and the dooryard, nor between the farm and the roadside. As a result, stray cattle pastured in front of the veranda, and the fowls helped to make the place look more like a barn-yard than a dooryard.

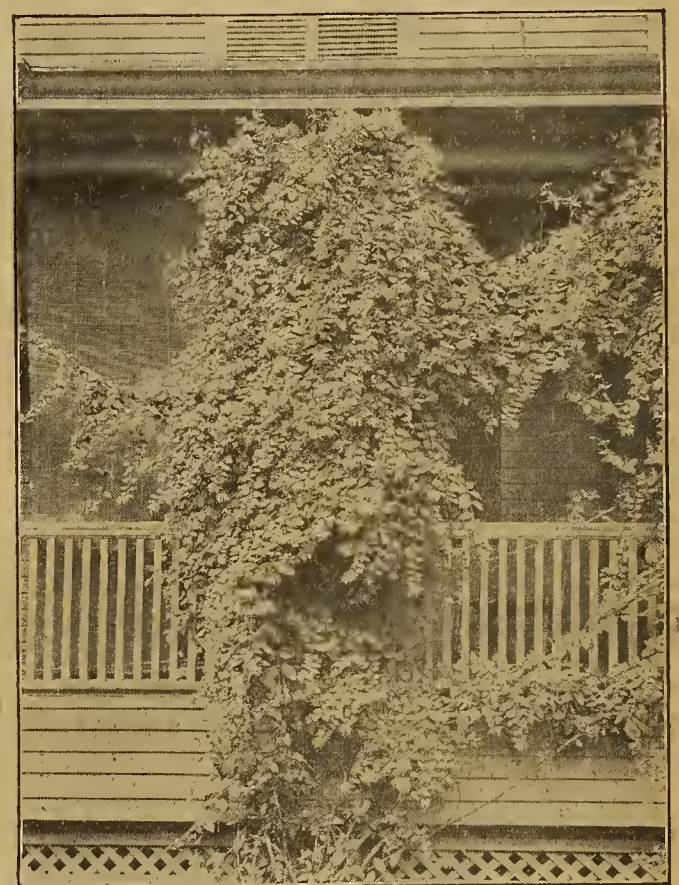
My friend soon changed this state of affairs, and in three years had a good lawn, not a portion of the meadow as before, a California-privet hedge between the yard and the road, a wire-netting fence between the lawn and the farm proper, and shrubs were placed properly on the lawn, generally in masses. Vines climbed over the porch, and altogether the place took on a "homey" air refreshing to see. The farm was kept up about as the former owner had done, the main expense being placed on the grounds immediately surrounding the house. Roughly figured, the money cost was probably in the neighborhood of twenty dollars, say an expense of fifty dollars including labor. Here is the sequel: Last spring this place was sold for nearly six hundred dollars more than my friend paid for it three years ago. As circumstances made it desirable that it be sold as soon as possible, it is plain, to my mind at least, that the attractiveness of the home

grounds brought not only the increased price, but the quick buyer. It does not follow, of course, that this result can be brought about in all cases, and the incident is mentioned merely to show the effect of such improvements on the minds of buyers when a place is put on the market. Most buyers are looking for a home, and they not only appreciate such improvements as I have mentioned, but are quite willing to pay a fair price for them, and in many cases more than their original cost.

It is by no means necessary or desirable to crowd the lawn with trees and shrubbery; indeed, one of the first principles of correct landscape-gardening is to reserve a wide expanse of lawn, placing the shrubbery mainly in masses in corners. This being the case, the expense for lawn-adornment is very small. If vines are used—and by all means they should be—the expense is increased but slightly, for enough good honeysuckle-vines, for example, may be bought for a dollar to furnish after a very few years all the blossoms and screen desired for a porch of considerable length. The illustration shows a specimen of Honeysuckle Monthly Fragrant four years from planting. This is one of the best vines for the veranda, because it is entirely hardy, has no insect enemies, is nearly evergreen, and blooms at intervals nearly all summer. It grows rapidly, and if trained over a wire trellis rather than twine its tendrils may be sent in any desired direction, and thus a single vine made to cover a large space. Fairly rich soil, good mulching with manure in the late fall, and a good supply of water, are all that is required to enable this variety to give one full satisfaction. I am not familiar with any climbing vine which will give greater satisfaction, all things considered. Others are more profuse bloomers, perhaps, and many grow more densely, but for a clean, dainty, yet strong and healthy vine for any purpose where a vine may be used I hold it without an equal. Send a dollar to some nurseryman who advertises in this paper, and ask him to send its value in Honeysuckle Monthly Fragrant vines for planting in October.

Among the attractive shrubs at a low cost suited to farm grounds are the varieties of syringa more commonly known as lilac. While these flower mainly in May, they are so attractive during their season of bloom, so clean in foliage, so free from insect enemies, and withal so hardy, that they deserve a place on every farm-home grounds. Some of the varieties of later introduction are especially desirable, and to one familiar only with the old-fashioned purple sort will seem like a new class. If asked to select three of the best of these new sorts, I should choose Josika because of its fine dark green foliage and beautiful purple flowers, and also for the reason that it blooms after nearly all other sorts have done. Princess Alexandra, with its large panicles of pure white flowers, is another of my favorites. Then I have an especial fondness for the variety Villosa, which has large branching panicles of flowers which are purple when in bud, changing to white when open, and which are very fragrant.

For other spring-blooming shrubs I would advise forsythia, with its golden blossoms; Spiræa Van Houtte, very hardy, and bearing masses of large white blossoms, and the dwarf double-flowered red almond, which bears its blossoms in May, before the foliage of the plant appears. For flowers in June the varieties of wiegela and of syringa (properly Philadelphus) will furnish an abundance, while in July we will need to depend largely on some of the spiræas, such as Collosa Alba, white; Billardi, with blossoms of rose-color, blooming nearly all summer, and Bunalda, a dwarf sort with rose-colored blossoms. In August and September the althæas will furnish bloom which will be attractive if the following varieties are selected: Totus Albus, white; Rubra Pleno, double red, and Leopoldii Flore Pleno, large double flesh-colored blossoms. Among althæas the purple sorts should be avoided, as the shade of color is not attractive. Then for fall blooming we have the favorite Hydrangea Paniculata Grandiflora, than which no better shrub grows. Its immense panicles of white are very attractive to



HONEYSUCKLE MONTHLY FRAGRANT

all who see them, and as the plant is entirely hardy it ought to be in every yard both in town and country.

In this selection we have plants furnishing bloom from May to late September, and all of them inexpensive, hardy and easy to grow.

If one will venture among the hardy perennials or hardy herbaceous plants they may add many desirable sorts to the collection, and at very small cost. One advantage of this class is that they need little care, and when once established will bloom year after year, increasing in size and beauty. One of the best of this class for a specimen-plant to stand by itself on the lawn, as shown in the illustration, is Yucca Filamentosa. It is almost entirely hardy even in the Far North, and nearly evergreen. As will be noticed, the plant is quite tropical in appearance, and the large bell-shaped flowers are borne on tall stalks. It blooms in July, and continues to do so nearly all summer.

The achillea, or the well-known yarrow, is another hardy herbaceous plant suited to any lawn, but especially good along the border because of its low habit. The blossoms are red, white and yellow, according to variety, and are in season from June to August. Campanula, dwarf plants blooming from May to September, according to variety; the rudbeckia, with its midsummer and early-fall display of bright yellow bloom; Platycodon Grandiflorum, bearing large blue flowers in June and July, and caillardia, with showy blossoms of shades of yellow or purple shown in early summer and continuing until fall, are a few of the many other desirable hardy herbaceous plants well suited to the farm-home grounds. All are easy to grow.

Reference is made to only a limited number of classes and of the more common ones—common in the sense that they are well known—simply to encourage those who have been lax about the adornment of their home grounds to make a start this fall.

COME TO THESE SCENES OF PEACE

Come to these scenes of peace,
Where, to rivers murmuring,
The sweet birds all the summer sing,
Where cares and toil and sadness cease.
Stranger, does thy heart deplore
Friends whom thou wilt see no more?
Does thy wounded spirit prove
Pangs of hopeless, severed love?
Thee the stream that gushes clear,
Thee the birds that carol near,
Shall soothe, as silent thou dost lie
And dream of their wild lullaby.
Come to bless these scenes of peace,
Where cares and toil and sadness cease.
—William Lisle Bowles.



YUCCA FILAMENTOSA

FARM AND FIRESIDE

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When renewing your subscription do not fail to say it is a renewal. If all 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.

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Mr. Greiner Says:

AMERICAN FORESTRY.—Does such a thing exist? The forty-four members of the Agricultural Society of Berlin, Germany, who have been traveling through the United States to study the present status of American agriculture do not seem to have a very high opinion of our American forest-policy, and only repeat the prediction which earlier German visitors have made some years ago; namely, that some day in the near future Germany will be selling lumber to the United States. We are cutting our timber recklessly. Germany is saving hers, and has been planting systematically for generations. Lumber, even right here in this center of the lumber trade (Tonawanda, N. Y.), is getting to be so expensive that it is often a question whether we can afford to build houses. It does seem to be high time to begin planting forests, and any farmer having cheap land can do it. If he will devote a few acres to forest-tree culture in the right way, selecting any kind of fast-growing tree—such as pine, black walnut, oak, linden, or even poplar—he may double or treble the value of his entire farm and greatly increase the revenues from it in the course of ten or fifteen years, and all this without great expense or effort. Why not make a start now?

FRIENDS OR FOES?—A Michigan reader accuses me of "seeming to have a spite against all birds in general, and the common robin in particular." He should guess again. The fact is that I am a great lover of birds, and of all harmless creatures in general. I have befriended them in every way possible, and have written many a line in their defense. I allow no shooting on my premises except in emergencies; no destruction of birds' nests; no killing of any harmless creature, be it frog, toad, snake, rabbit, owl, crow, or any other bird, large or small, unless in rare cases when it seems absolutely necessary for the protection of crops. Sentiment is one thing, common sense another. I try to strictly adhere to the latter, yet giving to the former every benefit of doubt. I go so far as to protect weasel and skunk so long as they stick to their natural (beneficial) food-habits, and let my poultry and poultry-products alone. I protect the English sparrow, and will do so until this bird becomes much more destructive on my premises than it has proved thus far. The robin comes under this general rule of treatment. It finds protection just so long as I can possibly get along with it. The protection is withdrawn when the bird becomes a serious pest and a nuisance. What we must do in the first place, in dealing with birds and all other animals, is to throw prejudice aside, and try to ascertain the cold, clear facts.

THE ROBIN IN PARTICULAR.—The robin question is undoubtedly one of much local bearing. I will gladly admit that this bird, as the harbinger of spring, has a warm place in our hearts. In many localities it is a harmless, perhaps a useful, creature, and withal decidedly interesting everywhere. Our Michigan friend says: "Here in the Michigan fruit-belt the robin is considered one of the greatest helps to the horticulturist. They have been carefully protected, and are encouraged to nest in every orchard and garden, until they have become almost as tame as chickens. No other bird will gather more worms, caterpillars or bugs. The state entomologist of Nebraska affirms that the average robin eats seventeen quarts of caterpillars or their equivalent in one season, and that nine out of

these seventeen quarts are ordinary cutworms." How different in my own locality! Here the robins are the greatest pest the fruit-grower has to contend with. Cherries, sweet, and especially sour, are one of our local money-making crops. The vast hordes of robins now leave to the grower but a small percentage of his crop, and not that unless the cherries are promptly gathered before they are fully ripe. The birds have stripped a large block of June-berries for me almost to the last berry within two or three days. They take the best strawberries and a large proportion of our blackcap raspberries. For some years they have even eaten the pears off some trees, and plums, peaches, etc.; and all this in spite of the fact that we have great quantities of mulberries, both white and black, which the robins are said to prefer to cherries, but which fact does not hinder them from taking the other fruits just the same. In consideration of our local conditions, the advice given in the last issue of the "Farm Journal," "Don't begrudge the few cherries the birds get. Plant more trees," seems childish in the extreme—built on theory rather than practical experience. Plant more cherries when we have whole groves of them and then can't get the fruit? The truth of the matter is that we have disturbed the balance of nature by furnishing safe retreats and hiding-places to robins, and induced them to breed and multiply immoderately. We have to counteract this by withdrawing protection from them, or else suffer; and self-preservation is the first law of nature. According to the best estimate I can make, I have no less than two thousand robins on my home place (twelve acres). Where do they get the eighteen thousand quarts of cutworms? Thorough cultivation about exterminated the cutworm on my place years ago. I doubt that there are three cutworms to each robin on the place. I don't usually wait for birds to rid my trees of caterpillars or my soil of cutworms. But wherever the robin is not actually a pest, I join in the admonition. "Don't rob robins' nests. Don't kill birds wantonly, or without some purpose or justification."

THE CHINCH-BUG DISEASE.—The Ohio Experiment Station continues its efforts in the direction of ridding the farmers' fields of the chinch-bug pest. Again, as in former seasons, the station distributes the fungus of a fatal chinch-bug disease, so that every farmer of the state who applies for it may introduce this disease into his bug-infested fields. This disease is very infectious, and is easily transferred from sick, or even dead, bugs to living ones. The fungus develops most rapidly in wet weather. No immediate benefit will be derived by distributing it during dry weather, but as it retains its vitality for a number of months, it may start an epidemic of the disease long after its distribution upon the approach of suitable weather. An innovation has been started in the form in which the fungus is sent out by the Ohio station, which was done in past seasons by means of dead or living insects. This year the fungus has been grown in a mixture of corn-meal and beef-broth, which is a simpler and cheaper method of cultivating and distributing it to the farmers of the state than in the old, or natural, form. Of course, only a small quantity can be provided to each individual farmer, and this should be used to the greatest advantage. Collect a number of bugs, and confine them together with a small portion of the fungus material finely divided in a tight wooden box containing a thin layer of earth in the bottom. Supply the imprisoned bugs with fresh corn-stalks as often as necessary, and keep the contents of the box moist by sprinkling water over them. As bugs show evidence of disease, distribute a part of them over the fields, and supply their places with fresh bugs. Keep up this operation until a good number of fungus-covered bugs are distributed over the worst-infested areas. If by chance the boxes become foul, they should be carefully cleaned and thoroughly aired. Or you may simply crumble up the material finely, and distribute it where the bugs are most numerous, preferably in damp places, such as under grass and fallen corn-stalks. A few of the fungus-covered bugs may be preserved in order to start the infection anew next spring.

PLANT-LICE IN FRUIT-PLANTATIONS.—In many sections of New York State young fruit-trees are this year badly infested with plant-lice. Even prospective good crops of apples have been badly injured and all but ruined by the attacks of aphides—a rather unusual occurrence. I have not observed an unusual number of plant-lice in my own orchards, nor in those of my immediate vicinity, but a patch of Wilder currants has been and still is very seriously infested. The leaves are badly curled up, and look yellowish or spotted, giving to the entire block of bushes an unnatural and diseased appearance. There was about half a crop of fruit on them, and the individual berries were as large and fine as ever, and now that they are gathered I will be able to trim up and clean up the plantation, and then apply the proper remedies. Undoubtedly, however, the plants have suffered much, and their vitality and fruiting capacity for another year will be greatly reduced. Cornell's "bugman," Professor Slingerland, in a circular just issued, says: "The standard insecticides used in fighting plant-lice and other sucking insects are kerosene-emulsion, whale-oil soap and tobacco decoctions. For apple plant-lice whale-oil soap should be dissolved at the rate of one pound in five or six gallons of water. One nurseryman reports that he finds a sulphur-tobacco soap very effective. Tobacco-stems, to be found in cigar-factories, can be steeped or soaked in water (about one pound of tobacco in two gallons of water), and an effective decoction thus made. Kerosene-emulsion should be made by the usual formula of one half pound of soap, one gallon of boiling water and two gallons of kerosene, and then diluted with about seven parts of water. Be sure to get a good emulsion by churning or pumping the dissolved soap and kerosene together for several minutes. Doubtless a ten-per-cent kerosene-emulsion made through a kerosene-water pump would also kill the lice. Nurserymen often bend over the infested branches, and dip them into a pail or pan of the mixture, and this would be the most effective method of treating a recently set orchard." The currant seems especially subject to the attacks of plant-lice, but, being low, we can treat it by dipping, as advised by Professor Slingerland for small orchard-trees. But die they must.

Mr. Grundy Says:

SENSIBLENESS.—I was in a hardware-store a few days ago, and a hustling German farmer entered. The proprietor shook hands with him, and asked about the prospects of his crop. Among other things he asked how he was getting along with his haying.

"My hay is all in der barn und stack," replied the farmer.

"Well," said the proprietor, "you are lucky—one of the luckiest men in this section. More than half the farmers had hay down when the storm came on yesterday. There will be lots of damaged hay around here. Many that didn't get caught by the storm of last week got caught yesterday. Yes, sir, you are a lucky man." He then stepped out to speak to a customer.

The farmer turned to a clerk, and with a grimace said, "He say dot I am lucky. Dere was no luck about it—it was just blain sensibleness! I vent afder dot hay, und I got it. Does he tink dot I was so foolish as to cut grass ven it was looking like rain all about? I cut ven it look like fair vedder, und den I go afder dot hay like a steam-engine, und ged it. Den he say dot I was lucky! Ha, ha!"

Sure enough, it was merely plain "sensibleness." For some time the weather has been squally. Some farmers watched the indications closely, and when it was plain that we would have at least two or three days of fair weather, they "went after the hay like steam-engines," and got it up in splendid shape. They had everything ready and oiled, and when the time to "go after it" came, they went. The other fellows cut when they got ready, hoping that the weather would be fair, and they have a lot of damaged hay on hand. There is lots of luck in "plain sensibleness," as well as in going after a thing like a steam-engine.

BUILDING AND LOAN ASSOCIATIONS.—I note what friend Greiner says about building and loan associations in the July 15th FARM AND FIRESIDE. We have one in our village that has been in existence sixteen years, and it is as sound as a dollar. I am one of the directors, and know all about its workings. During its existence it has enabled a great many wage-earners to buy or build homes of their own. Many who never would have been anything but tenants are now rejoicing in the possession of pretty little homes, and naturally are better citizens, and men among men. To be sure, this is a local concern, though we loan money in other near-by towns. All property offered as security must be strictly gilt-edged, and the borrower must be a shareholder in the association. There are three appraisers, of which I am one, and we see that titles are perfect and the property is all that it is represented to be. All the officers except the secretary and treasurer are elected for three-year terms by the stockholders. None receive any salary except the secretary. The stock taken as an investment has paid from five to nine per cent a year, the rate depending on the amount of business done. These concerns are grand, good things for a town when they are carefully and conservatively managed. The mushroom concerns that started up in the cities, offering eight and ten per cent interest on money invested in them, were managed wholly in the interest of the promoters. The officers were paid large salaries, and for a time they flourished like weeds. Those who put money in them generally lost it. They have been legislated out of existence. Every live town and village in the country should have a live building and loan association.

SWEET-CORN FORAGE.—All who have read the FARM AND FIRESIDE during the past four or five years know how often I have advised farmers to plant sweet corn for green feed for young pigs and milk-cows when grass begins to fail about the first of August. There are rape, sorghum and several other forage-plants that have been highly recommended by some writers, but I have not yet seen anything that is quite equal to sweet corn. Red clover is probably the best forage-plant one can grow for breeding-sows and young pigs, but about the time when the young pigs begin to need it badly it is past its prime. If it is not pastured too closely it will continue to grow and supply lots of succulent forage all through the season, but nineteen out of every twenty farmers will pasture it so closely that it is about done for by the first of August. Then is when a supply of sweet corn will be found very useful.

Unless the young pigs have a good supply of green forage during the hot summer weather they are apt to receive a check in growth that counts seriously against them when cool weather comes on and they should be ready for heavy grain feeding. An Iowa FARM AND FIRESIDE reader says that he seems to have a time to keep his young pigs straight, smooth and thrifty after they are weaned. He says they become lank and humped up like some fall pigs do in winter. He feeds them a fair supply of corn, and they eat it fast enough, but it seems to do them little good. Incidentally he admits that he is a little short of pasture, and he thinks that probably a little more green stuff would be of benefit to them; but as he has none, he asks if I think it will pay him to purchase a lot of a certain stock food to help out. The tests made by the Iowa Experiment Station indicate that it would not. It would be cheaper for him, and better for his pigs, to give one full feed a day of a thick slop made up of middlings and water with as much skim-milk as he has added to it. It should be mixed about an hour before being fed. This, with such pasturage as he has, will probably keep his pigs straight. It would be well for farmers to keep in mind that there is a saving in the cost of feed of fully thirty per cent when the pig has abundant pasture. Plenty of pasturage and about half a feed of corn makes the cheapest young pork that can be grown. If there is any probability of pasturage becoming short, a good supply of sweet corn should be grown. The late varieties are best for green forage, yielding twice as much forage as the earlier sorts.

FARM THEORY AND PRACTICE

THE FIGHT AGAINST WEEDS.—I am willing to grant that weeds on a farm are a blessing in so far that they compel us to give tillage to a crop, and the stirring of a naturally compact soil is essential to most cultivated crops. The ground must be stirred to admit air at times, and to hold moisture at other times, and just so far as the presence of young weeds stirs us up to cultivation, just so far they do good.

We can admit even more in the favor of weeds. The soil needs a covering, and it needs humus, and a piece of ground that is not given a good stand of good plants is benefited by its ability to cover itself with a good stand of poorer plants—poorer in their power to enrich land, but valuable because any rotting vegetable enriches.

But in the case of a man who is willing to cultivate when land needs stirring, and who is willing to sow good seed in a good seed-bed when land needs a sod, weeds become a nuisance of a pronounced type. Some kinds of weeds are more than strictly bad, because they can hardly be controlled at all. In the fight for existence in this world these varieties have proved to be so hardy and strenuous that no other vegetation can crowd them out on even terms, and then only in particular sections where the conditions favor them peculiarly; but in those sections they are a terror to a farmer who wants to boss his own fields and grow only what he wants to grow. Outside these sections they become less formidable, and may not be able to maintain any existence at all. Hence we have our "worst" weeds for each particular locality, and those of one section may be entirely harmless when introduced into another district.

LEARNING THE HABITS OF WEEDS.—I do not care to know the habits of weeds that do not trouble me any more than I care to know the habits of undesirable strangers among humans. But the few varieties of weeds that are distinctly troublesome and costly in one's farming should be known thoroughly. It is surprising that so many farmers with years of experience in fighting certain weeds do not know much about them except that they are a great pest. We cannot fight a weed intelligently unless we know how it is propagated, when it begins growth, when it dies naturally, how its seed is transported, if it bears seed, and when it is least able to resist blows. Most of our worst weeds are very resistant, and that is what puts them into the bad class. A few, however, are annuals, and are bad because they make a crop of seed almost in spite of all practicable effort to prevent it.

THE ANNUALS.—Most weeds, I presume, belong to the class that spring up from seed each year. The majority of them make no permanent show, being killed by the millions by the cultivator's when very tiny, or being crowded out by stronger plants. But a few varieties are exceedingly troublesome, growing with our summer crops after cultivation ceases, and forming seed profusely. Some of the summer and fall grasses are examples. The wild morning-glory—an annual—is another. In my own experience the only possible plan of extermination is a change of crops that will let one crowd the growth out, preceding the planting of the late crop with some stirring of the soil to get the greater portion of the weed-seed to the surface, where it can germinate. Where no plants are permitted to make seed, the annuals must give way.

WINTER ANNUALS.—There is a class of biennial plants—those requiring two seasons to come to maturity—that we call winter annuals. White-top, or daisy-fleabane, is an example. Here again extermination is possible by preventing seeding, and we have two seasons in which to make the fight. If the plants are thick in the field the first summer or fall, we may count upon their presence the next summer. Taking the white-top for an example, we may break the ground the first fall or the next spring, or if the plants be few in a meadow we may cut them out; but knowing the weed well, we learn to plan so that no seed will be permitted to form, and then the trouble will end unless the winds bring the seed from the adjoining land.

PERENNIAL WEEDS.—The truly discouraging weeds, in my own experience, are those that grow year after year from the old root, and especially those that are propagated by underground stems or roots. Probably the horse-nettle, the so-called wild sweet-potato vine, which is one of the bind-weeds, and the Virginia creeper are as good examples of the last-named class as any. When one cuts off the top of a perennial weed, knowing the root will remain year after year to attempt to make its crop of seed, the outlook is not encouraging; but when its nature is such that the more we cut and mangle the roots, the more plants will try to spring up from the sections of roots or underground stems, the prospect ahead of one is staggering. What can we do? Very much depends upon the particular variety, the soil, and the crops that can be profitably produced upon the land. My own experience in this direction has been more extensive than it is pleasing to remember.

THE USE OF THE PLOW.—For cultivated fields, two plowings at the right times and a good renovating crop do a lot of good in fighting our worst weeds among perennials. Take the wild sweet-potato or the Virginia creeper (few weeds can be worse where these thrive). When they get a firm foothold, cultivation is made very

All Over the Farm

costly. If the ground is carefully broken during a drought, say in May, and is left untouched, so that the moisture will escape, and then is broken during a later drought, after some new shoots begin to appear, a great mass of the roots will be killed by lack of water. Then, if millet or buckwheat be seeded thickly a nearly complete victory is often secured with the first rain. Of course, this method depends upon the weather—drought is essential during and after each plowing. But all farming-operations depend upon the weather.

PASTURING AND CUTTING.—Some of the bad weeds of a locality may be controlled by pasturing with sheep and hogs. As an instance we might again mention the wild sweet-potato, which is prized by hogs. Close cutting during drought kills many persistent weeds, and cutting at time of forming seed is especially hard upon a plant's vitality. The old belief in the virtue of certain signs of the moon during July or August for weed-extermination was due to the facts that many perennial weeds form seeds at these times and that droughts are apt to prevail in these months. The prevention of leaf-growth whenever feasible must result in the death of the plant. Pasturing, cutting during drought, plowing during drought, and especially the crowding out of weeds with renovating crops and the formation of heavy sods by free use of fertilizers and grass-seeds, are some of the weapons that can be used effectively in fighting most of our persistent weeds. DAVID.

A FIFTEEN-ACRE FARM

Sometime in the life of almost every man identified with American rural occupations comes the dream of broad acres—of owning more land. Without moralizing upon the influence this expansive desire may have exercised in American agriculture, I desire to call attention to a conspicuous example of a farmer who has not entertained that dream, but who has concentrated his energies, or perhaps more properly speaking, followed logical developments, in producing large crops on a few acres. I have not said maximum crops, for to an intelligent student of what this farmer has already done it would appear he can yet do even more.

The name of Rev. J. D. Detrich, of Flourtown, Pa., has become well known in the realm of advanced agriculture as that of the preacher-farmer who has grown up to the ability to continually keep thirty cows or their equivalent on fifteen acres. Mr. Detrich's agricultural accomplishment is a triumph for the practical application of the fundamental scientific principles of husbandry over the general scoffing against the "book farmer," and it has remained for him to teach the dairyman and the general farmer what they have failed to learn themselves or have taught them—that intensification should be the farmer's watchword.

Mr. Detrich has not, however, done his work with any thought in his mind that he should thus be held up as a "captain of agriculture" for the edification and

This dairy-farming is being done a short distance from Philadelphia, on land worth probably a thousand dollars an acre for building purposes. It is done without any ostentation or elaborate pretensions. There are no earmarks of the "pleasure" farmer about the place. There is nothing that the plainest farmer does not already have in the way of operating equipment, but there are unmistakable evidences of brains, faith and fertility. The accompanying photograph of a clover-and-timothy field, with the owner over knee-deep, was taken in April, 1903, when the less fortunate, more extensive Eastern farmers were crying "We shall have no hay!" The little Flourtown farm does not depend upon current rainfall for moisture for its crops, which grow rain or shine and have "all seasons for their own."

The place has become a shrine for farming pilgrims. National officials, grave doctors and professors, editors, investigators, dude farmers and droves of the plain class seeking a wherefore go to see what one man has done—without state aid, too. Some, I know, go to scoff, but all remain to praise. W. F. McSPARRAN.

STARTING AND PRESERVING THE NEW SEED

The grass crop is the farmer's mainstay and sheet-anchor, whatever the nature of his products, unless we except a few fruit-specialists. Upon the grass-sod when inverted depends not only the desirable mechanical condition of the soil, but largely its life, humus and fertility as well. If the catch and maintenance of the seeding is a success for one year even, there is something to build upon should the season or accident destroy the chances for a profitable second crop; but when the new seed fails to make a successful catch, it is a disaster that many farmers do not fully appreciate in its effects upon subsequent efforts.

The most important factor toward the success of the future new grass crop must be provided for before the seed itself reaches the soil; namely, tillage. Correct and sufficient tillage should be the watchword of every ambitious farmer, and nowhere else is it more important than in the preparation for the seed-bed of the grass crop. To insure the chances of the new seed-catch as fully as possible, the care of the soil for at least a year previous should be kept in view while preparing for and raising the previous crop. To be explicit, the drainage should be such as to allow of no water standing nearer to the surface than from fifteen to eighteen inches under normal conditions. The preceding crop, preferably one requiring careful and repeated cultivation, should be supplied with sufficient well-adapted manure or other fertilizer, so that the soil will not be unduly impoverished, the last atoms of available plant-food being sucked out to mature the crop. The new seed does not require very large quantities of soil-nutrients during its first summer's growth, but they must be well digested and available from the start, and within easy reach of the first delicate rootlet-feeders, not buried a foot below the surface. No pains should be spared in fitting the seed-bed to make it practically possible for all the myriads of young grass-plants required to get a perfect stand a chance for easy germination and growth. Clods, stones and sods will often be pushed aside or grown around by vigorous-growing plants, but the delicate grasses and clovers will invariably give up the struggle amid such unfavorable conditions.

The last and most important consideration in the soil-preparation, except that of the surface layer to form the seed-bed, is a deep and uniform layer of well mixed and compacted soil, by which to establish the very necessary capillary connection between the subsoil stool of moisture and the finely pulverized seed-bed surface.

The writer's experience is that a foster-crop with the new seed is an advantage if intelligently selected and treated, but it should be kept fully in mind that the foster-crop is there merely for a protection, not as a robber to choke and smother the struggling grass-plants, and when cut away to leave them to blast and wither away under the fierce rays of a midsummer sun.

B. F. W. THORPE.

WHICH IS THE ECONOMICAL FARMER?

Two farmers living close to me make professions to being economical in their business. They both pass for good farmers, and I have wondered which of them really was entitled to the palm for having given

the word "economy" the best interpretation. Shall I give the readers of FARM AND FIRESIDE some points in the methods of these men, so that they may be able to determine for themselves which is the most economical man?

I find there is something of a contrast here when I come to study the matter thus closely. One man spends liberally for farm-tools, machinery, farm-improvements, including houses, barns and outbuildings. To my certain knowledge a good share of his profits from the farm has been invested in just this very way. Then, this man has given his children a good education. One is a doctor, one a lawyer, two daughters have married farmers, and a third son lives on the home place and helps his father. You will find books and papers on the table of this man. He is respected everywhere, and has given freely for good purposes.

Now, the other man has done some of these things, too. He has all needed machinery, and his farm always looks thrifty. He has not, however, spent much for the education of his boys and girls. He thinks that

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THE PARSON AT PASTURE

emulation of his fellow tillers of the soil. He has rather put into practice the rational methods that have suggested themselves to him as most likely to make his small farm produce him the most revenue. His unique position as an object-lesson for more timid men to imitate or learn from in contradistinction to our great doctors of agricultural lore, who are working with public money, is that he has for the eye of all who care to see the concrete exposition of his theories, with the interesting addition that he has proven that they pay. This aspect of the case should arrest the attention and command the admiration of our large class of struggling farmers.

It must not be supposed that because Mr. Detrich has Reverend before his name and has been in active charge of one congregation for over twenty-five years that his farm has been merely a pastor's plaything. Not at all. It has rather been a preacher's profit, for in the days of his greatest agricultural needs there was no sacerdotal surplus, and the very early necessity of making the farm pay even more than its own way may have been the inspiration of its more recent assured, manifest success.

Gardening

By T. GREINER

THE WELSH ONION is a winter onion said to be equal in hardness to the Egyptian, or Tree, onion; but it is grown from black seed, not from top sets like the latter. I have a row in the garden which shows great thrift.

BIRD-PROOF BERRIES.—Notwithstanding a serious attack of greenfly, Wilder currants have given a moderate amount of fruit of the usual superior size and quality. It is one of the fruits, however, the possession of which is not disputed by the birds. Another fruit which we can grow without having to fight with the birds for its possession is the gooseberry. These two berry fruits have but few really dangerous enemies.

CURRANTS AND GOOSEBERRIES PROFITABLE.—The currants this year have given me only a moderate, almost light, crop. The gooseberries, especially the Columbus, were well loaded with fruit, most of the bushes indeed as fully as I ever had them. To see those large bushes bent to the ground under their loads of mammoth berries is really a sight, and both fruits are found to be very profitable here, at least to the extent of finding local sale for them. My small surplus (above the house demand) always goes like hot cakes, and I could find ready sale for a number of times the quantity of both currants and gooseberries that I have to dispose of right among neighbors, and without having to hunt for buyers. This is also the case with raspberries and some other fruits. All these fruits can be grown in this vicinity, and sold with profit.

KEEPING AT IT.—At this time we are very apt to get careless, so far as our garden-work is concerned. The early crops are cleared off, weeds are taking the places left vacant, and they grow at a rapid rate. The sun shines hot. The soil is often dry and hot. So we let things drift, fearing to make extra efforts. My plan at this particular time is to spend from thirty minutes to an hour in the garden before breakfast or after supper, when the air is cool and work a pleasure, and to play "the man with the hoe," or spade, as the case may be, and dig over the weedy spots, and again plant them to something—may this be lettuce, turnip, celery, winter radish, spinach, or any of a number of other things that can yet be planted in the expectation of getting something sometime. "Keep at it." That is the key to success in having a neat, attractive garden, and a lot of satisfaction out of it.

CABBAGE-MAGGOT.—An Ohio reader asks for a remedy for the maggots which have ruined his early cabbages, radishes, and even onions. The early cabbages can be kept free from maggots by the tarred-felt collar which I have occasionally mentioned in these columns. How to keep the maggots from radishes and onions is as yet an unsolved problem. Some of our market-gardeners scatter common salt freely over the rows shortly after sowing the seed, and claim it gives radishes without worms. It is easily tried, but I fear it will not help in every case. I sometimes use heavy applications of muriate of potash, which also contains a large proportion of impure salt. Sometimes I grow fine and clean radishes; then again a lot will be almost wholly ruined by maggots. So it is with turnips, also. A sure cure for the maggot would be a blessing to mankind in general, and to the gardener in particular.

THE SQUASH-VINE BORER.—P. R. C., of Springdale, Pa., asks for a remedy for the small white worm which inhabits the center of her pumpkin-vines, just at the surface of the ground. This worm usually succeeds in killing the vine. It undoubtedly is the common squash-vine borer, the larva of a little moth which deposits its eggs on the stem of the vine near the ground. It attacks almost all of the cucurbits—melons, cucumbers, pumpkins, etc., but has a preference for squashes and pumpkins. You should examine the plants frequently, and when borers are discovered, dig them out with the sharp point of a knife. The application of tobacco-dust in generous quantities has in my experience seemed to repel the moth and prevent it from depositing its eggs on the treated plants. One of my old ways of foiling the schemes of this pest is to cover the joints of running vines, especially winter squashes, with fresh earth, packing it down firmly, so as to induce it to issue roots at these places. Should the borer cut off the main stem near the ground, the branches having roots of their own will live and bear fruit just the same. It is about the only thing that could be done. I greatly doubt that the application of poisons to the stem of the plant will have much effect in keeping the borers off, or in killing them. However, disparene in Bordeaux mixture may be tried.

BLANCHING CELERY.—H. P., of Elmont, Kan., has grown some celery-plants, and started a patch, but does not know how to blanch them. With rich soil in which to plant them, and in a wet season, it is as easy to grow celery "as to roll off a log." My celery is doing very nicely this year. I have planted it on very rich soil, and there have been frequent rains. Anybody can grow celery-plants to good size under such circumstances. The trick is to blanch it nicely; but even this is really a simple matter. It is especially easy if the variety selected was one of the so-called self-blanching kinds, like Golden Self-Blanching or White Plume, the former being by far the best, although rather more dwarfish in growth. Procure a few boards, no matter how old or ragged, say a foot wide and of any length, and set them up on edge slantingly along each side of the row of celery, inclosing the plants so that only the tips of the leaves show above the upper edge of the boards. That is about all. In from ten days to two weeks of good growing-weather the plants will be blanched enough for use, and they often come out very fine. The later celery—

that is, that portion of it which is wanted for fall or early winter use—may be blanched by earthing up. Pile the earth up against the row of plants from each side, inclosing the plants with earth in about the same manner as done with boards for the early celery. When blanching celery by means of boards, I usually mulch the ground both sides of the row with coarse manure or other litter, and in a dry time I often pour water or liquid from the barn-yard upon this litter, giving the ground a good soaking. It helps wonderfully.

A NEW WAY OF BLANCHING CELERY.—Some genius in Ohio this summer advertised a "new way of blanching celery. Full instructions sent on receipt of fifty cents." Just to discover what the scheme was, I forwarded the fifty cents, and in due time received a two-page circular, giving the following plan (patent applied for): "Take thin slabs of wood about the thickness of berry-basket stuff, about fourteen inches wide and eight or ten inches long. These can be secured from the basket-factory for a small sum. Then dip these in linseed-oil, and set up to drain. This is only to make them more pliable and to prevent cracking. Then take fine wire staples, and fasten a small wire across each end, letting it extend over each side. In one end of this wire make a loop. This can be done at leisure times or on rainy days. Place the wooden slab upon the ground by the plant, standing with the grain of wood running up and down with the plant, and having the wires upon the side away from the plant. Now, by taking hold of the sides of the slab and bearing gently, you can curl the wooden slab around the plant. This forms a tube around the plant. Slip the straight end of the wire through the loop in the other end, and bend back, fastening the slab. Now press slightly on the top of the tube, which excludes the air from the bottom. If on examination the celery shows signs of rot or rust, raise the wooden tube a little, and allow the air to circulate about the plant. In a short time the celery will be blanched clear and waxy and be of fine flavor." I give this substantially as I find it in the circular. The "originator" will charge you fifty cents for these directions and the right to use the "new plan." I don't advise you to pay the fifty cents. The device is not worth fifty cents. You can blanch celery just as easily by means of wrapping a piece of cardboard, or even stiff paper, around the plant, tying it with a string, or better, a rubber band. It is as effective, as easily adjusted, and there is no patent on it. And after all I prefer any plan of blanching by means of boards. It is even simpler, and in my opinion more effective. Save your fifty cents.

Fruit-Growing

By S. B. GREEN

RUNNERS FROM STRAWBERRY-PLANTS.—W. W., Hoisington, Kan. The best time to take the runners off strawberry-plants for planting out is as soon as they have made a good root-system in August, or in the spring after the plants have made a start. If it is a case of thinning the plants so as to avoid having them too thick in the row, the runners should be removed as soon as a sufficient number have set, and in this case I think the rest should not be nearer together than six inches.

TIME TO SET STRAWBERRY-BEDS.—E. C. E., Peru, Ind. The best time for setting out a new bed of strawberries in your section is in midautumn if the soil is moist, or early in the spring. I do not know why the patch which you set out a year ago last spring did so poorly, but I think it must have been from some other cause than the season of the year. Plants that are set in the autumn will often bear a small crop the next season. If the ground is moist it is a very excellent time to do the work, but if set in the autumn they should be carefully mulched during winter.

SCURFY SCALE.—W. B. B., Kessler, Ohio. The apple twig which you sent is infested with the male form only of an insect known as the scurfy scale. The female form is larger. This is not a difficult insect to remove. On the other hand, it should be destroyed, as it is liable to interfere with the growth of the tree. I doubt if it will pay you to attempt to destroy this scale during the growing-season, but the best thing would be for you to spray the tree early next winter with strong fish-oil soap-suds. This will loosen the scales so they will fall off. A strong solution of muriate of potash is also good to apply in winter to destroy the scale.

ROOT-GRAFTING APPLES.—H. J. G., Modesto, Ind. Apples are very easy to root-graft, and there are many books that contain full directions for this process. "Amateur Fruit-Growing" contains full directions for grafting and budding, as well as the cultivation of fruit crops in the extreme North. I would be glad to give an account of this process in these columns, but it would be out of the question to do so, as we are too cramped for space to permit of the publication of such an article. As a rule apple-root grafts can be bought so cheaply that it is better to buy them all made up than to attempt it on a small scale. The usual price for these is five dollars a thousand.

BLACK-KNOT.—E. A. S., Lake City, Minn. The plum-tree branch which you sent on is infested with what is commonly known as black-knot. It is very unusual to find it on our native plums, although it is common enough on the wild black cherry, and the plums of European origin. There is no good remedy for this, but the best thing is to cut off and burn the diseased portions. I take it that owing to some peculiarity of the season the native plum is more susceptible to attacks of this disease this year than usual. Where the knot occurs on large limbs that cannot well be removed, a treatment that is generally satisfactory is to remove the knot and then paint the wound thoroughly with thick Bordeaux mixture.

APPLE-TREES DYING BACK.—G. W. D., Hubbard, Oreg. The experience that you have of getting a vigorous growth on your apple-trees, and then having them die back in the winter, is not an unusual one. I do not know what causes it, but where trees make a vigorous growth, and especially where they grow late in the autumn, they are liable to be injured in the winter even in favorable climates. The wood that you sent on does not seem to have any special disease, and I think that the cause is as stated. The chances are that if the trees do not make a late autumn growth this year you will have no further trouble. I have seen trouble of this kind in eastern Massachusetts, where the apple thrives wonderfully well.

MAHALEB STOCK.—F. W., Greenville, S. C. The little purple cherry from the tree that had the small, roundish leaves is from what is known as Mahaleb-cherry stock. This plant is a native of Europe and Asia Minor. The fruit of it is of no value, but the plants are used as stocks for the cultivated varieties of sour cherries. You were probably sent one of these stocks instead of a grafted tree by mistake. I doubt if it is worth while for you to attempt to graft or bud it, and think you had better throw it away and start anew with a correctly named variety. Such a mistake as this may happen in any nursery when they are crowded with work, as in the shipping-season, but any reliable nursery would replace such a tree with a suitable one free of charge if requested.

ROSES NOT OPENING.—B. M., Millersville, Md. Some varieties of roses are quite liable to fail to open their flowers in unfavorable seasons, or if planted in unfavorable conditions—as, for instance, where the ground is a little too moist, or if shaded and there is not a good circulation of air. Roses are also injured and sometimes prevented from opening by the work of a snout-beetle that cuts off the petals. In numerous cases if the conditions surrounding the roses are improved, or the plants are taken up and set in a more favorable location, the trouble disappears; or the trouble may be only a temporary one, due to peculiar local conditions. If due to the presence of the snout-beetle you will find them on the bushes if you look sharp for them, and a little attention paid to gathering and destroying them will overcome the difficulty.

TREATING LOCUST-SEED.—A. M. S., Harrison, Tenn. The best way to start black-locust seed is to place the seed in a milk-pan or similar vessel, cover with water that is near the boiling-point, and allow it to stand until cool, when some of the seed will be found to be swollen. Such seed should be taken out, and the rest treated in the same way until swollen. Seed thus treated will germinate quickly when sown, while that which is not treated will frequently be several years in starting. This treatment should be given just before sowing the seed. If your hillside is washing badly, so that your seed would likely be all washed out, I am inclined to think the best way of treating it is to sow your locusts in good soil that is not likely to wash, and then transplant them on your hillside when they are one year old, where they can be protected without difficulty and would soon prevent washing.

TIME TO GET NURSERY STOCK.—F. W. B., Evanston, Wyo. In your case I think that if the ground was moist in autumn, or if I had a good cold cellar in which I could "heel in" the plants, that I would prefer to get nursery stock in the autumn to taking my chances on their arriving in good condition in the spring. While it would be quite possible for a Minnesota nurseryman to hold this stock back, and ship it to you in good condition late in the spring, yet under ordinary conditions of the nursery business it would be quite difficult to do so, and you could hardly expect it to be done in a satisfactory way. The important thing in heeling in is to get the earth mixed well among the roots and perfectly solid, without air-spaces, and then to have it well wet down. After this is done, the plants should be covered, tops and all, with earth or good mulch if outdoors; if in a cold cellar, there is no need of extra protection for the tops. I like to get my stock in autumn, because then I know what to depend on in the spring. Where nursery stock is shipped a long distance, as would be necessary in shipping from the East to you, there are apt to be so many delays that it will often arrive in poor condition, while if shipped reasonably early in autumn, carefully packed in a paper-lined box, it ought to arrive in good condition. The whole matter hinges on whether or not you are able to "heel in" the stock well.

SUDDUTH PEAR—IRON FOR TREES.—J. T. B., Wichita, Kan. The Sudduth pear has not been proven a great success by those who have grown it thus far. In the last report of the Iowa Horticultural Society are the statements of a number of parties who have grown this variety, and I have yet to find one who believes it any great addition to our list of cultivated varieties. The secretary of the Iowa Horticultural Society and Prof. A. T. Irwin of the Iowa Agricultural College state that it is the same as an old variety known as Burkitt. I think the tree is very healthy, but there is no variety of pear that can be said to be entirely free from blight. It is all right to experiment with new varieties, but I could not recommend your planting many of this kind.—There was a time when it was supposed that scrap iron was of some value as a fertilizer to trees, but the best authorities now agree that it is of but little if any benefit under ordinary conditions. All our soils contain a sufficient amount of iron to more than supply the very small amount which trees use. The driving of nails into tree-trunks, or the boring of holes in them and filling with sulphur or other material, to prevent blight, or to assist the tree in overcoming insect diseases, or to make it more fruitful, is a humbug that no intelligent pear-grower will give thought for one moment; yet a few years ago the city forester in one of the big Eastern cities treated his trees by boring holes and filling them with sulphur, believing that this treatment would ward off insect and fungous injuries. But this simply shows how unintelligent are some people who occasionally get into prominent positions.

GENERAL-PURPOSE BIRDS

GENERAL-PURPOSE fowls are not now so much in demand. It is an inferior fowl that is "general purpose," as it excels in no particular respect. The farmer who desires a bird for eggs or market can take his choice. He can select from the breeds the kind he wants, and can satisfy his demands among all classes of fowls for whatever he may prefer.

BUYING IN THE FALL

The cheapest mode to begin with pure breeds is to buy a few fowls in the fall, as prices are then usually very low, and have them on hand ready for operations in the spring, as a trio of fowls will lay three or four hundred eggs, and a year's time will be gained as compared with buying eggs in the spring. The yards of breeders are now full, and they will "thin out the surplus" cheap. It will be a good investment to buy now.

LIGHT AND COMFORT

Whitewash the poultry-house inside, so as to make the interior light and cheerful. Poultry have a repugnance to dark quarters, and will remain outside, exposed to storms, in preference to resorting during the day to a dark and uncomfortable poultry-house. Ducks must be kept in a house which has a board floor covered with straw. They are not good layers at this season, as they usually begin to lay early in the year.

CHOLERA AND INDIGESTION

Cholera is a disease that acts quickly, for in two or three days all the fowls are dead or some are well. It is not a disease to stick to the flock, like roup. There is no sure cure for cholera. The best remedy is a teaspoonful of carbolic acid in half a gallon of water, placed where the fowls can drink at will. A great many persons inquire for a remedy for cholera without knowing what disease may be in the flock. When they state that they have cholera in the flock, and "cannot get rid of it," they give the best evidence that there is no cholera, for it rids itself

Poultry-Raising

By P. H. JACOBS

and thus "kill two birds with one stone," using the hay for their stock (even if only for bedding), and feeding the seed to their chicks. It is not too late to sow it.

BREEDS OF GESE

The breeds of geese that give the best results are not always the larger kinds. While the Toulouse and Embden geese may grow to a large size, and produce heavier carcasses and more feathers than those which are smaller, yet such breeds as the Brown China or White China will lay more eggs than the larger breeds, and being more active will forage for themselves to a better advantage, and can therefore be kept at a less expense. The profit in geese does not depend upon the size, but upon the cost; and as geese do not bring prices in market equivalent to their true value, the breeds that can obtain their food without feed from the time they are hatched until matured will be found to be the most profitable.

THE SMALL BREEDS

Leghorns, Hamburgs and some of the small breeds are usually considered to be very wild birds, but they can be tamed as readily as any other fowls. They can be taught to come at a call, and even eat from the hand, but they must be treated exceptionally kind from the time they emerge from the shell until they are well tamed. They should never be frightened, chased around the yards or made to have any cause for alarm. There is nothing prettier than a flock of gentle birds. Some are more easily tamed than others, but no fowls will become tame if not treated kindly and made familiar with one or two particular people, especially the ones who feed them. That is the best way of taming a fowl—at feeding-time.

CONFINED POULTRY

The dust-bath is something that cannot be dispensed with in the hennery. Have a shallow box filled with road-dust or ashes, put it in a dry place (in the sun-

lessened. The cost always regulates the profits. Do not discard all the old hens to make room for pullets. The tried hen is always preferable to the untried

pullet. A hen in her second or third year is not old, and many are then at their best. Hens produce more vigorous broilers than pullets; and hens two or three years old produce strong, hardy chickens. A pullet is uncertain until she begins to lay. Sometimes the largest and most beautiful are almost worthless as egg-producers. Early hatched pullets, however, should be retained in preference to fat and lazy hens. Market all fowls possessing decided faults, remembering that defects increase with age. Dispose of all quarrelsome cocks and feather-eating or egg-eating fowls, as they will be sure to have some imitators if they are kept.

INQUIRIES ANSWERED

SUDDEN DEATHS.—Mrs. H. W. H., Fullerton, Cal., writes that "she has suddenly lost five half-grown birds from some cause." As she gives no details, it is impossible to ascribe a cause, which may be poison.

LAME COCKEREL.—J. N. M., Lind, Wash., "has a valuable cockerel which has become lame. No method of management is mentioned." It is probable that the roost is high and the bird fat and heavy, which caused the lameness.

"YOUNG"-CHICKEN CHOLERA.—Mrs. M. H., Fallis, Ky., requests "a remedy for what she terms 'young'-chicken cholera." Cholera affects all ages alike. It is probable that the chicks are improperly fed, or consume some substance which causes bowel-disease.

WORMWOOD FOR POULTRY.—T. E. S., Rushville, Ohio, asks "how to use wormwood for poultry, as he has planted the seed upon recommendation of some one." In reply it may be stated that wormwood is not recognized as being of any value whatever for poultry.

CHICKS BLIND.—B. A. P., Providence, Ky., desires "remedy for blindness in chicks." The difficulty may be due to drafts of air at night, or perhaps to lice on the heads, but it is impossible to give a satisfactory reply, as the writer gave



CROSS-BRED AFRICAN AND TOULOUSE GOSLINGS

in a few days. The symptoms are great prostration, a nervous, anxious expression, intense thirst, and profuse diarrhoea of greenish color. Most of the supposed cases of cholera are due to indigestion, the result of excessive feeding. Cholera is really a very rare disease.

GROWING MILLET-SEED

Late chicks can be raised at but little cost at this season if kept clear of lice, as they can get all the green food they wish. A meat-grinder or green-bone cutter will be found useful. The chicks will bring good prices if sold before they weigh three pounds each. One of the best feeds for growing chicks, for the first portion of their lives, is millet-seed. Millet is well known, and the yield from an acre is very large. The farmers who are also progressive poulters should sow an acre or two with millet, thresh out the seed, save it for the chicks another year,

shine if possible), and see how the fowls will enjoy it. If it should get fouled in any way, remove it, and supply fresh dirt, as they will shun it if polluted. When young poultry are allowed to contract the habit of roosting in the trees, no time should be lost "in breaking them of it. Confine them to the poultry house and yard, as a day or two will generally effect a cure. Get your dust-baths ready. Sand and finely sifted coal-ashes, with a pound of sulphur to every bushel of the mixture, is the best. This should be put in large boxes, and kept out of the rain. Whitewash the houses, putting in a gill of carbolic acid and a pint of common kerosene to each pailful of slaked lime.

KEEP THE HENS

If old hens give a profit, keep them. The rule should be to sell off everything that does not produce something, for by so doing the expenses will be materially


no information as to the methods he employed in the management of the chicks.

LICE ON CHICKS.—J. B. R., Mutton Run, W. Va., "has some little chicks which stand with their wings drooping. He found some head-lice, but the chicks do not improve since he changed their food." It may be stated that the large head-lice are at fault. Anoint the heads with a little melted lard, and dust the bodies carefully with insect-powder. The advertised lice-killers are excellent.

LIMBER-NECK.—A. M. S., Harrison, Tenn., desires "a cure for limber-neck, some of the fowls living two or three days, and some only a few hours." The writer should have given method of management. The difficulty is usually due to the eating of putrid meat, or the maggots from carcasses. Molasses in water is said to be beneficial, but the best thing to do is to prevent the birds from having access to unfit food.

THE BREAK DOWN
is usually in the wheel. They receive the strain and wear. They dry out, spokes and felloes rot, tires come loose. Get the service out of wheels you do out of gears by using

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DAIRY FEEDS
THE most carefully conducted experiments in feeding dairy-cows seem to prove conclusively that where palatability and digestibility are not materially out of proportion in two feeds, that such feeds, if they contain practically the same elements of nutrition, are interchangeable in feeding operations. Palatability of a food for the individual cow must never be lost sight of. After that question has been settled in considering the cow's ration, the most important remaining problem is to secure the food-elements in their best and cheapest form.

There are some foods, however, that cannot be compared with any other food. Certainly all foods must have class comparison if they are to be compared. It therefore follows that digestible protein in silage cannot be compared with digestible protein in oats or clover hay, for united with the silage-protein is silage-succulence, which possibly, I think probably, is quite as valuable as if it were a real food-element. That it is not so no one has yet told us.

But assuming that the individual cow is fond alike of gluten feed, wheat bran and ground oats, it has, as I have said, been proven by numerous carefully conducted experiments that protein, for instance, may be supplied from whichever of these feeds will be found to furnish it most economically. Yet one of the most prolific and exhaustive contributors to the agricultural press, standing ready to meet all questioners, insists in season and out of season that we shall always have oats in the dairy ration.

A few years ago the best dairy journal in the world had as its veterinary adviser a learned doctor who maintained as strenuously as the oats man maintains his plea that we should not feed cotton-seed meal to cows because of abortive properties that were extracted from the root of the cotton-plant. Nor, he warned, must we feed silage—I have forgotten now for what learned reason. Yet all over the land successful and scientific dairymen have been using silage for bulk and cotton-seed meal for concentration for years.

So this other authority is forever insisting that we must have oats in the dairy bill of fare. I grant that oats is a most superior feed, that it is grown at home, that all animals like it, that it has a tonic effect, and all that. So, also, with corn, and early cut, properly cured clover hay. The dairyman who has good corn silage, mixed hay, corn-meal and wheat bran, and desires to increase the protein in his ration, and shall do it by adding oat-meal at about twenty-six dollars a ton, when he could secure the same amount of protein in gluten feed at two thirds the cost, or in cotton-seed meal or gluten-meal at one half the cost, would not seem to use good business management.

Simply because one produces a crop, to therefore use it regardless of how much more profitably the crop can be sold and a substitute be bought, is much on a par with my neighbor who believed in home consumption so thoroughly that he used a three-hundred-dollar driving-horse raised on the farm for plowing and other heavy work, when a "plug" of a heavy horse would have done more work and could have been bought for half the money the other could have been sold for.

It is well for the dairyman who has had limited experience in the purchase of feeds to confine himself to those feeds of commerce that are well established as dependable, on account of the good results dairymen of wider experience may have secured from them, and to steer clear of those high-priced, condimental, unknowable mixtures and compounds that are on paper productive of such marvelous results. W. F. McSPARRAN.

THE SCIENCE OF THE DAIRY-COW
Most farmers of this country realize most painfully that they are not getting from their lands the crops they should and such as they did a quarter of a century ago. The learned gentlemen whose pleasing duty it is to go about the country speaking at farmers' institutes, and who write so wisely, tell us that what we need in our soils is more potash, more nitrogen, more phosphoric acid. Supply these missing elements, they say, and we will undoubtedly get back to our old-time crops.

This sounds wondrously profound to the man of the ordinary intellect. He reads and wonders. What wisdom is here! What depth of knowledge so far above us common folks! But after all it means nothing to him. He simply knows what he knew before—that



Pigs At Weaning Time

Stand a chance of slow development for a time. Grain or sour milk is harder to digest than the milk of the dam. The digestive organs require special aid at this time. As the feeding period of the hog is short—and the shorter the better—it is expedient to strengthen and build strong every digestive organ while the pig is young. Dr. Hess Stock Food, the great hog tonic, makes pigs grow fast, healthy and strong; expels worms, aids digestion and assimilation and causes all of the nutrition to be applied to bone and muscle building. Stewart, the great American authority on feeding, says:—"The mother is supposed to impart to the young her own digestive system." It is, therefore, important that even sows should be fed this scientific compound that they may impart perfect digestion to the offspring. A penny's worth feeds 8 hogs. Feed Dr. Hess Stock Food regularly as directed disinfect the pens and feeding places with Instant Louse Killer, and we guarantee that your hogs will be free from disease. E. C. BURLINGAME Co., Walla Walla, Wash., write: "Enclosed find check for \$25.00. Please send us 500 lbs. of Dr. Hess Stock Food. We want something to start our young pigs when they are being weaned. We used 300 lbs. lately and liked it very much."

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farm is becoming poorer, his crops becoming correspondingly lighter, and his pocket-book thinner. But really what does he care about the learned discussions about nitrogen, potash and phosphoric acid? That, he argues, is for the man with the long purse and the profound mind. As a matter of fact, we every-day farmers are not yet up to the point where these things appeal to us very strongly. What we want, and what we must have, is some way to build up our farms.

In our dilemma we turn to the old cow—the plain, commonplace dairy-cow. She has little scientific knowledge. She is too busy to think of the sounding terms with which her owners speak when they discuss the lacking elements of the soil, but she keeps on doing her part in her narrow sphere to bring back fertility to the worn-out farms of the country. And she has it in her power to do this if we will but lend her a helping hand. Taking everything into consideration, the dairy-cow of the United States has more to do with the solution of the problem staring us in the face to-day than any one else in the world. What the manufacturers of commercial fertilizers cannot do, with all their wisdom, the old cow can accomplish.

Barn-yard fertilizer is just as near a perfect fertilizer as the ordinary farmer will ever find. It contains all the elements necessary to restore the fertility that we have been carting away by the ton in the form of wheat and corn all these years. It is worth more than any of the rest of them.

This implies that the farmer has fed out upon his farm the hay, grain and other feed grown there. It means that he has taken due pains to keep out the weed-seed and to have the manure well rotted. It presupposes that he has saved the liquid part of the droppings from his stables, and that he does not allow them to go to waste, but applies them faithfully year after year to his land.

It requires a strong man to do this. Far too many of us yield to the temptation to sell off our stock and put our hay and grain on the market. That is what thousands of farmers have been doing for a long time. That is why our lands have depreciated so in value. That is why we will need a radical change in the manner of our farming methods. But has not the time come when we should allow the scientific principles of the dairy-cow to prevail? It seems so to me.

E. L. VINCENT.

RABIES, OR HYDROPHOBIA

Rabies, commonly called hydrophobia, has been unusually common among cattle in Kansas, at least seven outbreaks having been reported during the past year. Rabies does not occur most frequently during hot-weather, as is very generally believed, the greatest losses occurring during the fall and spring, but it may occur at any season of the year. The disease seems to appear periodically, some years no outbreaks being reported, and other years the losses being frequent and severe.

Rabies is a disease of the nervous system that is transmitted from one animal to another by direct inoculation through a wound, usually a bite from a rabid animal. It is possible that food or water contaminated by an animal affected with rabies may infect animals having sores in the mouth or digestive tract, or the infected saliva being deposited upon an open wound of irritated mucous membrane may cause the disease.

The disease, as observed during the past year, has been among cattle, except in one instance, where two horses died. The loss among cattle has varied from five to twenty-seven head. In one herd of sixteen head eleven died from rabies.

In four out of the seven outbreaks reported, a dog supposed to be rabid was known to have bitten or been among the affected cattle. The disease usually occurs in from five to ten days after the animals are bitten, and among cattle they may continue to develop the disease for from eight to ten weeks after the first case occurs.

The symptoms vary considerably even among cattle. The affected animal becomes nervous and excited, in many cases vicious, attacking persons and smaller animals particularly. In some instances they will dash at a person, but suddenly stop a few feet away. There is a peculiar wild or vacant stare. Affected cattle will often push and maul other animals in the herd, and there is a tendency to lick the genital organs of other cattle. As the disease progresses they become more excited, and will very often emit a hoarse bellow frequently or almost continuously. In many cases there is often violent straining, as if to pass dung, the rectum often being

Live Stock and Dairy

verted. Paralysis often occurs, and is first noticed in a wobbling, uncertain gait, and later the hind quarters give way and the animal is unable to rise. In a few cases the animals will fall in convulsions. In all cases animals will eat and drink water until paralysis of the throat makes it difficult or impossible. There is frequent shaking and swinging of the head and opening of the jaws, with dripping of a rosy or frothy saliva from the mouth. There is a tendency for rabid animals to eat dirt, dung, sticks, etc.

Post-mortem examination shows no signs of disease, although the body is unusually stiff and rigid and the stomach contains dirt and other foreign material.

There is no treatment for rabid animals, as death always occurs. Affected animals should be isolated, or destroyed at once to put them out of misery and to prevent possible infection of others. Water-tanks and mangers should be emptied and thoroughly disinfected by using a strong solution of concentrated lye or a five-per-cent solution of carbolic acid. Food that is contaminated with saliva should be burned. Suspected dogs should be destroyed. Persons should exercise utmost caution to avoid being bitten or infected through wounds on the hands while caring for infected animals. —N. S. Mayo, in Bulletin No. 127 of the Kansas Experiment Station.

THE TROUBLE WITH OUR HOGS

At the meeting of the Iowa Swine-Breeders' Association held at Des Moines in June the discussion on alfalfa and other pasture for hogs was the most interesting of the session. The swine-breeder of the corn belt is finally coming to realize the danger of the all-corn ration for the brood-sow and the pigs. About fifteen years ago, at a meeting of this same association, some one ventured the opinion that a steady corn diet was not best for hogs or any other animal. An experienced breeder replied by saying that corn was made for hogs, and the only trouble with most farmers and breeders was that their hogs did not get enough of it. The nodding heads around the room indicated that he had voiced the sentiment of most of the members. A good many breeders have had reason to change their views since that time. One or two short corn crops and consequent high prices, compelling the use of other feeds, have had something to do with it. Smaller litters, clearly impaired vitality, paralysis, and other heretofore unknown diseases which sweep away half the herd

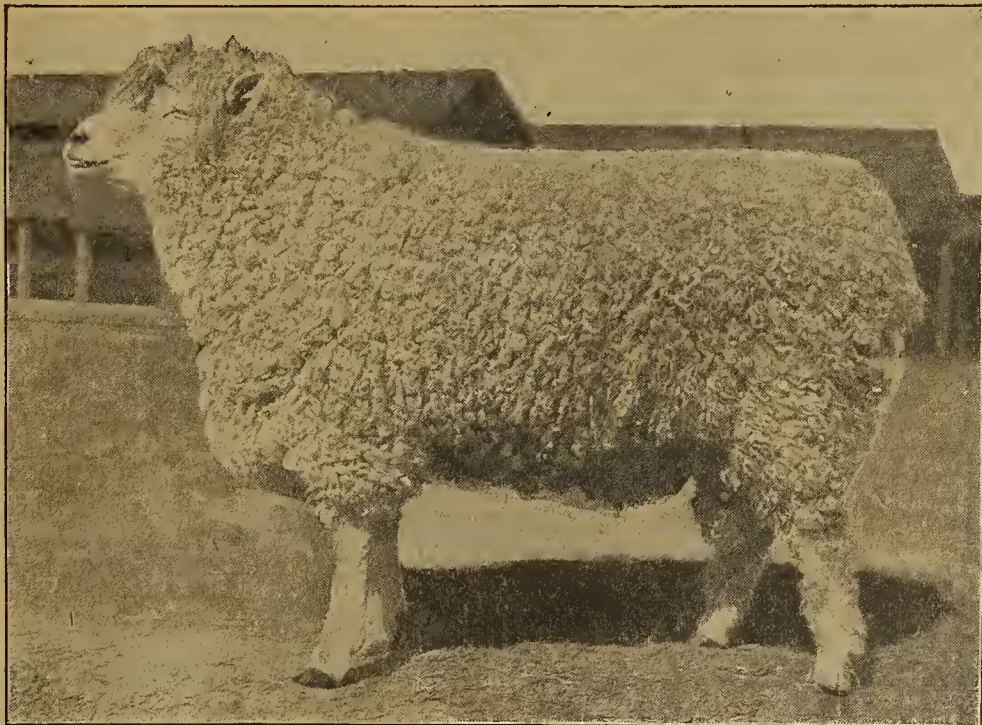
will make more growth on grass. Last week we spent a couple of days in the Platte Valley in central Nebraska. We saw hogs there that had been grown on alfalfa pasture and one pound of corn a day per head. They were fine, big, thrifty fellows, not as pretty to look at, perhaps, as the hog pushed on grain from the start, but good "doers." Hogs grown in this way up to six or eight months of age, and then finished by a short, heavy corn feed, will not only make much more economical gains, but will be healthier and more prolific. Not every farmer can grow alfalfa, although the experience of our readers during the last two or three years shows that it can be grown in many parts of the corn belt where heretofore it was not supposed possible. Throughout the corn country, however, clover can be grown to perfection, and furnishes the next best thing to alfalfa as hog-pasture. This, with a patch of rape to furnish variety, ought to be on every farm where hogs are raised.—Wallaces' Farmer.

WINTERING BROOD-SOWS ON ALFALFA HAY

Brother Wallace of the "Farmer" advises siloing alfalfa on which to winter brood-sows. Last fall the senior editor of the "Dairyman" commenced feeding nine brood-sows on alfalfa hay and their drink. This was continued all winter, the sows keeping in fine condition. These nine sows had seventy-eight pigs, with only one "titman" in the lot, and we have raised seventy-five weaned pigs to the present time. We never had sows yield milk so abundantly, and never raised a lot of pigs which showed so much vigor right from the start. The cost of wintering did not exceed one dollar and fifty cents for each animal. They did not receive a particle of grain food during their wintering period. There is nothing finer for the production of strong, active pigs than alfalfa hay.—Hoard's Dairyman.

LUMPY-JAW

This disease more often affects cattle than other animals. It is due to a fungus sometimes called the ray fungus, or actinomycosis. The fungus occurs upon grass and other vegetation, and it is only when it becomes introduced into the tissues that it causes trouble. The disease comes from eating and outside sources, and is not contagious in the usual sense of the word. Several animals may become affected while on the same pasture, but this is due to all being exposed alike. Some years the number of cases is greater than others, owing to the greater development of this fungus. The disease affects the jaw more often than other parts, due to the fact that the tissues are



A COTSWOLD RAM

of pigs in a few days or weeks, have set thoughtful breeders to wondering if there is not something radically wrong with their methods of breeding and feeding. Is it not possible that we are beginning to reap the harvest of years of a clear corn diet in a dry lot? Has our treatment of the hog, which has shortened his nose and legs, decreased the size of his stomach, and weakened his bones, also made him constitutionally weak and an easy prey to disease?

When corn was cheap and freight-rates high the main use of the hog was to market the corn, and thus condense freight. Corn is not as cheap as it was, and we doubt if we will ever again see an era of low prices. Higher-priced grain is alone sufficient reason for changing our methods of raising hogs. The successful swine-breeder of the future

sometimes broken in the act of chewing, thus permitting infection.

The disease is comparatively easy to treat. A dram of iodide of potash is given twice a day for from two weeks to twenty days. For cattle weighing twelve hundred pounds or more the dose is somewhat increased, and lessened for calves. If pus is present in the lump it should be let out by incision. In a few refractory cases a second period of treatment may be required after resting for ten days. About eighty per cent of recoveries may be expected. Affected animals should be kept away from the healthy and off the pasture-field. In the case of milk-cows the milk should not be used. The state does not pay for such animals when it destroys them.—A. W. Bitting, in Bulletin of the Purdue University Agricultural Experiment Station.

will make more growth on grass. Last week we spent a couple of days in the Platte Valley in central Nebraska. We saw hogs there that had been grown on alfalfa pasture and one pound of corn a day per head. They were fine, big, thrifty fellows, not as pretty to look at, perhaps, as the hog pushed on grain from the start, but good "doers." Hogs grown in this way up to six or eight months of age, and then finished by a short, heavy corn feed, will not only make much more economical gains, but will be healthier and more prolific. Not every farmer can grow alfalfa, although the experience of our readers during the last two or three years shows that it can be grown in many parts of the corn belt where heretofore it was not supposed possible. Throughout the corn country, however, clover can be grown to perfection, and furnishes the next best thing to alfalfa as hog-pasture. This, with a patch of rape to furnish variety, ought to be on every farm where hogs are raised.—Wallaces' Farmer.

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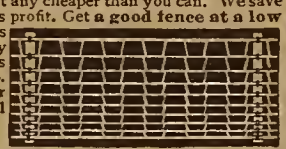
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In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold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



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

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Swan's Preserving Compound will keep any kind of fresh meat for one year or more, without ice or salt, as fresh as the day it was killed. Its use cannot be detected by sight, taste or smell. Flies and insects won't touch it, hottest weather won't affect it. All nutriment, flavor and color retained. Positively guaranteed not to contain poisonous drugs, acids or anything else that could injure the health. Full-size package, enough to preserve a ton of meat, will be sent prepaid to any part of the United States on receipt of \$2.00. Booklet free. Agents wanted.

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The Grange

By MRS. MARY E. LEE

ANNUAL REUNION OF THE PATRONS OF HUSBANDRY
COMMUNICATION FROM THE MASTER OHIO STATE GRANGE

"Another year has passed away,
Time swiftly speeds along."

and the thirty thousand Patrons of Ohio are hereby admonished that the time is rapidly approaching when we shall be gathering in Columbus to hold our annual reunion upon the State Fair-Grounds. This yearly reunion has become the fixed policy of the order in Ohio, and arrangements are already completed to make this occasion, September 2 and 3, 1903, of unusual pleasure and interest.

The hard-working farmer and his family are entitled to at least one outing annually. The year promises to be one of great prosperity, and we shall experience a generous share. Let us begin now to lay aside our "pin-money" and arrange for the trip. Every indication points to an increase in our membership in Ohio, between April 1st and September 2d, of two thousand. These new members will have never joined in our glad reunions; many of them have never seen our great State Exposition.

Among the many pleasant, as well as profitable, features for this year will be the presence of Hon. E. B. Norris, Master of the New York State Grange and Chairman of the National Executive Committee. Brother Norris is an earnest, loyal and eloquent Patron, and will tell us how New York came to be at the head of the grange column. Sister F. D. Saunders, Lecturer of the Michigan State Grange, will be in attendance both on September 2d and 3d. All eyes have been turned to Michigan as the state making the most rapid grange growth in recent years. Come and hear Sister Saunders tell of Michigan methods of growth in grange strength and influence. She is a lady of great magnetism, charming manner, rare refinement and liberal culture.

In addition to the above, Brother F. P. Wolcott, Editor "American Grange Bulletin," announces that Ohio has won the beautiful silk banner offered by the "Bulletin" for the largest number of subscribers in the contest recently closed. Brother Wolcott will attend September 3d, and in person present the banner. Sister Wolcott will accompany her husband, and no one can afford to miss meeting her.

At half-past one each day there will be an informal reception at Grange Hall, on the fair-grounds, and all attending members will have an opportunity to meet our distinguished guests.

Further details will be announced in the public press from time to time, but this gives the data upon which we can all begin to plan. Invitations from cities desiring the next session of the Ohio State Grange will be canvassed at this time.

Railroads will make low rates for transportation, while the Executive Committee, as well as the State Fair management, will spare no pains to secure the most comfortable entertainment for all visiting Patrons at reasonable prices.

In preceding years visitors from other states have united in pronouncing the Ohio State Fair the most successful of all fairs; its buildings the largest and most commodious; its grounds the best arranged and most beautiful; its exhibits simply beyond description.

This great plant belongs to the taxpayers of Ohio. Come, let us gather there and see our property. Let us lay aside our farm-work and worry for the entire week; forget our houses and lands, flocks and herds, the price even of butter and cheese, corn, wheat and hogs; cease for a few days our struggle for the possession of things material, which at best will soon dissolve in our hands. Let us forget them all, attend the great Exposition and Reunion, and garner the joys of association, lay up the treasures of fraternal regard, extended acquaintance and friendship, and cultivate such qualities of mind and heart as will make us nobler men and women.

Fraternally,
F. A. DERTHICK,
Master Ohio State Grange.

MISS HEALY'S PROWESS

Miss Margaret Healy saved the day for women when she fought to a successful issue President Butler's proposed amendment to the by-laws of the National Educational Association, providing that the president might name the members of the nominating convention, instead of leaving it to the different states. This would have made the women practically

powerless in the association, a thing Miss Healy was wise enough to foresee and nip in the bud. A few more victorious battles by the grade teachers will make the National Educational Association a far more powerful factor in the educational affairs of our country, as they concern the common people.

NATIONAL MASTER AT OHIO STATE FAIR

In addition to the other able speakers mentioned elsewhere, Mr. Derthick has secured National Master Jones for September 3d for the Ohio State Fair Grange Reunion. Let every Patron in Ohio make a supreme effort to come to Columbus on this day. Mr. Jones is an able speaker, the leader of the most efficient and largest farmers' organization in the world. Bring your neighbors, and write to your friends who are out of the grange to come to Grange Hall at the State Fair, and hear Mr. Jones tell of the work of the grange.

LIBRARIES

Mr. Carnegie has established over one thousand libraries, one hundred and fifty-eight during the last year. The year's gifts amount to \$6,679,000, and 96,247 volumes. While we appreciate the magnificent services rendered by Mr. Carnegie, we can but feel that the few books added at much sacrifice to hundreds of grange libraries will bring to the state a very great share of intelligence. It is not the imposing edifices and vast array of books that count the most, but the few excellent ones read and digested. The widow's mite was not despised.

THE OBSERVATORY

More new granges were organized in the first six months of the present year than in the entire year of 1902.

Mrs. F. D. Saunders, Lecturer of Michigan State Grange, will address the Patrons at the Ohio Grange reunion at the state fair this year.

State Master Derthick recently dedicated Rehobeth Grange Hall, in Perry County, Ohio. This is one of the finest halls in the state, and Ohio is justly proud of it.

What the Greek-letter fraternity is to the college man, the club to the city man, the grange is to the farmer. It ministers to his financial, spiritual, social and mental needs. Its benefits are many.

If farmers would have confidence in each other, they could combine and produce many a trust-made article with profit to themselves. We pay dearly for our lack of faith in one another.

For every incapable and dishonest official there are hundreds of thousands of honest, capable men in private life who could fill the office with honor and distinction. Why are they not in office? Ask the voters and the party bosses.

When loudly condemning child-labor in factory and mine, look into the fields and see what your child is doing. I have seen as pitiable cases of arrested development and stunted intellect from child-labor on the farms as in public works.

Ohio institute-workers will hold an institute during the last week in November, preparatory to the winter's work of lecturing. It will be conducted on lines similar to those of the teachers' institutes. This is highly commendable. Farmers are becoming more and more enlightened, and as a result demand better lecturers.

Make arrangements to attend your state fair this fall. It is an inspiration and incentive to better work in the future. If the grange maintains headquarters on the grounds, be sure to go there, whether a Patron or not. Meet the farmers of the state. Talk over matters of interest to our class. Know your neighbors—it will surely benefit you.

Because you do not find pleasure in attending church is no reason that you should neglect the moral and ethical training of your children. Examine the ten commandments, and you will find they resolve themselves into so many ethical propositions that sound common sense cannot help but approve.

The race, like the individual, must go through successive stages of development. All is not smooth, graceful action, but occasional falls and hard knocks. To the child who stumbles and falls, the world is indeed dark; but he rises again, and in the end finds light and independence. So it is with the human race. Ahead of it is light and life.

DEBT OUTLAWED.

M. N. S., Kansas, inquires: "A. bought some goods of B. A. did not pay at the time, several months passed, and B. did not ask A. for the money. Can B. collect the amount after one year's time?—Can a person collect pay for labor after one year has passed?"

In the state of Kansas a contract not in writing is not barred or outlawed until three years after the goods have been purchased or contract made. The one-year limitation applies only to libel, slander, assault, battery, malicious prosecution or false imprisonment.

WILL—WIDOW'S RIGHTS

A subscriber in South Dakota wants to know: "If a man dies, and leaves a will, and wills his wife only one dollar, is that all she can get?"

Almost all, if not all, the states provide that a widow may elect to take under the will or as the law provides. In no case can the husband, without the wife's consent, deprive the wife of her rights to and in his property, and in South Dakota the wife would be entitled to one third of the property remaining after the debts of the husband have been paid.

INHERITANCE

L. M. C., Illinois, wants to know: "If a man in Colorado or Idaho dies, leaving no children, and without making a will, what part would his widow receive? Would his parents or brothers be entitled to any part of it, there being both real and personal property?"

In Colorado, if there are no children and no will, the estate descends to the surviving wife, subject to the payment of debts. In Idaho one half would go to the wife, and the other half to the decedent's father and mother.

PARTITION FENCE

J. J., Ohio, is having trouble with his neighbor about his partition fence, with the following facts: "A. and B. have a farm surveyed out, and agree to build a new line fence. A's land is open to the highway. The fence is built, and B's land is pasture for his cattle. A's is plowland. A. plants corn on his side. B's cows put their heads through A's fence, and damage A's corn, also his fence. A. refuses to repair his fences, and notifies B. to keep his cattle out or he will shoot them. B's half of the fence has the wires on the same side as the cattle. The wires are close together, and the cattle cannot push the wires off or get through B's half. Is it A's place to fix his half, or is it B's place? Can B. get pay for fixing A's half of the fence?"

It is A's duty to build his part of the fence, and to keep it in such a condition that it will turn ordinary stock. The wire should be close enough and strong enough so as not to permit cattle to get through. The mere fact that A's land is open to the highway will not excuse him from building his partition fence unless he gives his neighbor six months' notice that he intends to remove his partition

The Family Lawyer

By JUDGE WM. M. ROCKÉL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

fence. Then if he allowed his land to be open to the highway, B. would be compelled to build all the fence if he wishes to pasture his own land. If A. injures B's cattle he will be liable.

WILL WITHOUT MENTION OF CHILD

W. C. J., Tennessee, gives the following: "A man marries, and he and his wife have five children. His wife dies, and he marries the second time. He and his second wife have six children. He makes a will, leaving all his property to maintain his wife, and what property was left after her death was to be equally divided between his last six children. He did not mention the first five children in the will, and he had never provided for them in any way. Can the children of the first wife break the will under the statutes of Tennessee?"

A person has a right to will his property to any person he chooses. It is a common belief among many persons not educated in law that if a child is not mentioned in the will the will is invalid. This is not true. It might possibly apply where a child was absent and supposed to be dead, but afterward should turn up. This would not revoke the will, but such absent child would be entitled to the same share of the estate that he would have been had there been no will made. Otherwise the will would stand.

CONVEYANCE OF UNDIVIDED INTEREST

G. A. K., Indiana, gives this query: "Husband and wife die, leaving real estate clear of all incumbrance, their heirs being all of age. One son had received in money what would be his share, and to make settlement he and his wife make a quitclaim deed of their undivided interest in the estate to all the brothers and sisters. Later another brother buys a sister's interest, and she and her husband give said brother a quitclaim deed of their undivided interest in said estate. Later said sister dies, leaving two minor children. Later the entire estate was sold, part to a stranger and part to the brother who at first relinquished his claim in favor of all the other heirs of said estate. The two deeds were signed by all the heirs of said estate and their husbands and wives except the sister who had died and her husband. Later said brother sold the part of the land he had bought, and the purchaser demands an abstract of title. One party claims that the two minor children of the deceased sister have an interest in said estate, and that guardians would have to be appointed for them and suit brought in court to quiet title. What say you?"

The sister having disposed of her interest during her lifetime, there would be nothing belonging to her two minor children, therefore I cannot understand why there need be suit to quiet title.

LIFE ESTATE

S. A. P., Indiana, asks: "A. lives on a fifty-acre farm. Being overtaken with sickness and misfortune, he was likely to lose it. His father redeemed it, and willed it to him unconditionally for his lifetime, when it is to be divided equally among A's heirs. An interurban railway line took a strip through it without let or hindrance, for which it will pay two hundred dollars. The parties are all living. To whom does the money belong?"

In such a case the son would have the use of the two hundred dollars during his lifetime. The court would probably require him to give bond that at his death the two hundred dollars could be collected and divided among A's heirs.

DOWER

N. N., Nebraska, writes: "A woman dies in Nebraska, leaving a husband and children. Can the husband claim any interest in the property which she had previously inherited? Can the husband claim any interest in property which he had formerly deeded to her for a good-will?"

The husband would have a dower interest in all the real estate of his wife—that is, a life estate in one third—no matter whether it came to her by inheritance or whether he deeded it to her.

BUILDING ON LEASED LAND

J. B., Wisconsin, writes: "A. leases a piece of land to a religious society upon which to build a church for such time as the building is used for church purposes. The building was dedicated to the M. E. Church. The house has not been used for such purpose for one or more years. Since the lease was given A. has sold the land to B. without reserve, B. has sold to C. without reserve, and C. has sold to D. in the same way. Each party knew the house was on the land. We do not claim the lease is good. It is lost, anyway, and cannot be found. The questions are: Can D. hold the house?—Was it necessary to reserve the right in the lease of the land to sell or remove the house when it was no longer needed or used for church purposes?—The lease having expired, and these transfers made, does the society still own the house?—If so, and D. wants the house removed, would he have to give the society certain days' notice?"

I do not think D. could hold the house, for the reason that he knew of the claims of the society, and that the house was built under a lease of the land.—He having such knowledge, it was not necessary to have it reserved in the deed, and the fact that the lease is lost might not destroy its effect if D. had knowledge of the fact that there was such lease.—I think the society still owns the house, as forfeitures are strictly construed by the courts, and before the society could lose its property it would be necessary to prove strictly the fact that the building was abandoned.—If D. wanted the house removed to determine the society's rights, he would have to give notice.

CARE OF THE SICK-ROOM

Your sick-room is best freed from dust, dirt and germs if the sweeping is first done with a cloth-covered broom that has been moistened with water containing a little chloride. The furniture should be dusted with a cloth similarly moistened.

EPILEPSY

One of the most important steps to insist upon is that the patient shall lead a quiet life—if possible, a rural life. A moderate amount of exercise, both physical and mental, is necessary. The diet is also important, and some of our best authorities insist that where bromides are being administered very little salt should be given or allowed in the food, because the bromides will then take the place in the system that is usually occupied by the chlorides. Milk is the most valuable article of diet in these cases. Fresh vegetables, such as peas, string-beans and spinach, with very little salt, is also desirable. Broiled meat in moderation once daily, and baked apples and stewed fruits, with a soft-boiled or soft-poached egg now and then. A fair amount of cereals for breakfast, and toast or stale bread, complete the dietary for the average patient. Cold baths, with thorough rubbing, the first thing in the morning have a wonderful tonic effect, and are also of great advantage in encouraging the proper action of the perspiratory glands. Aside from the specific drug, which is the bromides, there is nothing that tends more to keep the stomach,

The Family Physician

By ROBERT B. HOUSE, M.D.

liver and kidneys in good condition than phosphate of sodium taken in teaspoonful doses—one teaspoonful in a cupful of hot water one hour before breakfast.—Medical Sentinel.

WHOOPING-COUGH

J. A. W., North Carolina, writes: "Please state in your next issue what is good for whooping-cough." There are few diseases in which a larger number of remedies have been recommended. This implies unsatisfactory results. In the catarrhal stage the treatment is the same as for ordinary bronchitis; at least, it must be so, as the nature of the disease is often not suspected. At this time aconite, belladonna, ipecacuanha or hyoscyamus are the main remedies. Belladonna is used in the early part of the paroxysmal stage—violent cough, without expectoration; worse at night; sore throat; injected eyes; nosebleed; cerebral congestion. Drosera is used in the latter part of the paroxysmal stage—with the cough, constriction of the chest; violent paroxysms of cough; worse at night; after the cough, vomiting. Naphthalin in spasmodic stage—violent and frequent paroxysms. Cuprum acet. when the violent paroxysms of cough excite convulsions. Bromoform was introduced as a remedy in 1887 by Stepp, and has become quite popular. Opiates, qui-

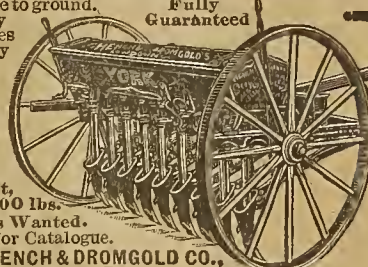
nine, bromides, chloral, antipyrin, phenacetin and other very powerful drugs are employed by many practitioners for the control of the spasmodic stage, but must be rarely necessary. Inhalation of menthol, twenty grains in liquid vaseline in an ordinary nasal spray, as soon as the paroxysm begins or seems impending. Diffuse a fine cloud of spray in front of the face, the spray being held about two feet away. The effect is beneficial, the paroxysm is soon over, and mucus is rapidly expectorated. The inhalations of the vapor of vapo-cresolene, creosote and terebene are also frequently employed. A one-per-cent solution of resorcin applied to the pharynx and larynx as far as possible is effective. Free ventilation, with open windows, and outdoor air when the weather permits, diminishes the number and intensity of the paroxysms. Wool should be worn next to the skin, and exposure to cold and damp avoided. Nourishing food is important.

Quite remarkable results have been secured of late through the fumigation of the patient's night-room by means of burning sulphur. The child is to be removed from the room in the morning, washed, and dressed in clean, fumigated clothing. At the same time the closed sleeping-room is to be fumigated for five or six hours by burning sulphur. One application has proved successful.

As many of the remedies mentioned are dangerous if given in too large doses, they should never be used except by the advice of a physician.

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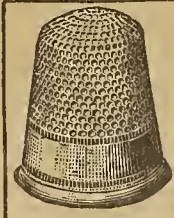
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CRUELTY IN PLANTS

SEVERAL plants characterized as "cruel" have been described by M. Virgile Brandicourt in "Cosmos." M. Brandicourt does not stigmatize the so-called carnivorous plants by this title, evidently considering that a plant, like a man, may legitimately slay what it needs for nourishment. The plants described here

are specimens that do not make use of their prey, and hence may be regarded as killing "for fun." Further investigation may of course relieve them from what we may hope is an undeserved stigma. For the present, however, to M. Brandicourt, at least, they are "cruel." The first of these vegetable monsters is an innocent-looking climbing plant called by botanists "Physianthus albens." Says the writer:

"It begins to flower in the month of August, about the middle of the summer, and it is scarcely in flower when the insects, attracted by its perfume, come in hosts to visit it. The innocent butterflies plunge their delicate probosces into the corolla, hoping to drink therein a delicious nectar, and the imprudent creatures often find themselves caught like mice in a trap.

"The plant has a double ovule surrounded by stamens, that in the physianthus are furnished with saw-like barbules; and these, soft at first, harden when the anthus matures. When a butterfly seeks to reach the nectary of the flower, its proboscis, sliding into a

treacherous tube, becomes engaged with pincers that will not let it go.

"This cruel plant has no excuse for murdering insects in this way. The butterfly that it catches by the proboscis, and which is left to die of hunger, is of no use to it in any way, and we cannot say that the plant is insectivorous, as is the Venus fly-trap ('Dionæa'), for instance, and also the sundew ('Drosera').

"The visits of the insects, nevertheless, are not always useless to these plants, whose heavy pol-



THE PHYSIANTHUS ALBENS

len is not easily scattered. All the insects are not captured; some of the more vigorous escape, covered with pollen, with which they fertilize other plants.

"Mr. Armstrong remarks that the plant, though acclimated in Canada, is a native of Brazil, and that it is exposed to the attacks of more vigorous butterflies and of humming-birds that break down the feeble barrier and carry away the pollen to other flowers.

"North America offers another example of a cruel plant. This is a thistle, the 'Cnicus discolor,' which has been studied by Mr. Blatchley. It has on the inner face of the scales of its involucre a large gland secreting a viscous fluid of which certain insects are very fond. The learned botanist Gray, in his 'Flora,' notes these glands, whose presence or absence serves to determine the species; but he says nothing of the substance that they secrete.

"During the autumn of 1891 Mr. Blatchley was able to observe insects in considerable numbers collected on the scales of the involucre, evidently attracted by the secreted liquid. A more attentive examination enabled him to see that many of these insects were held captive, their legs fastened in the viscous fluid. These insects died in this position, and were so dried that they fell in powder when they were touched.

"The naturalist once found eight beetles grouped at the base of a head of one of the thistles. Only one was stuck by the legs, but the others seemed unwell, as if they had been poisoned by the substance on which they had been feeding. They were in such a state of torpor that they allowed themselves to be caught without difficulty.

"The thistle-heads that received the most frequent visits of the insects were those whose flowers were withered and whose fruit had begun to ripen.

"We cannot, any more than Mr. Blatchley, give an explanation of the use of these glands. Hidden thus in the scales of the involucre, they do not seem to serve, like the sticky hairs of certain species, to protect the plant from the attacks of injurious insects. On the other hand, the insects captured do not appear to serve to nourish the plant, and in the face of this fact we must acknowledge that the use of the glands is therefore unexplained."—The Literary Digest.

HELPFUL HINTS

Children should be taught to stand, sit and walk correctly. An erect habit of standing and sitting broadens the chest and strengthens the spine, giving ample space for the development of sound lungs.

A child who is going to school and who studies well should be encouraged to play out of doors. Out-of-door sports fill the lungs with pure air, make the blood circulate, open the pores, and in other ways counteract the ill effect of sitting confined in the impure air of the school-room.—The Ladies' World.



Around the Fireside

"YELLOW ROSES"

BY LIDA M. KECK

Yellow roses, yellow roses,
Where the busy bumble noses
In delight,
How your beauty makes me tremble,
For the friends of youth assemble
At the sight!

And my quick-spurred memory traces
In the group of shadow-faces
Hov'ring here,
One who now, alas! reposes
'Neath the lilies, 'neath the roses,
Year by year.

How we used to stroll together,
Through the balmy summer weather,
Up and down;
And I used to gather roses
Golden roses, "yellow roses,"
For her crown!

Ah, my roses, yellow roses,
Where the busy bumble noses
In delight,
To my dim eyes let me press you,
Let me touch you and caress you,
Dears, to-night!

SELF-CONSUMING BRAINS

In Wykoff's book, "The Workers," he narrates an interesting and valuable experience through which he passed during some of his arduous experiences in manual labor of the hardest kind. Those who have read the book will recall that this gifted author made a study of the unskilled laborer by joining those motley ranks himself, and by sweat of brow and much discipline of flesh and spirit entered into the experiences of his brother of the calloused hands.

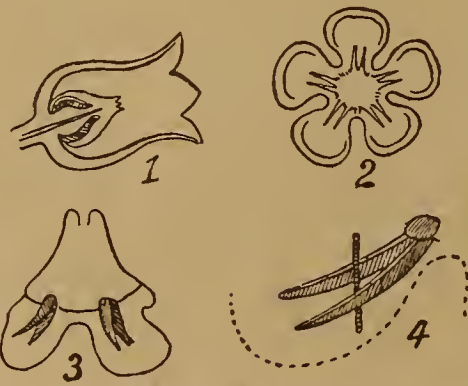
At one period of his experiment, to which he stuck most faithfully, he was called upon to do work that proved almost too much for his endurance. If we remember rightly, it was ditch-digging, and Mr. Wykoff tells us that to keep his exhausted brain from feeding upon itself he put himself through a systematic course of recalling certain pleasant and profitable phases of his past life. This was while he was actually in the ditch and throwing dirt. He sat again in concert-halls, and drank in of symphony and opera; he listened to the music of great oratory; he gathered with friends in social and literary intercourse; in short, via the memories of past days, he took himself away from the downward pull of aching muscles, perspiration, ditch-smells, the cursing of his fellows, and kept his mind hopeful and alert by this other food. In only this way was he able to endure his self-imposed task with a minimum of waste to mental and physical, and what was still more vital, spiritual powers.

This bit of his experience ought to be of great help to most women. How narrowed the lives of the housekeeping, home-making mothers of the world sometimes become. The daily round, the common task, hold us right there in one place the year round and the decade round. Slowly the bright ideals of young womanhood and early wifehood slip away. What of the books we meant to read? What of the correspondence we meant to carry on? What of that fair dream of the character we were to hew out for ourselves? Are we humdrum, irritable, commonplace, inefficient beyond the making of so many beds, the baking of so many pies, the doing of so many household duties, the fulfilment of so many duties?

Without realizing it, we permit our minds to feed upon themselves. They must feed. They are alive. They will have food, and if we do not give them what their normal appetite demands, they will feed on trash or on themselves. Perhaps if it were possible to get at the causes of insanity among women, we should find in most cases that self-consumed minds have been the causes. When our thoughts run aimlessly over the track of past, present and future, without plan or purpose; when we fret and brood and envy and wish and long over things we cannot change or ought not to have, then our life is consuming itself, and the results are sure to be disastrous.

We know how the Master once said unto his disciples when they spoke about eating: "I have meat to eat that ye know not of." Who among those who are reading these words to-day are deprived of things that would minister to delight, as Christ was deprived? Yet do we find him serene, helpful, efficient in all the work to which he set his unselfish hands. He fed on food "convenient" for him—that is to say, literally on food that was "fitting" for him.

If women would offset any tendency to narrowness in their environment, they must feed their minds on fitting food—food worthy of clear brains, hungry hearts, heaven-shaped souls. Perhaps we cannot attend libraries and lectures and clubs, but there is one book open to every one of us—the Scriptures, upon which Christ himself fed daily. Put the Bible where you can read and study it and think about its precious truths.



PHYSIANTHUS IN DETAIL

- 1—Longitudinal section of flower.
- 2—Cross section of flower.
- 3—Diagram of direction of the "jaws."
- 4—Proboscis of butterfly caught in the "jaws."

Faithfulness to the teachings of the sacred page will open other doors and avenues of interest and life, and the mind will no longer feed upon itself.

ADA MELVILLE SHAW.

SICK-ROOM COMFORTS

"Why do you never write about little things to make the sick more comfortable in their homes, and with

home nursing?" asked our dear invalid one day, as she saw me seat myself at my type-writer.

"Why," I answered, "because it seems to me that I know so little. If you have something to tell, though, I will willingly write it for you, Aunt Kate." And then the gentle woman who has been as an angel to the house for many months told me of the small things which I am about to write, hoping that they may be of help to some other sufferer.

"Well," she said, "of all the little comforts, I do not know of one which has been of more satisfaction than this," and she waved her fan at me. When she first knew that she was to be sick a long time, and we wrote of it to our friends, a beautiful young Florida girl who had known and loved her sent the fan to her, with the message that it would make her a very good bedfellow. And so it has proved. It is large and extremely light, made of turkey-feathers cunningly interwoven into a round shape, with the wiry parts of the large feathers forming a handle, which she covered smoothly with fine silk. Aunt Kate uses it for many purposes—it is a fan, a screen, and sometimes a closet of seclusion to hide her face when her thoughts are such as she cannot share with us.

"Then there is the little table which your Cousin John made me." It is a little double-decker, just about the height of the bed, and the right size to hold her tray at meal-times. On the lower shelf she keeps such magazines or books as she happens to have in immediate use, a little basket of the things she likes to keep handy, such as clean handkerchiefs, her nail-scissors, a lead-pencil for marking in her reading, and her tiny book of texts for daily needs. When she cares for flowers in the room, she keeps them on the table, and they can be easily removed at meal-times. Very often, too, I see there a nice fresh lemon. She says the odor of a lemon refreshes her, for, like most sick persons, she cannot tolerate an extracted perfume.

Another comfort is a light but warm little foot-cover, which she can manage to suit herself without calling for assistance when it needs a little readjusting. Hanging near the head of the bed, within easy reach of her hand, is a pretty little linen bag, which holds the smoothly folded soft kimono jacket of wash-silk which was sent her as a Christmas gift. When Aunt Kate feels like sitting up in bed a bit, she simply reaches out and gets it, and slips it on over her gown without any assistance. We wanted to help her at first, but it did not take us a great while to discover that she much preferred to do all she could for herself. She is not the kind of an invalid who likes to be fussed over. When she is ready for it, though, one of us hands her the fat embroidered bolstering-pillow, which is another gift—for our dear lady is a favorite among her kin—and she seems to know exactly where to slip it behind her to prop herself at the most comfortable angle.

"Do not forget this," she said, timidly, as together we enumerated her many comforts. It is only a wide-mouthed bottle wrapped about with clean brown paper, and is the only outward sign of the dread disease which is hers to bear, for she has consumption.

"When I first got sick," she said, "it seemed to me that I could bear all the suffering; but I could not abide the thought of seeing you girls disgusted with what I knew must be—Mabel, you know, is so fastidious—and I was worried beyond measure about what I should do when I began to expectorate. Then I thought of this bottle, that I could manage in my hands and hide out when not in use, and the paper hides what is in it. Dinah says it is not bad to clean, and it is so good not to be always afraid of seeing repulsion in eyes in which I love to be sweet."

"You always are sweet to us," I was glad to assure her; and it is the truth, and I think is worth great stress in any mention of sick-room comforts, that the invalid shows such great consideration for those around her. She seldom speaks of her symptoms, makes no doleful sighs over her condition, and does not arrange for her funeral two or three times a day, as does one other dear old lady that we know.

When I asked her what particular things she most disliked about being an invalid, she said that long-faced visitors were the worst, that big bouquets of white flowers seemed to her a little previous, that tiptoeing and whispering when she had retired behind her fan were particularly harassing, and that although she did not have to suffer anything of the kind at our hands, still she had known the bitterness of being treated like a child or a mild lunatic, when it was her lungs, and not her mental faculties, that were weak. Brother Parsons sends her lots of church papers, and I often see her dear eyes wet with happy tears over some sweet thing she finds in them; but still she enjoys the piles of funny papers which her Nephew Harry sends her now and then, and a laugh on a sick face is a pleasant thing to see when it comes from genuine mirth. She can quote more quaint and jolly things, and remember more jokes, than any one with whom I am acquainted, so that her room is not a doleful place at any time. All in all, I think Aunt Kate is the greatest of all the comforts in her room. SUSIE BOUCHELLE WIGHT.

CURIOUS FACTS

The children of the poor in Japan are nearly always labeled, in case they should stray away from their homes while their mothers are engaged in domestic duties.

In Denmark there are companies that will insure women who have a fear of becoming old maids. They pay stated sums every year, and should they marry before they are forty, what they have paid in goes to the less fortunate. After they are forty they receive pensions for life.—American Cultivator.

POPE LEO XIII.

TO THOSE of our readers who belong to the great body of the Church Catholic we are sure this picture of His Holiness will be a welcome visitor. To those who belong to the Church Protestant it will be the likeness of one of the greatest men the world has ever produced.

We are reproducing in this issue the Pope's ode on death. An Episcopal clergyman has written a tribute to the memory of His Holiness, which is here-with given to our readers.—ED.

"PAPA VERE MORTUUS EST"

BY REV. ALEXANDER C. MCCABE, PH.D.

A girdle of purple circles the globe,
The stars in their courses stand still,
And the earth hath put on a somber-hued robe,

"The grinding is low at the mill."
"Papa vere mortuus est,
Grant to him, Lord, eternal rest."

At Life's cistern there lies a broken wheel,
The grasshopper a burden hath grown,
Through the sunset's gates the gray shadows steal,

And the voice of laughter hath flown.
"Papa vere mortuus est,
Grant to him, Lord, eternal rest."

At the fountain a broken pitcher lies,
While to and fro the mourners go;
From palace and hovel comingled rise
The sounds of a common woe.

"Papa vere mortuus est,
Grant to him, Lord, eternal rest."

The resounding bells of a thousand spires
Unite in a solemn death-toll,
And the flame burns dim in the hearth-stone fires

At the passing from earth of his soul.
"Papa vere mortuus est,
Grant to him, Lord, eternal rest."

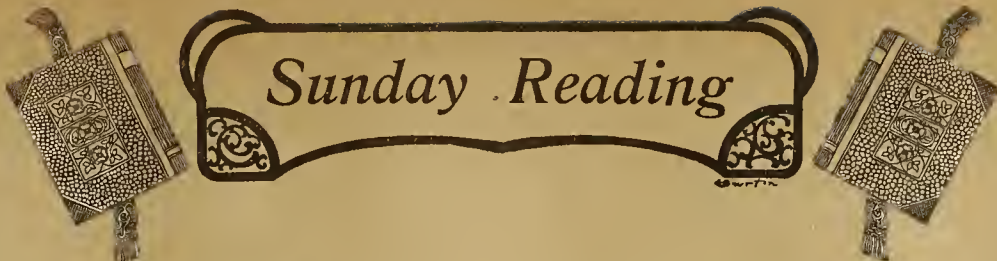
Farewell, dear Father, thy great work is o'er,
Thou hast gloriously done thy part,
In the Church at Rest on the other shore
There is peace for thy mind and heart.

"Papa vere mortuus est,
Grant to him, Lord, eternal rest."

The death of the Pope is officially announced in these words: "Papa vere mortuus est"—the Pope is truly dead.

POPE LEO'S ODE

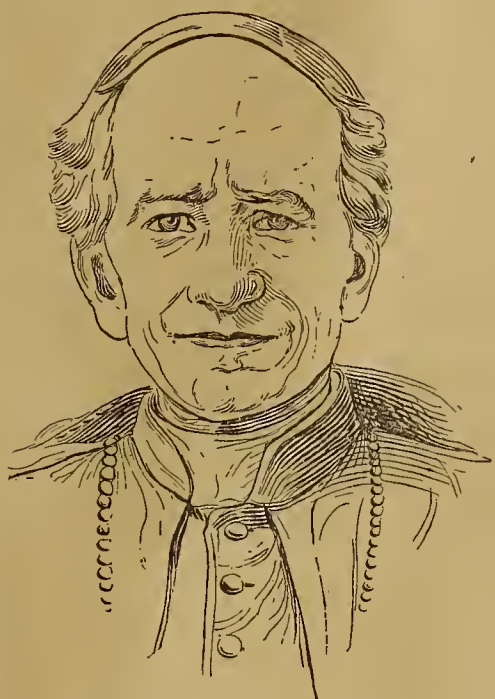
Renowned in letters, famed in art,
The age recedes; of many a thing
Won for man's good from Nature's heart
Who will may sing.



Sunday Reading

The glories of the faded years
I rather backward glancing mourn—
The deeds ill done, the wrongs, the tears
Of the age outworn.

Red wars that reeked with the blood of man,
Wide-wandering license, scepters rent,
Fierce guile that threatens the Vatican—
These I lament.



Where is thy glory, stainless, free,
City of Cities, queenly Rome?
Ages and nations kneeled to thee,
The Pontiff's home.

Woe for a time of Godless laws!
What Faith, what Loyalty abides?
Torn from the shrines, the ancient cause
To ruin glides.

Listen! how science wildly raves
Around the altars overthrown,
Brute Nature, with the world for slaves,
Is God alone!

Not made in God's own image now
Is man—'tis thus the wise dispute—
But sprung from one same cell, they
vow,
Are Man and Brute.

O blinded Pride on chaos hurled!
O Night proclaimed where Light
should be,
Obey thou Him who rules the world,
Man, and be free!

He only is the Truth, the Life,
He only points the heavenward way;
He only frees the soul from strife
If men obey.

'Twas he who led the pious throng
But now to Peter's dust divine;
Of faith to live through ages long,
No empty sign!

Jesus, the Judge of years to be,
Direct the tides, the tempest still,
And make the rebellious people free
To work thy will.

Sow thou the seeds of happy Peace,
All evil drive from us afar,
And bid the rage and tumult cease
Of hateful War.

The minds of Kings and Peoples mold,
Thy words may all enjoy with awe;
Be there one Shepherd and one Fold,
One Faith, one Law.

My course is run; long ninety years
Thy gifts are mine; thy grace retain;
Let not thy servant's prayer and tears
Be poured in vain.

POPE LEO'S POEM ON DEATH

Pope Leo possessed much merit as a poet. He always employed Latin as the language for his muse. The following is a translation by Andrew Lang of his poem on death, which is appropriate to print at this time, when his death is so fresh in our minds:

The sinking sun, descending into night,
Sheds on thee, Leo, its last rays of light.
In thy chilled veins the blood creeps day
by day
Slowly—more slowly—as life ebbs away.

Death casts his dart—thy mortal form,
when cold,
Earth shall receive—the funeral-shroud
enfold.
But from its prison thy glad soul shall
rise,
Stretch wide its wings, and soaring, seek
the skies.

Then, when life's long, hard road has all
been trod,
Ah, if it be thy blessed will, O God,
Grant me, if counted worthy of thy grace,
In thy most blessed heaven to see thy
face!

COMPLETE CHRONOLOGY OF POPE LEO XIII.

Born at Carpineto.....	March 2, 1810
Entered college at Rome.....	1824
Matriculated at Gregorian University.....	1830
Entered College of Noble Ecclesiastics.....	1832
Appointed Domestic Prelate by Gregory XVI.....	1837
Referendary to Court of Segnatura.....	March 16, 1837
Order of priesthood conferred.....	December 31, 1837
Apostolic delegate at Benevento.....	1837-1841
Governor of Spoleto.....	1841-1843
Papal Nuncio at Brussels.....	1843-1845
Made Archbishop of Perugia.....	1846
Created Cardinal.....	December 19, 1853
Made Cardinal Camerlengo.....	July, 1877
Elected Pope.....	February 20, 1878
Revived Roman Catholic Hierarchy in Scotland.....	March 4, 1878
Encyclical condemning communism, socialism and nihilism.....	December 28, 1878
Encyclical against heresy, socialism.....	November 5, 1882
Recognized unity of Italy, October 7, 1883	1883
Encyclical condemning liberalism.....	November 6, 1885
Celebrated golden jubilee.....	1887
Celebrated grand jubilee.....	1888
Encyclical on socialism and labor.....	May 16, 1891
Celebrated Episcopal jubilee.....	February, 1893
Issued appeal to England for reunion of Christendom.....	April 14, 1894
Celebrated sixtieth anniversary of his first mass.....	February 13, 1898
Declared 1900 a year of universal jubilee.....	May 11, 1899
Held consistory and created eleven new cardinals.....	June 19, 1899
Celebrated ninetieth birthday.....	March 2, 1900
Died in Vatican.....	July 20, 1903

A CASE OF BIRD-REASONING

ONE of the most remarkable examples of bird-reasoning that ever came under my notice occurred a short time ago near my residence in Peace Dale, R. I.

In the village are two large woolen-factories, and between the upper one and a pond is a long canal, or mill-race. Through this race, when the factories are running, the water flows very swiftly. Near the upper mill and leaning over the race is a small tree, its slender branches bending down almost to the surface of the water.

One day a pair of robins were noticed examining this tree, and an hour or so later they were busily engaged in building a nest in a fork of one of the branches, directly over the swiftest part of the race.

Many curious eyes watched them from the factory windows. The place was so exposed, and yet so inaccessible—almost within arm's length of the public road, and yet beyond reach of the most agile cat, whose weight would be too heavy for the slender branch.

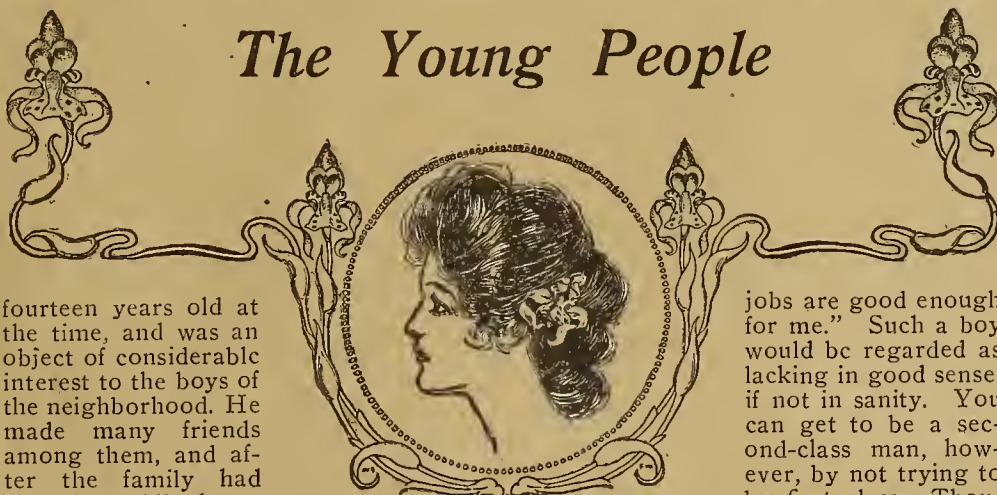
By noon the next day the nest was two thirds completed; then suddenly, to the surprise of the two or three who happened to be watching at the time, the robins ceased work, as though in sudden doubt. Evidently a new idea had occurred to them, or the knowledge of something overlooked, for after a hurried consultation they began to remove the nest, carrying it away straw by straw. Later it was discovered that they had rebuilt in a thick clump of alders, and only a few feet from the ground.

And the reason was too plain even for speculation. The robins' first idea had been to put their home beyond reach of boys and predatory animals. Here the mill-race had seemed a safeguard to them. Then they must have looked forward to the time when their little ones would be old enough to leave the nest, but too weak to fly. What would happen to them with that mad rush of water beneath? So they had removed their nest, of two evils choosing the least. S.

CARNEGIE WON THE RACE

When Andrew Carnegie's parents first came to America from Scotland they went to East Liverpool, Ohio, to stay with some relatives. Their son was about

The Young People



fourteen years old at the time, and was an object of considerable interest to the boys of the neighborhood. He made many friends among them, and after the family had moved to Allegheny, Pa., often returned to East Liverpool to visit some of his friends and playmates. On one occasion, when he was sixteen years old, he went with his cousin to visit William and Michael Fisher, who lived on a farm about half a mile from the town. The four boys spent some time in examining the pet rabbits and other objects of interest, and at length, when they were all standing at the top of a grassy slope, William Fisher challenged Carnegie to a foot-race.

"Well," said Andrew, "you're a lot taller than I am, and your legs are longer, and I believe you can beat me, but I'll race you just the same."

The two boys started, and as Andrew had forseen, the Fisher boy easily outran him. The little Scotchman was by no means discouraged because the chances seemed all against him, but kept running. About half way down the slope the Fisher boy stopped, considering it useless to run further. To his surprise, Carnegie continued his pace, and arrived at the bottom far ahead of him.

"That's not fair," said Fisher, "because I stopped."

"Yes, I knew you'd stop," said Carnegie in reply, "and that's why I kept on running. Have you ever heard the fable of the turtle and the hare?"—Success.

DO NOT BE A SECOND-CLASS MAN

You can hardly imagine a boy saying, "I am going to be a second-class man. I don't want to be first class, and get the good jobs, the high pay. Second-class

jobs are good enough for me." Such a boy would be regarded as lacking in good sense, if not in sanity. You can get to be a second-class man, however, by not trying to be first class. Thou-

sands do that all the time, so that second-class men are a drug on the market.

Second-class things are wanted only when first-class cannot be had. You wear first-class clothes if you can pay for them, eat first-class butter, first-class meat and first-class bread; or if you do not, you wish you could. Second-class men are no more wanted than any other second-class commodity. They are taken and used when the better article is scarce, or is too high-priced for the occasion. For work that really amounts to anything, first-class men are wanted.

Many things make second-class men. A man menaced by dissipation, whose understanding is dull and slow, whose growth has been stunted, is a second-class man, if indeed he is not third class. A man who through his amusements in his hours of leisure exhausts his strength and vitality, vitiates his blood, wears his nerves until his limbs tremble like leaves in the wind, is only half a man, and could in no sense be called first class.—Success.

ANATOMICAL

The body has about five hundred muscles.

The lower limbs contain thirty bones each.

There are twenty-five thousand pores in the hand of a man.

Man is the only animal that possesses a real nose and chin.

The human skeleton, exclusive of teeth, consists of two hundred and eight bones.

The eight muscles of the human jaw exert a force of about five hundred pounds.

The wrist contains eight bones, the palm five, the fingers fourteen.

The smallest bone in the human body is in the lenticular, seated in the ear.

The work performed by the human heart each twenty-four hours is equal to the lifting of one hundred and twenty-nine tons to a height of one foot in that length of time.—Youth's Guardian Friend.

QUEEN ALEXANDRA'S PIANOS

At the time of her marriage, forty years ago, Queen Alexandra received nineteen pianos as wedding presents. Every one of these elaborate instruments is still in perfect condition.—American Cultivator.

A KITCHEN GAME

BY MAY MYRTLE FRENCH

Young Johnny by the kitchen door
Had let a costly vase fall;
And, scared beyond his little sense,
Let out a sudden "base bawl."

"Let's have a 'game,'" the stove then cried
(It was a large "base"-burner),
And caught the "bawl" that John threw out,
And tossed it to Cake Turner.

A pie-pan made a good "home-plate"
(Kind R. Pin made it flatter);
When Johnny blinked, they seized the "bat"—
Young Cake of course was "batter."

They chose M. Syrup "pitcher" first,
Because he'd had most practice;
As "umpire," one must keep quite cool,
A. Tin Cup full of cracked ice.

O'Clock was best of all to play,
He's such a famous "runner";
And when it came to "making strikes"
He surely was a stunner.

The game was going merrily,
In fact "just like the Dickens,"
When some one made a "wild foul strike"
And hit the roasting chickens!

B. Honey made his well-known "run,"
Loud cheers still kept the din up;
When Cook appearing, stopped the fun—
The game was "called" by Tin Cup.

CATERING TO THE WEATHER

PROTEST against it as we may, food has a great deal to do with our moral and ethical welfare, if not with our spiritual interests. How far we may blame or praise the cook for our future is something we may each find out "further on." The woman whose only care is to cook three "meals of victuals" daily, and get them on the table with a commendable measure of regularity and taste, has fallen far short of her calling—and this statement is so common as to sound very trite in the editor's ears, if not in the "gentle reader's." All the same, it would be interesting to know how many of the women reading this article studied the weather when preparing the day's menu any time this week. I do not mean simply whether it was hot or cold—that is to say, whether it was summer or winter—but the particular weather of the hour.

When you set out to think about it, you will be surprised to find that on cloudy days certain things taste better than on other days. On a rainy day an old-fashioned Irish stew, simply served, with fresh bread and butter and "a bouncing good cup of coffee," will taste better to some palates than a dinner of half a dozen much more expensive and troublesome dishes. Beans, soup, hash, salads, chocolate, lemonade, cold



—Modes.

meats, fruits, confections and nuts are all curiously related to the weather, and the woman who finds out what that relation is will call blessings down upon her witty head.

Now a word as to another kind of weather—the home atmosphere. Sometimes it is "jolly fine," not a cloud in the sky, brisk breezes of success flying, and everything lovely. On such days the regulation meals of "meat an' taters" go down with zest. But whiff! a cloud blows up—or down. Instead of paying less attention to what to eat, the house-mother must pay more. An apple turnover "like we had when we were children," may turn ungraciousness into smiles. A dish of "toffy" may stop a surprised mouth from ugly words. A cup of cocoa with whipped cream may smooth over an irritation. Even a baked potato, cracked open, a bit of butter tucked into the gaping, steaming snow, and the whole daintily dressed in a white doily, may beguile an appetite which dull care had threatened to steal away.

The culinary fairy may also be made to conquer another kind of weather—the doubtful atmosphere which the unwelcome caller brings with her. Almost every family has one or two callers who never come unless it be with a tale of woe or a piece of ill gossiping or neighborly (?) complaining. The writer went to call upon a woman whose temper she rather dreaded, and to whom she went with an embarrassing errand. Now it so chanced (again I want to use a ?) that this callee was enjoying some ice-cream with her family, and before the caller could get out a word about her dreaded errand, a dish of cream was brought in, and because of its temporary characteristics, had to be eaten right off. When the saucer was empty, and had been carried away, the hostess was smiling with conscious benevolence, and the caller, very smooth and cool inside, said what she had to say with gentle fearlessness.

Only a few days ago the writer was called upon by one who is known as the neighborhood "crank." Excusing herself a few minutes, she reentered the parlor with a server, on which was a cup of tea made in the Chinese way—by pouring boiling water on the leaves in the cup—a cube of lemon for the Russian flavor, and two cheese wafers. Result? The "crank" was so surprised, so grateful and so tea-absorbed that her visit lost half its acidity.

Since we must eat to live, and since life is such a series of vanishing-points between the temporal and spiritual, let us put the pantry to its highest uses, and "use" it as a means of conquest and defense as well as sustenance.

—ADA MELVILLE SHAW.

SCOLDING OR SUBSTITUTION, WHICH?

The mother who has learned much of the art of substitution need not be particular to acquire much of the science of scolding.

Children very often become cross and irritable only because they need sleep, and the wise mother will realize this, and substitute a good nap in place of the intended scolding.

A child becomes nervous, and perhaps angry, because he cannot make his new toy act as he wants it to. Let the mother gently show him where the trouble lies, and she will have a sunny-tempered child in a very few minutes.

The little man has fallen, and bumped his head; he begins to cry, as a matter of course and because he has nothing else to occupy his mind just then. But let a circus procession pass by, and his faculties are immediately awake, and his bumped head is instantly forgotten.



The Housewife

This same idea can be utilized to a wonderful advantage in the home. Children can be made to forget severe pain if their minds are taken from themselves by outside forces. They can also be made to take great pleasure in helping mama if the work can be made to resemble play.

And as our darlings grow older we can substitute the best books, the best lines of thought and action, the most uplifting amusements, the most ennobling occupations, for those of a poorer kind. That is, we will be able to do so if we have been doing this from infancy. We must begin when the minds are tender, and day after day gently lead, not scold, along.

—ELLA BARTLETT SIMMONS.

TO USE GREEN GRAPES

CANNED GREEN GRAPES NO. 1.—Stem the grapes, wash, drain, and cover with boiling water. Let stand ten minutes, then drain off the water, putting the pulp in a preserving-kettle and the seeds by themselves. Boil the pulp until the seeds separate, then press through a colander. Add the skins, measure, and add one cupful of sugar to each two cupfuls of grapes. Cook ten minutes, and seal boiling-hot.

CANNED GREEN GRAPES NO. 2.—Stem the grapes, wash, and drain well. Fill glass jars nearly full, and shake them down well, but do not bruise. Make a syrup in the proportion of four cupfuls of water and three cupfuls of sugar to each five quarts of grapes. Pour it over the grapes until the jars are full, put on the rubbers and covers, but do not screw down tightly. Stand the jars in a boiler or large kettle, with plates or pieces of thin board under them and a little straw between them. Put enough hot water in the boiler or kettle to reach almost to the tops of the jars, and allow them to boil for fifteen minutes, then screw the covers down tightly, and set away.

GREEN-GRAPE JAM.—Stem the grapes, and simmer in a preserving-kettle with one half cupful of cold water until soft. Rub through a colander, then through a sieve. Measure, and to every pint of juice allow three fourths of a pound of granulated sugar. Boil the pulp and sugar steadily for fifteen minutes, stirring constantly to prevent scorching. Seal boiling-hot in pint jars; or it may be put into jelly-glasses, and when cold sealed like jelly.

GREEN-GRAPE JELLY.—Stem and wash the grapes, and pick over carefully, removing all imperfect fruit. Add one cupful of sugar to each two pounds of grapes, and simmer in a preserving-kettle until perfectly soft. Strain, measure, and allow three fourths of a pound of sugar to each pint of juice. Boil the juice rapidly for ten minutes, add the sugar, stir until dissolved, and boil rapidly ten minutes longer. Pour into jelly-glasses, and after twenty-four hours seal.

GREEN-GRAPE CHUTNEY.—Chop one and one half pounds of green apples, and put in a preserving-kettle with two pounds of seeded raisins, four ounces of salt, one ounce of garlic, one teaspoonful of onion-juice, one ounce each of grated ginger and horse-radish, one half teaspoonful of cayenne and one pint of best vinegar. Cook slowly in the preserving-kettle until reduced to a pulp, turn into a porcelain or earthenware dish, add one half pint of brown sugar, and stir daily for a week, then put in small jars, and seal tightly. Keep in a cool, dry cellar.

GREEN-GRAPE CATCHUP.—Select grapes just beginning to turn. Stem, scald, and strain. To five pounds of grapes allow two and one half pounds of brown sugar, one pint of vinegar, one tablespoonful each of salt, pepper, cloves, cinnamon and allspice. Boil until rather thick, and seal immediately. Tie the spices in a little piece of muslin.

GREEN-GRAPE PIE.—Line an inch pie-plate with good paste, sprinkle over the bottom two heaping tablespoonfuls each of sugar and flour (or one of corn-starch), then fill with pulped green grapes, spread over two tablespoonfuls of grape jelly, sprinkle with four tablespoonfuls of sugar mixed with one tablespoonful of corn-starch, and add two tablespoonfuls of cold water. Cover with a nice upper crust, and bake in a good oven. Serve with plain or whipped cream.

—MARY FOSTER SNIDER.

CRAB-APPLE FAVORITES

PRESERVED CRAB-APPLES.—Select very ripe, sound apples for preserving. Wash them well, just cover with boiling water, and cook very slowly in a preserving-kettle until the skins can be easily removed. Drain, peel, and carefully remove the cores without breaking the apples or removing the stems. Allow one and one fourth pounds of sugar and one cupful of water to each pound of fruit. Bring the sugar and water to a boil over the fire, skim thoroughly, and put the apples in carefully. Cook very gently until the fruit is tender and transparent. Skim as required while cooking. Put into small, wide-mouthed jars, and when cold seal. This recipe will make a preserve both handsome and delicious, and although rather more trouble, is far superior to the usual rule.

CRAB-APPLE PRESERVES.—Cook the apples whole or cut in halves as preferred, but in either case remove the cores. Boil in clear water until tender, but not broken. Skim out, and weigh. Allow one pound of granulated sugar for each pound of fruit. Add the sugar to the water in which the apples were cooked, and boil until clear—about five minutes. Skim thoroughly, put in the fruit, and simmer gently a few minutes. If cooked too long the apples will fall to pieces. Two whole cloves stuck in each apple improves the flavor. Seal at once.

CRAB-APPLE JELLY.—Wash, and cut out all imperfect parts. Cover with water, and cook until soft. Pour into a jelly-bag, and drain without squeezing. Measure, and allow one pint of sugar to one pint of juice. Boil the juice rapidly for ten minutes, then add

the sugar, and boil ten minutes longer. Pour into hot jelly-glasses, and let stand undisturbed for twenty-four hours, then seal, and keep in a cool, dry place.

A delicious marmalade may be made of the fruit left in the jelly-bag after the juice has drained off. Press it through a coarse strainer, measure, and add brown sugar, pound for pound. Cook until thick and rich, stirring constantly to prevent burning. This is especially appreciated in the winter with whipped cream, and as a filling for sandwiches for school-lunches is an agreeable change.

CRAB-APPLE PIE.—Stew the fruit, and press through a colander. Make rather sweet, and flavor with lemon. Bake in two rich crusts, and serve with or without sweet, thick cream.

CRAB-APPLE SWEET PICKLES.—Prepare the fruit as in the first recipe for preserves, and when cooked tender enough, drain. Dissolve four pounds of sugar in one pint of vinegar over the fire. Mix one ounce of ginger-root, two teaspoonfuls each of allspice and cinnamon and one half teaspoonful of ground cloves. Put them into four small muslin bags, and add to the vinegar and sugar. Let it boil up, then add the apples. Bring again to the boiling-point, then put the fruit in stone jars, and pour the vinegar over it. Let stand until morning, then pour off the juice, place it over the fire, and bring again to the boiling-point. Pour it back over the apples in the stone jar, and let stand another twenty-four hours. The next day boil the juice again, and pour it boiling-hot over the fruit. Repeat for eight days, then boil the syrup down until there is barely enough to cover the apples, put in the fruit, let slowly come to a boil again, and put carefully into jars. Tie up the same as for jelly.

CRAB-APPLE PUDDING.—Wash and core the fruit, but do not pare it. Cook in a little water until tender, sweeten to taste, and put in a pudding-dish. Pour over a batter made with two eggs, one pint of flour, two teaspoonfuls of baking-powder, a little salt, and milk to mix soft, and steam one and one half hours. Serve with sweet liquid sauce or with cream and sugar.

—M. F. S.

"SOUR-CREAM POSSIBILITIES"

Sour cream is an indispensable ingredient on our "bake-days," and those who try the following thoroughly tested recipes will appreciate their value as to convenience, economy and satisfactory result.

Delicious cookies of which the cooky-box is seldom empty are made from one and one half teacupfuls of sugar, one small cupful of butter, one cupful of thin sour cream, one well-beaten egg, one level teaspoonful of soda, spice to taste, a little salt, and flour sufficient to roll out. Mix rather soft, and bake in a quick oven.

WHITE CAKE.—One cupful of granulated sugar, one cupful of rich sour cream, one teaspoonful of flavoring extract, and two cupfuls of flour. Whip smooth and creamy, then add one half teaspoonful of soda and one teaspoonful of cream of tartar mixed with a little flour, and lastly the well-beaten whites of two eggs. Mix without beating, and bake in two layers.

CORN-BREAD.—One pint of sifted corn-meal, one egg, one teaspoonful of soda, one heaping teaspoonful of cream of tartar, and a little salt. Thin with one half cupful of sour cream, then add sour milk until it will pour quite freely. Bake twenty minutes.

Is there any among you possessing a fondness for "Dutch dishes?" Then if you wish to cultivate it, try



—The Modern Priscilla (Boston).

DAISY CENTERPIECE

an onion pie. Take one beaten egg, one tablespoonful of flour, one cupful of sour cream, one minced onion, salt to taste, a sprinkle of pepper, and bake with one crust.

—M. M. H.

TO DRY-CLEAN HAIR-BRUSHES

Many people have an objection to wetting their brushes, and for those we give this excellent method of cleaning them perfectly. It takes a little time and patience, but nothing else. Take the brush by the handle, and strike gently but firmly the whole face of the bristles on a board or other smooth surface. After twenty-five strokes you will find that the dirt has nearly all gone, and the "woolly" stuff that gathers at the base of the bristles has come down to the ends, where a comb will quickly remove it. Keep this up until the brush is clean. This is not hard to do, and does no harm to the brush.

—MAY MYRTLE FRENCH.

LEMON-WATER ICE.—To a heaping tablespoonful of gelatine dissolved in two gills of cold water, add one quart of boiling water, twelve ounces of sugar and the strained juice of eight lemons; mix thoroughly, strain and freeze.



How to Dress

LADIES' PLAITED COAT WITH STOLE COLLAR

MORE attention is given to outside garments for summer wear than they have received for a long time. This is probably due to the fact that they are so tastefully designed and made of such thin material.

The coat illustrated is developed in white silk voile, unlined, making a cool and most appropriate garment for warm-weather wear. It is simply adjusted with shoulder and under-arm seams.



LADIES' PLAITED COAT WITH STOLE COLLAR

Two tucks on each side of an inverted box-plait in the center back are stitched down part way. In front there are three tucks that are stitched almost to the hem, the fullness from the tucks increasing the width at the lower edge.

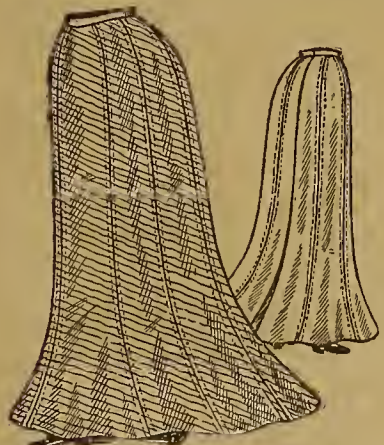
The coat fits well on the shoulders, and hangs loosely in box effect. Deep tucks in the sleeve terminate near the wrist. The sleeves are very wide at the bottom, where the fullness is arranged on lace cuffs. If a flowing sleeve is desired, the cuffs may be omitted, as shown in the small illustration.

A broad lace collar completes the neck and extends over the shoulders, giving them a fashionable droop. Long stole ends on the collar are extended below the coat in front. The stole is trimmed with fancy silk ornaments. Coats in this style made of linen, mercerized cotton and other heavy wash-fabrics, with coarse lace collars and cuffs, are very fashionable. The mode may also be developed in shantung, pongee or brilliantine, with collars of self fabric trimmed with bands of Persian embroidery.

LADIES' NINE-GORED FLARE SKIRT, INSTEP-LENGTH

During the summer months train skirts seem a burden to carry around, and ankle or instep-length models receive more favor than they do in cooler weather. Some of the smartest pongee and taffeta shirt-waist suits have skirts that just clear the ground, and almost all costumes intended to be worn when traveling are made with round skirts.

The illustration shows a stylish skirt made of dark gray and black cotton



LADIES' NINE-GORED FLARE SKIRT, INSTEP-LENGTH

cheviot of a heavy quality. It is shaped with nine well-proportioned gores fitted smoothly around the waist and hips without darts, and closes invisibly at the center back under two inverted plaits that present a perfectly plain appearance. In some skirts these plaits are flatly pressed, while others are, stitched on the edges half way down in habit effect.

A sheath adjustment is made from belt to knee. Below that point each gore flares widely, and there is a stylish, graceful

sweep at the hem that is especially attractive in skirts that do not touch the ground. Machine-stitching on the seams provides a tailor finish.

Skirts in this style are made of silk, light-weight woolen fabrics, brilliantine or heavy wash-materials, such as butchers' linen, cotton, cheviot, piqué or madras. The numerous seams afford a good opportunity for quite elaborate trimming with braid, ribbons, lace or embroidery.

LADIES' NEGLIGÉE TOILETTE

Many sets of lingerie and imported bridal outfits have dressing-sacques to match the petticoats. This is a dainty idea, because the two garments are usually worn together, and should be made of the same material and trimming.

The toilette illustrated is made of white wash-silk, with elaborate lace trimmings. In the dressing-sacque the full front and back are tucked in clusters of three and applied at the lower edge of a shallow lace yoke. This is cut out V-shape at the neck. The tucks are stitched down part way, spaces between the clusters being trimmed with bands of lace.

Frills of lace trim the lower edge of the sacque, and bands finish the front and lower edges. The full sleeves are tucked to match the body of the sacque, and attached to the edge of a short lace cap. They are very wide at the hand, and flare in bell effect.

The petticoat has a smoothly fitted shaped yoke, which fastens at the back and displays no fullness. The skirt is of circular shaping, and is attached to the yoke, the fullness at the back being distributed in fine gathers. The skirt pattern is given full length, and the flounce may be applied or it may be finished so that it will form its lower portion.

The full flounce is headed by a ruching



LADIES' NEGLIGÉE TOILETTE

of silk, and trimmed with three narrow ruffles, which give additional flare at the lower edge. Bands of lace and motifs are decoratively applied.

Costumes of this kind are made of nainsook, lawn, French cambric and batiste, with lace and ribbon decorations.

LADIES' SHIRT-WAIST

Ecru and red polka-dot pongee is used for the stylish blouse illustrated, with red velvet ribbon and Persian embroidery for trimming.

It is mounted on a glove-fitting featherboned lining that closes in the center front. The back is plain across the shoulders, and drawn down close to the belt, where the slight fullness is arranged in small plaits.

The closing is made in double-breasted style with garnet buttons and button-holes worked through a box-plait that extends from shoulder to waist on the left side. Deep tucks in the waist are stitched down to form a pointed yoke, and provide becoming fullness of the bust. Narrow red velvet ribbon applied on the edges makes an effective trimming.

A plain collar of Persian embroidery completes the neck, and fastens on the left side. The puff sleeve is plain at the top and attached to the lower edge of a short fitted puff under a tuck on the end. The sleeves are very wide at the wrist, where the fullness is arranged on bands that match the collar.

Waists in this style are made of India

silk, taffeta, foulard, albatross and veiling, also linen, piqué, lawn and madras. The tucks may be finished with narrow lace, quilled, or bands of embroidery applied between the tucks.

LADIES' TRIPLE SKIRT

The stylish skirt illustrated is made of pale green and black polka-dot foulard, with broad bands of black lace trimming. It is made over a fitted foundation of green taffeta cut off below the knee.

The lower flounce, which is of circular



LADIES' SHIRT-WAIST

shaping, is attached to the edge of this skirt, and forms the lower portion of the skirt. It flares widely at the lower edge, falling in long, graceful folds to the floor. The skirt touches in front, and has a decided sweep at the back.

The middle flounce is applied to the silk foundation on the indicated line of perforations, flaring slightly at the hem. The upper flounce is included in the belt, and fitted smoothly around the waist with small darts. It is closely adjusted.

The skirt closes invisibly at the center back in habit effect. Broad bands of lace finish each flounce. Skirts in this style are not often becoming to figures that are inclined to be stout. They are more appropriate for tall, slender women.

The mode may be developed in pongee, India silk, veiling, Liberty satin, grenadine, albatross or voile, and trimmed with bands of self fabric or adorned with bands of lace, embroidery and ribbon.

FASHION NOTES

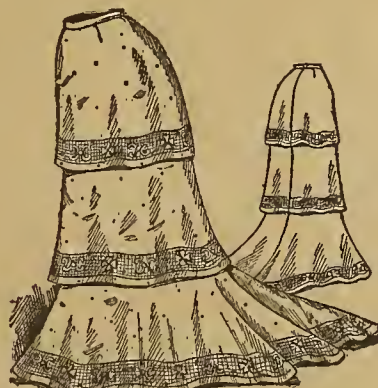
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"Good heavens! Edna, you cannot love me, or you would not take things so coolly!" exclaimed Kirk Luce, wiping the perspiration from his brow. "It is a crime for your father to keep us apart—"

"A crime? And you would have me commit another. You think that it runs in our family," she retorted, with spirit.

"No such thing!" he flung back. "You are of age. You should be your own mistress. An elopement under the circumstances would be no crime—would be no shame even. The shame is with your father for standing between us—"

"No more is father's action a crime," she interjected, loyally. "I'll grant he is wrong. But an elopement would be equally wrong, and two wrongs won't make matters right. No; you must be patient. Kirk. You must be reasonable, and wait."

She was not angry with him because of his proposal. There was something almost maternal in her tone.

"Patient! Haven't I been for two years?" cried the young man, bitterly. "Reasonable! Your father is the only one who has any reason. He has a monopoly of that," Kirk added, ironically. "He has a quarrel with my family because the old Kruble farm is divided. And now, when the first and only opportunity to reunite the estate is presented, he persists in his grudge. That is reason with a vengeance!"

The spirited argument took place in the little grove between the farms. The full moon, reflecting a soft radiance over rolling fields and meadows, made the summer night an ideal one. Crickets chirped in the tall grass; from a distant pond a chorus of frogs poured a bass melody into the balmy air, while from a stump a tree-toad in shrill falsetto predicted rain.

"I cannot make father different. And he is my father," Edna Kruble said; and where first there was regret in her voice, there followed pride and loyalty, that made the young man despair of ever claiming her as his own.

Away back in the days when the state was yet a territory, the first Jeremiah Kruble, then a sturdy young man of the Ethan Allen type, had worked his way west from Vermont along the newly completed Erie Canal, worked his passage across Lake Erie and up the river to Detroit. Here he worked a year, building Michigan's first capitol, far out on the common. He husbanded his earnings, and in the dead of winter tramped inland, where he located the square mile of government land ever since known as the Kruble farm. He cleared a few acres, built a log house, put in his crops, and the second winter went back to Vermont for his bride.

Two children were born to them, a son and a daughter, and between these in the course of time the paternal acres were divided. The daughter married a shiftless, worthless fellow, who at once quarreled with his brother-in-law, refusing to sell to him the sacred acres of his father's while yet disposing of all. A part of the land he sold to a thrifty brother, Lucas Luce—Kirk's father in time—but the larger portion for the present fell into alien hands. However, Lucas Luce made purchases from year to year, always out-bidding Jeremiah's son, Jeremiah, Jr.—Edna's father now—until at last all of the sister's portion came into his possession. Because of the brothers' action, Jeremiah, Jr., charged the whole Luce family with shabby treatment, and thenceforward allowed all the worm-wood and gall of his New England inheritance to go out against them and theirs.

Thus what had been one farm came to be two, back to back, with faces lying along parallel roads leading to the neighboring city. Edna Kruble was born on the site of the early Kruble home, long since adorned by a modern house. In a severely plain house on the other road, Kirk Luce had first seen the light two years earlier, carried to a window in the arms of a kindly neighbor hastily summoned in his mother's extremity. Though only a mile of pleasant meadow and enticing woodland intervened, an insurmountable wall separated them through the ill-feeling cherished by the girl's father. During all their youth Edna went to one district school, while Kirk trudged up the other road, and turned the corner in an opposite direction, to another school two miles from the first; and it may be said that until their college days they had scarcely seen each other. The feeling between the families was well known to the children, and in their simple minds each had pictured the parent of the other as a sort of Satan incarnate.

But years are ruthless destroyers of infantile fancies. As the belief in Santa Claus had gone, and the knowledge came that one's grandfather was not the first man, but that he had had a father who had had a father—a chain the beginning of which no man knoweth—and as they were given an education far in advance of their parents, the two began early to see with a clearer vision. As to intercourse between them, there remained enough of the flavor of forbidden fruit to make each exceedingly interesting to the other, when at last, away at college, they met beyond the shadow of parental frowns. The boy possessed a well-built, manly frame, was bright and intelligent, and active in all athletic sports. He had, however, made his record at their alma mater as an orator. Edna was the acknowledged beauty of her class. But she had other more enduring qualities—a clear-cut faculty of seeing the eternal fitness of things, and a manner that was simple and homely, making her altogether irresistible. Standing out from their fellows so, it was well-nigh inevitable that they should come together at last and fall irrevocably in love with each other.

"Edna, you must listen to me," expostulated her lover, growing desperate under the ravishing moon. "It makes me feel mean and despicable to meet you here secretly. One bold stroke now, and we'll have done with this. I can have the new house father is building on the east eighty—"

"Never!" interrupted the girl, fearing to let him go on. "If this makes you feel mean and despicable, you know how the thoughts of an elopement affect me. No, Kirk, much as I love you, I'll not marry you against father's will." Kirk felt that Ethan Allen ring in her voice—it had come to her from the grandfather—and the lover suffered a hopeless depression about

A Problem with a Corollary

By ALBERT LATHROP LAWRENCE

the heart. But her next words cheered him. "I believe father's consent can be won if we are patient and act right," she continued. "Throw yourself in his way, Kirk. Compel him to know you. Overcome his prejudice. If you can't do this I shall think you have concluded that I'm not worth the effort—"

"Oh, that's you always, Edna!" he interjected, impatient of her calm reasoning, which to him promised only a continuation of their intolerable position.

"And since it makes you feel mean and despicable to meet me here," she added, "I shall not come again. But I shall remain true to you always, Kirk. We can continue our letters as before. No; do not follow me. Father has forbidden you to step on his land."

Kirk would gladly have seized her then and there, after the fashion of his prehistoric ancestors, and carried her off, but the thing was clearly impossible. There was law and order in the land, and Edna stood for these. He did seize her, though, and forced her kisses under the summer moon, but in the end was obliged to let her go with only the repeated assurance that she would wait until he won her father's consent. This was the task she had put upon him from the beginning, two years since, when they had come home from college, where first their love was plighted. She had faith in his ability to win her after the most approved, conventional fashion. He had compelled her love while yet she shrank from him, owing to the family traditions. Why should he not win her father by the same superior, manly qualities?

"Throw yourself in his way." Kirk, ever thinking of the problem, repeated his sweetheart's advice many times after that night in the grove. "Surely not to block him?" he would question. "Compel him to know you," she had said. "Overcome his prejudice." Old Kruble was known as a public-spirited citizen despite certain miserliness with which he clung to his dollars—the trait that was more to blame for the loss of half the Kruble acres than anything else. He was, moreover, a shrewd partizan politician, esteemed the opinion of his neighbors, and was conscientious in a narrow way. Did Edna's advice mean that he, Kirk, was to go into politics? Kruble and he belonged to different parties. Would he not be likely to cross the old man's path, and so increase his ire? But if he could once get him on the hip, and force the consent that was so contemptuously withheld! Kirk exulted in this thought.

For twenty years it had been the ambition of Jeremiah Kruble to prefix the title "Honorable" to his name. Beneath his horny hide lurked considerable of the snob. It was as the head of a landed estate that he loved to think of himself, and this as much as anything had fixed his desire on the ancestral acres. He saw but one way to win the title, and that was to get himself elected to the state legislature. For two decades he had striven with this object in view. He had held every township office, from roadmaster up. He was now chairman of the Republican committee of his district, and the "machine" regarded him as the most promising "practical politician" in that part of the county. Again and again had his name come up for nomination in the representative convention, but always to meet defeat at the hands of some rising young lawyer from the city. But after the Republicans had been twice defeated at the polls, a candidate from the country seemed their only salvation. Thus when the nomination was no longer equivalent to an election, but rather the beginning of a sharp and bitter struggle, with doubtful promise of success, old Jeremiah Kruble succeeded in shaking his long-ripening plum from the political tree.

The Democrat who had twice led his party to victory was Benton Hoyt. Like Kruble, he was a farmer, and advanced in years. However, unlike Kruble, who had given his friends to understand that one term would do him, Hoyt was not even satisfied with two, but was pushing his name for a second renomination. Men of his political faith, long out of office, were clamoring to have the good things passed around; so while Hoyt's election was generally conceded if renominated, it was believed the party would make its usual blunder and put up some less popular man.

So bitter did the contention become that at last a faction resolved upon the defeat of Hoyt at any price. In looking about for a leader, Kirk Luce was hit upon as peculiarly embodying the elements which promised success to their scheme. He was young, and a farmer. He was a state-university graduate, a fine speaker, and though radical in his views, was yet very popular.

It is doubtful, however, whether Kirk would have lent his name to the disgruntled faction in his party had it not been for his love-affair with Edna Kruble. There is nothing so illusive as motives which determine one's action. As Kirk listened to the committee which waited upon him, he reflected that Edna's father would be his opponent on the ticket if he succeeded in defeating Hoyt. Ever since old Kruble had so peremptorily refused him his daughter's hand, young Luce had longed for a situation that would permit him to wrest the girl from her obstinate parent. Was not here the germ of such a situation? His ideas were chaotic, but in the very chaos his eager heart found hope. He told the committee he would think about the matter, which they took as willingness to act, and bade him a pleasant good-afternoon.

The situation certainly had its germ, which, after maturing, horrified Kirk with the idea that he had entertained a thought of selling out his party to old Kruble and obtaining as reward the fair Edna. What else could it mean? He was convinced that the renomination of Hoyt meant the defeat of the unfriendly Kruble. The old man would compass heaven and earth to realize his long-cherished, long-frustrated ambition, and why not give him his daughter?

While Kirk reflected on his moral weakness, the disgruntled faction was at work. Hoyt was defeated, and

the young man's name duly appeared on his party's ticket for legislative honors.

Kirk was broadly conscientious, and moved in the main by splendid ideals. His one vulnerable point was his love for Edna Kruble. However, having recognized the temptation to which he had yielded, subconsciously, at least, he threw himself into the fight with all the energy of his young manhood, determined to win back his self-respect if possible. No one ever doubted that he did his best to beat his opponent. "Compel him to know you," Edna had said; and this he did in a way that for a time spread consternation in the other camp, while, as Kirk sadly thought, it made it more and more impossible for him ever to win the girl. The contest from the start became one of principle and honor with him; and Kirk, a radical, never stopped at half-way measures.

"Good Lord! What does the little fool want to go and put his foot in it like that for?" exclaimed "Billy" Mandie, when he heard the reply his candidate had made to the anti-saloon committee. "The fight was ours. We had them on the run. That speech of his at Annathens was a corker! But now he's kicked it all over. Kruble met the saloon men secretly last night, and they are satisfied. To-day he'll meet this committee of 'aunties,' and I can tell you now what he'll say. He'll point to his long career as a public servant. He'll be sure to refer to the church 'of which I am a humble member. And, friends,' he'll say, 'I've always worked, and always shall work, for the best moral interests of this community.' Kruble is a politician. And what have we? A kid in kilts!"

Dan Karkeau smiled complacently when he heard of the dilemma into which Luce had plunged his party. Dan was at the head of the Republican "machine." "That's what they get for putting up a fellow who is just out of college," he commented, philosophically. "They're always impractical—gushing theories and bubbling ideals. He'd ought to be a Sunday-school worker. But I'm not kicking. We were in a pretty deep hole, and he's helped us out—and jumped in himself. A hole of his own digging, too. Kruble's made himself solid with the whisky vote, and he'll get his share of the 'goody-goodies' in spite of Luce's glowing phrases."

Indeed, the liquor question took the leading part in that campaign. A constitutional amendment prohibiting the traffic was hoped for by the temperance people, and to further the cause the women were everywhere being interested in the movement. Jeremiah Kruble's mother, the bride from Vermont, was still living, a sweet-faced, white-haired woman of more than fourscore years. She knew her son's long-cherished legislative ambition, and rejoiced in the prospect of its speedy fulfilment; but more than all else, she was happy in the thought that Jeremiah would strike that hydra-headed monster, the liquor traffic, a deadly blow.

"Mother is getting too excited over the election," Jeremiah said to his wife one day. "I'm afraid she'll make herself sick. You mustn't let her have so many papers to read. Keep the 'Jeffersonian' out of her sight, at least. It's printing a lot of lies about me. And the 'White Ribboner,' too. I'm afraid that excites her. I ordered the 'Jeffersonian' stopped. I don't see why—"

"The last numbers, I've noticed, were coming to Edna," his wife interjected.

"Edna? It's young Luce's doings! Confound his impudence!" exclaimed Kruble, clenching his fists. "He wants her to read his pretty speeches. He's still after her. But I swear he sha'n't have her. They may write to each other till doomsday, but if he ever darkens my door again—"

"He ain't been here, Jerry, since that one time," the wife again interrupted, wondering at her husband's sudden anger. "I don't believe Edna cares for him as she did," she continued. "I never hear her speak of him now. What worries you so to-day, Jerry? Kirk Luce ain't likely to beat you, is he?"

"Well, not if I know myself," returned her husband, doggedly. "I'm worried about mother, if anything," he declared, as if this was the sole reason of his anger, and not that an undesirable position seemed forced upon him by the attitude of his opponent. "I ought not to have any of the cares here," he continued. "It seems to me I have enough else to bother about. Helen, I wish you'd see that mother doesn't have anything to excite her. I brought home some story-books to-day. Have her read those, and get her mind off other things—papers, politics and such."

A copy of the "Jeffersonian" lay on the stand at his elbow. After a glance at the yellow label, satisfying himself that the paper was really coming to Edna, he crumpled the sheet in his fist, and opening the stove door, cast it upon the flames. The "White Ribboner" lay next, but he had not the heart to burn that. It was his mother's paper, and therefore sacred. But he carried it to a dark corner of his desk, from which he brought the story-books, placing them where the papers had been.

Though Grandma Kruble read the story-books so thoughtfully given her in lieu of the papers which with the same thoughtfulness her son skilfully "mis-laid," still all echoes of the campaign could not be kept from her. Some boys of the neighborhood climbed the fence before the house one day, and shouted, lustily, "Beer bought him! Beer bought him! Whisky-barrel! Whisky-barrel!" And a doubtful young poet among them improvised

"Oh, the city men of liquors
Bought Jerry, soul and whiskers."

"What's that boy saying?" demanded grandma, drawn from the pages of one of E. P. Roe's novels. All she could make of it was some reference to her son in connection with the pending campaign; but her interest was thoroughly reawakened, and now nothing would do but the late-neglected "White Ribboner." Edna, quite ignorant that they had been studiously "mis-laid," hunted them out, and brought a pile, which she deposited near the old lady's chair. She had her reward at once, for on opening the first sheet, grandma cried, "Why, Edna dear, see what a pretty sentiment your Mr. Luce has expressed!" She had this

guileless way of speaking of Kirk when alone with her granddaughter. She had never quite approved of her son's attitude toward the Luce, though she freely admitted they had enough to answer for. If she could be convinced that Kirk was all right, and not at all like his uncle—as Edna insisted he was not—she would rejoice in their union. Her sentiment regarding the old acres was much finer than Jeremiah's. It was the land her husband had cleared and worked during his best days, and gladly would she see it come back into the family if it brought no unhappiness with it.

"Listen!" she commanded Edna, and read in her sweet, low voice from the bold-faced type at the head of the leading column, "'What slavery was to the nineteenth century, the liquor traffic will be to the twentieth; and in the coming struggle I'd rather be a Garrison than a Clay'—Kirk Luce before the anti-saloon committee." Now isn't that fine? There can be no doubt how this district will vote, whether your father or Kirk Luce is elected. But I do wish it had been Jeremiah who said that. It is so noble! But what's this?" Surprise, doubt and pain all came rushing now to cloud her serene brow. In a voice husky with emotion she read from the same bold type, "'Before voting for Jeremiah Kruble, ask him what promises he made the liquor element. It has agreed to support him to a man!'"

Before she had finished, Jeremiah himself entered the room.

"Oh, my son, what does this mean?" she cried, tottering to her feet and holding toward him the fateful record.

"Now, mother, don't excite yourself," began Jeremiah, flushing painfully, for the thing he had so dreaded seemed imminent. He had an active mind, however, and it worked swiftly to save him. "You are well enough acquainted with politics," he began, "to know that all is done that can be done to besmirch a man's character when he's up for office. I hoped you wouldn't see the papers," he continued, sorrowfully; "they are so filled with lies. But now I suppose you'll have to know all." For a moment he was impatient, then he changed his tone to one of injured innocence. It was too bad his mother should doubt him. "Of course you've read, too, how I've foreclosed on the widows' homes. How I—"

But she would not let him go on. "Do you mean Sallie Archer's, Jeremiah? Do they tell such stories?" she asked, ready to snatch anything which promised to give back confidence in her son. "The home remains Sallie's in fact. The property is yours only in name. You have never asked her one penny of rent," she went on, defending him with ardor, "and you've kept up the taxes and put repairs on the house. It's better for her than when she held the title!"

"But your political enemies don't tell that part of your history," returned Jeremiah, glad to lead her away from the one thing which really troubled him. "Has Kirk Luce circulated such stories, then?" groaned the white-haired old lady, and her eyes instinctively passed to Edna as she spoke.

"No, grandma, he hasn't," replied the girl, firmly; and she expected forthwith a storm from her father.

But Jeremiah Kruble surprised them all in his action. "Neither Kirk nor I am to blame for all that our followers put forth," he said, and the words seemed almost a defense of Edna's lover. That they were a salve to Kruble's sorely troubled conscience could not be known. The manly conduct of his opponent had become a constant rebuke. More than one had told him that very day how Kirk had scored his followers in his speech the evening before, stepping from his path to set right the Sallie Archer story. Jeremiah did not repeat this to his family, but he had already done a great deal in those words which linked himself with Kirk. By skilful manœvering he had accomplished his purpose, however, and drawn them from the thin ice that covered his political muddy waters.

Peace of mind, however, was not to be regained thus. Jeremiah never knew when all might be revealed to his sainted mother, whose high opinion he revered despite the fact of having deliberately placed it in jeopardy. Between her and Edna was some secret bond of sympathy, as he realized, and his daughter's perfect poise through this trying period led him to suspect that she knew of his unholy alliance, and merely waited the right moment to use the knowledge to gain her own ends. Having been guilty of craft himself, he was ready to ascribe the same to others—even to his daughter.

But he was capable of finer feeling as well, and when the campaign closed with victory perching on his banner without that outbreak in his home which he had so much feared, he was in a mood for further concession, especially when such concession promised relief to his troubled spirit. Puritan blood dominated in his veins, and where that flows there can be no trespassing upon conscience without paying the full penalty. Jeremiah, it is true, had the satisfaction of receiving his mail from the rural postman with the coveted "Honorable" prefixed, but never in all his life had he felt less honorable than now. As the days went by, the idea that he had sold himself to a discredited traffic came to haunt him more and more. Those fateful pledges he had made remained now to be publicly fulfilled at the capital. How could he hope to blind his mother again, to say nothing of the best element in an alert and respected public? The stand his opponent had taken during the campaign now presented itself as that purity of action which alone can give eternal satisfaction. Kirk Luce must possess this satisfaction in spite of his defeat, thought Jeremiah Kruble; and for once he envied the young man.

To envy a person is to be drawn unconsciously toward that person, and the next time the member-elect passed Kirk Luce on the streets of Annathens he gave him a tentative bow. It was significant, curt as it was, as being the first friendly recognition that had ever passed between them. It might have served as the patronizing nod of the victor to the vanquished, but it was in reality an involuntary tribute paid by an uneasy conscience to recognized virtue.

The incident happened in the lower town, and when Kirk set out for home, he took the first road—the one leading by the Kruble farm. The sleighing was good, and he drove his horse at a brisk pace. He had not noticed the occupant of the cutter which

turned into the road ahead of him, but a moment later he wondered who it could be, for the horse seemed much faster than his own. Indeed, the space between them grew steadily until it had widened from fifty feet to a hundred yards. Then something happened. Kirk was watching his own horse, and did not know just what. The next instant he had overtaken the other, and discovered heavily whiskered Jeremiah Kruble struggling from a snowbank. The road had swerved suddenly to dodge a huge maple, and in making the turn his horse had lost its footing and plunged with tremendous force against the tree.

"Let me help you," said Kirk, springing from his sleigh. "Are you hurt?" he questioned, slipping the traces from the whiffletree that the prostrate animal might rise.

"No," returned Kruble, shortly, but without personal feeling in his tone. He saw what the young man had not—that his horse would never rise again. The shock had broken its neck.

"Good heavens, what a pity!" exclaimed Kirk, when the fact was pointed out to him. "What will you do?" he asked, in a tone of anxiety. Then his senses came to him. "Get in with me, Mr. Kruble, and let me drive you home. We can fasten your cutter back of mine. It will trail all right. I fear you have been more shocked than you recognize now."

Old Kruble murmured something which was hardly intelligible, but he accepted Kirk's offer of assistance.

The day was bitterly cold. If not dazed, Jeremiah was somewhat embarrassed; but he presently found his tongue, and repeated with pointless detail his last thoughts and impressions preceding the accident. Owing to the trailing cutter, they were obliged to drive slow, and both were quite chilled when they reached the Kruble home.

Jeremiah could do no less than ask the young man to come in and warm himself before going on. In giving the invitation he was conscious of two impressions, both of which gave him satisfaction. First, Edna was away from home. Second, she would hear of the matter on her return. Battling with his conscience, as he had of late, the strength of older animosities had been sapped bit by bit. Moreover, if it could be done without open concession, he was ready to yield much to his daughter for sparing him, as he fancied she had, during the recent campaign. He was not ready to hand Edna over to her lover, but he was willing to do a great deal if it would insure him the respect of the better element in his district, of which Kirk had come to be the keystone in his mind. His future course might be the cause of a great moral shock to this element, and instinctively he planned to meet it.

Kirk's presence in the house took second place. Unpleasant personal matters were ignored, and surprise and excitement allowed to gather only about Jeremiah's mishap. But Grandma Kruble really had a warm welcome for the young man, and the two carried on most of the conversation during his short stay.

"I want to tell you—Mr. Luce—" She hesitated when it came to the name. Owing to family connections, he was called "Kirk" in the rare instances when mentioned at all. "I want to tell you how much I enjoyed your noble sentiment during the campaign," she repeated. "It assured me that whoever was elected, our district would be represented by a strong temperance man."

Jeremiah left the little group about the stove, and went to the window, where he stared out across the white fields into the state's legislative-halls. There he saw a man, rising to vote on a question, receive the finger of scorn from all whose opinions he held most dear. It was a reverie kindly broken when Kirk rose presently to go. Kruble followed him through the cold passage to the front door, making some stumbling acknowledgments for the help he had received.

"I shall go to Lansing next week," he said at the last moment. "I have a measure—my good-roads bill. You have perhaps heard of it. I should like your opinion—and assistance—some evening—if you can come here—"

"Thank you, Mr. Kruble. I shall be glad to do so," Kirk hastened to reply, and they made an appointment for New Year's night.

Kirk did not know what had caused the change in the old man's attitude toward him, but it was none the less welcome for that. He recalled his sweetheart's words on that summer night six months ago, and gave her credit for great prescience and insight into character. He wondered if Edna would return from her visit before the night of his engagement. He would write at once, and tell her all that had happened. Never had he felt the Christmas cheer, the good-will toward men, as now.

On the appointed evening Edna met him in the cold, dark passage. Though they scarcely spoke above a whisper, their greeting was warm enough to thaw the icy atmosphere of a much more frigid region. She took his hat and overcoat, and then pushed him toward the library, where her father was waiting.

Kirk has little remembrance of what he said or did that evening. What mattered it to him if Michigan roads were mud and mire six months in the year? His own feet seemed promised a path through azure skies, paved with clouds of purple and gold. However, he bore himself with credit, and kept his mind upon their one subject as well as, or better than, his host. Indeed, Kruble propounded a question at the last that puzzled Kirk not a little at the time, being apropos of nothing so far as he could see. The final word had been said on the good-roads subject, and Kirk had risen to take his leave, but old Kruble kept his chair, apparently deep in thought. The lamp threw its light on his face, making it look paler above his heavy beard than it really was. However, the smoothly shaven lip had drawn the mouth into a straight line that revealed much of the tense workings of the mind within. Without knowing what he did, his steel eraser cruelly marred the desk before him. "Do you believe a bad promise is better broken than kept?" he asked.

"Do I believe—" Kirk repeated after him, in questioning wonder, but the other was too absorbed to note the tone. "Certainly!" he replied, with assurance.

The old man's head nodded in slow, measured assent. The lines of the mouth became even firmer. Then suddenly he burst forth, "Good-night, Luce! Good-night!" and the young man felt himself dis-

missed with short ceremony. But when he met Edna in the hall she amply made up for her father's lack.

Kirk presumed upon the relations thus established to call frequently, and so was present the evening after the news was received of the vote on the liquor bill.

"You expressed more finely the noble sentiment during the campaign," Grandma Kruble said, as she warmly shook the young man's hand, "but my son has cast the vote that was so much needed to make the law. Honors are even between you, and I am very happy to-night."

Kirk prayed that she might never know of the talk going on in the city; of the curses drunk in a score of resorts to the member from that district for his bad faith. "Curse the man! I thought we had him sure," Luce had heard Karkeau declare.

Kirk was very happy, too. He told Edna of the letter he had received from her father—for he had taken advantage of their good-roads discussion to write to him, qualifying certain statements he had made at their New Year's meeting. Jeremiah had replied in a cordial manner, and then gone on to write of other things. He declared, quite needlessly, that he should not again represent their district at Lansing, but he generously expressed a hope that Kirk might seek and win a renomination from his party.

"That was lovely of father!" the girl declared. "Yes," admitted Kirk; "and I believe he would be willing that Representative Kruble's daughter should become Representative Luce's wife."

"Oh, he won't make us wait for that!" she retorted, prettily; and thereby added proof of her prescience, as was subsequently demonstrated.

THE WINNING OF CASSIA

BY FRANK H. SWEET

DEACON WHITE had many customers among the wealthy residents of Savannah, and to-day, as he went from house to house, he was especially jubilant, for trade was good. By the middle of the afternoon he had sold the last chicken and turned his mule's head toward home, his pockets heavy with the silver they had brought. As he turned, a figure which had kept within a block or two of him all through the day, stopping at the same houses with the ostensible object of selling a pair of chickens upon which an impossible value had been placed, turned also, but entered another street, and returned home by a different route.

Late that evening, as Deacon White was sitting upon his front porch, gloating over the profits of the day, he heard a quick, firm step, and looked up to see Micky, a young neighbor, enter the yard.

"Good-evenin', Micky," he called out, hospitably. "Glad you come. I done git mighty tired sellin' all dem chickens; if 'twan't fo' dat I been brung yo' money. Ise done paid Mist' Williams an' Mist' Buckler."

"Dat all right. How dey sell?"

"Mazin' good; done sell ebery one. Here, take dis cheer, an' he'p me count de money. Dar. Now le's see; you gib me two hun'erd—two hun'erd at seven cents make fo'teen dollah; an' ten per cen' off leabes—leabes—er, jes' twelve dollah an' sixty cents. Yes, dat's right. Here's yo' money."

Micky took the money, and slipped it into his pocket.

"How much did Mist' Williams an' Mist' Buckler git?" he asked.

The old man threw up his hands indignantly. "Jes' de same, ob co'se," he snorted. "You ain' s'pose I sell one pusson's chickens fo' one price an' anudder pusson's fo' anudder price, is you? No, sah!" emphatically; "I ain' dat kin' ob man."

Micky drummed upon his knee with his fingers.

"I been in city mahse'f to-day," he announced presently. "You see, I 'lowed on gittin' a book to study, an' I hab two mo' chickens dat's plenty big to sell."

"Yes," observed the Deacon, pleasantly; "an' so you done swap de chickens fo' de book. But what is hit you gwine study, Micky?"

"Dat ain' mattah jes' now. De funny part was dat when I take mah chickens to a house, de folks dey 'low dey jes' buy a dozen pair fo' fifty cents a pair, an' de nex' house dey done buy jes' de same, an' de nex' an' de nex'; an' when bime-by I looks up an' sees you jes' ahead, dat splains hit. I was been tryin' to sell at jes' de same houses you done sell at. But when I t'inks hit ober, I 'lows I better keep right on dataway, fo' you had sperience in sellin'; so I jes' keeps roun' atter you till you done sol' de las' chicken. An' Ise mighty glad dat none ain' fotch less den fifty cents a pair, an' some go high as sixty."

There was a long silence, then a husky "What you gwine do 'bout hit, Micky?"

"Oh, nuffin'," said Micky, placidly. "Ise gwine be yo' son-in-law, an' I ain' car' to hab disputation' in de fambly. Now, don' you git mad," as the Deacon rose stormily to his feet. "Ise jes' fixin' t'ings de bes' way fo' you. S'pose I go tell Mist' Williams an' Mist' Buckler, an' some ob dem tudder folks you done tradin' long ob? Ain' you see dar gwine be tar an' fedders an' a rail, an' mos' likely somebody be run out ob de town, an' den I hab to marry Cassia anyway, jes' to keep her from feelin' bad. Ain' you see all dat?"

The Deacon sank heavily into his seat. "You been mighty smart," he sneered. "Now what you gwine make me do?"

"I ain' gwine make you do nuffin', Deacon. Ise jes' visin'. If Ise you, I'd go an' fix t'ings wid Mist' Williams an' Mist' Buckler—you needn' tell eberyt'ing, but see dey all gits dere money. Den tell Cassia she bes' marry dat nice young man, Micky, who's de git-aheadedes' man roun', an' who gwine be de fines' kin' ob gen'leman," grinning affably. "An' long ob de res' I reckon I'd pay him what you owe him on de chickens, an' on de taters you sol' las' week. He gwine need hit now to fix up fo' de weddin'. An'—an' I 'low dat's all. Now, what you t'ink?"

The Deacon's only answer was an explosive snort, which could not be formed into words. But he drew out a roll of bills, part of which he counted, and gave to Micky. The young man rose to his feet.

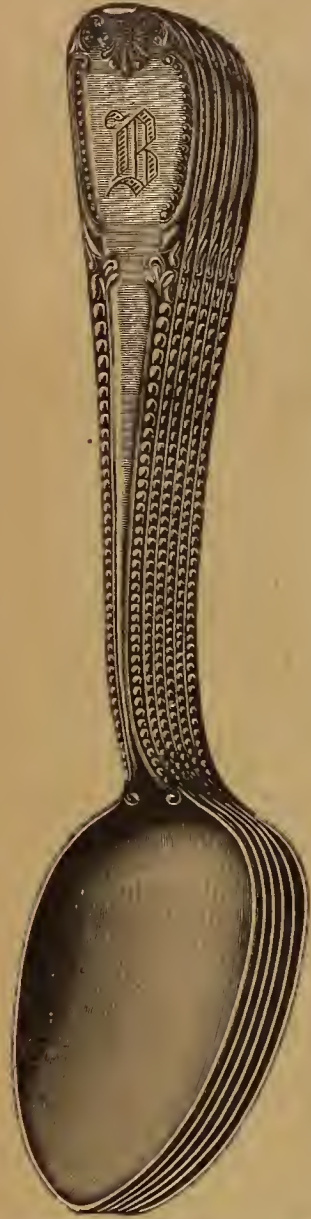
"Tank you, Deacon," he said. "We gwine be mighty good frien's, I see. Now I reckon I better go roun' an' fin' Cassia, an' make up 'bout de weddin'."

6 Silver-Plated Teaspoons

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Or, Given FREE for THREE yearly subscriptions to the Farm and Fireside at 35 cents each



Set No. 60—Cut shows the ACTUAL SIZE

Nickel-Silver Base The base of this ware is solid nickel-silver, which is white all the way through, positively will not change color nor rust, and will wear for a lifetime. It is the highest grade known, being full twenty-five-per-cent nickel.

Coin-Silver Plate On top of this nickel-silver base is plated the full STANDARD amount of pure coin-silver. This combination makes a ware which we guarantee to give satisfaction. Test it, and if not found exactly as described, return it to us and we will refund the money.

Initial Letter Each spoon is engraved free of charge with an initial letter in Old English. Only one letter on a piece. Be sure to name the initial desired.

Pattern We have the spoons in two beautiful patterns, No. 60 and No. 14. You can make your choice of pattern. Where no choice is named we will fill orders with our selection. We also reserve the privilege of substituting one pattern for the other if the supply in any particular initial is exhausted. We can thus fill all orders the same day they reach us. It is impossible to describe the beauty of these spoons, and the illustration falls far short of conveying a full idea of their attractiveness. In finish they are perfect, and will render complete satisfaction.

GUARANTEE

We absolutely guarantee every piece of this ware to be exactly as it is described and to give entire satisfaction or your money will be cheerfully refunded. We are sure it will please you.

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Residents of Springfield, Ohio, are not allowed to enter the contests.



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Here are Six Pictures, Each Representing a Geometrical Figure. Can You Guess Them?

We Offer Eight Dollars Cash in Four Prizes, as follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State their Ages, and Answers Must be Received Before September 1st.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a copy of "Gems from the Poets" will be given for the first correct list of answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, one for the District of Columbia, also one for Canada. The first correct list from each state wins a prize, giving an

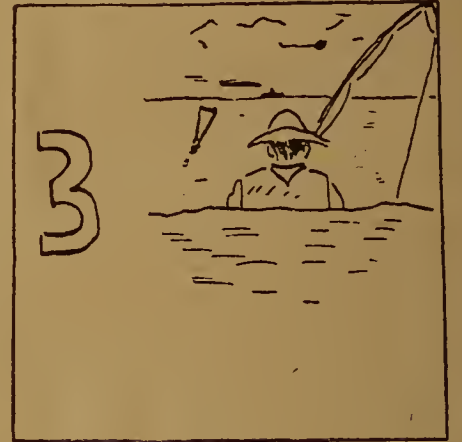
equal opportunity to all our readers wherever they may be located. In the states where the cash prizes are awarded the prize book will be given to the person sending the second correct list, so that in no case will any one person receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



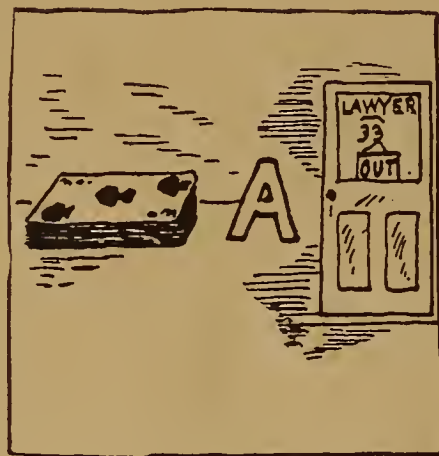
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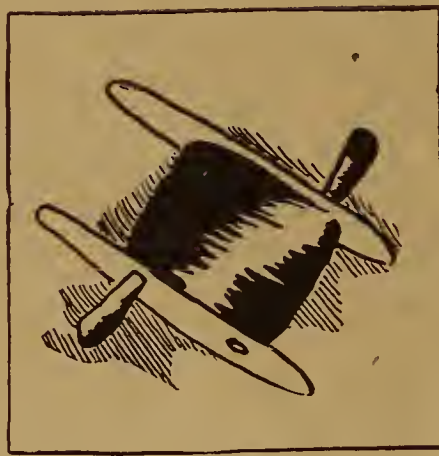
TWO



THREE



FOUR



FIVE



SIX

ANSWERS TO PUZZLES OF JULY 15th ISSUE

The Six Popular Magazines

- | | |
|------------------|-----------------|
| 1—Sporting Life. | 4—Arena. |
| 2—St. Nicholas. | 5—Harper's. |
| 3—Judge. | 6—Lippincott's. |

The cash prizes are awarded as follows:

- Man's prize, two dollars—K. Rittenhouse, State Road, Delaware
- Woman's prize, two dollars—Mrs. E. A. White, Montgomery, Alabama.
- Girl's prize, two dollars—Minnie L. Barry, Toronto, Canada.
- Boy's prize, two dollars—Johnnie S. Vestal, Waldo, Arkansas.

A consolation prize, "Picturesque Philippines," is awarded the following persons for sending in the first correct list of answers from their respective states:

- Alabama—Mrs. R. W. Parham, Shoalford.
- Arizona—Mrs. Fred. R. Birdsall, Ash Fork.
- Canada—Henry Hunwick, Byron, Ontario.
- Colorado—Freda Huntley, Flagler.
- Connecticut—Mrs. G. A. Hitchcock, Cheshire.
- Delaware—Mrs. Wm. G. Barto, Warwick.
- District of Columbia—J. S. Swan, Washington.
- Florida—Mrs. Arthur M. Pellett, Daytona.
- Georgia—Mrs. R. A. Hardaway, Warrenton.
- Illinois—Annabel Gallear, Chicago.
- Indiana—Elmira Case, Marion.
- Iowa—Mrs. R. H. Lowe, Baldwin.
- Kansas—Myrtle Leonhard, Severance.
- Kentucky—Eloise McElroy, Cynthiaana.
- Kentucky—Mrs. R. K. Bethel, Elizabethtown (omitted from list of precious stones by mistake).
- Louisiana—Mrs. F. C. Salleau, New Orleans.
- Maine—Hollis E. Rowe, Amherst.
- Maryland—John E. Beck, Rock Hall.
- Massachusetts—George H. Hammond, Natick.
- Michigan—B. L. Taylor, Charlotte.
- Minnesota—Harriet E. Olive, Lesueur.
- Mississippi—S. K. Moore, Carrollton.
- Missouri—Mrs. John Israel, Chillicothe.
- Montana—Dixie Ingersoll, Miles City.
- Nebraska—Mrs. C. S. Eisenbise, Virginia.
- New Hampshire—Beatrice Tasker, Manchester.
- New Jersey—J. T. Hoffman, Elizabeth.
- New York—E. J. Crane, Oswego.
- North Carolina—J. E. Rue, Littleton.
- North Dakota—Alson Brubaker, Fargo.
- Ohio—Donald G. Mitchell, Zanesville.
- Oklahoma—Mrs. Mary E. Tunnell, Dover.
- Pennsylvania—Osborne T. Fouché, Erie.
- Rhode Island—Albertine Donon, Block Island.

- South Carolina—Mrs. J. M. Browne, Denver.
- Tennessee—Lora E. Bishop, Powell Station.
- Texas—Roy M. Clark, Amarillo.
- Vermont—Mrs. M. C. Bedell, Newport.
- Washington—Mrs. A. L. C. Buckwalter, Davenport.
- Wisconsin—J. R. Fitzgerald, Ironton.

CURIOS AND QUEER

In the Middle Ages rings blessed by the king were worn as a charm against cramp. Possibly some one in the twentieth century, smiling as he reads this item, has a hare's foot snugly hid away "for luck."

In the ancient countries special laws were enacted to regulate the exportation of figs, and from the contemptuous epithet flung at informers against those who evaded these laws comes our word "sycophant."

The oldest tree in the world is said to be a great bo, growing in Anarajapoor, Ceylon. Gautama Buddha was in deep meditation under a bo-tree when he became endowed with his divine powers. The tree in Ceylon is said to be a branch from this tree, hence comes its name, "The Sacred Fig," or "Ficus religiosa."

Smallpox is an ancient enemy of the race, and unnumbered hosts of men have spent their lives in a study of its deadly power. Rhazes, a Persian, was one of the first Arabs to treat the subject of medicine in a comprehensive way. It was he who first described smallpox accurately. He lived in the tenth century after Christ.

We think we are very wise in this generation, yet it is less than three hundred years since one Richard Verstegan wrote in all good faith the following explanation of the fabled werwolf: "The werewolves are certayne sorcerers, who having annoynted their bodies with an oyntment which they make by the instinct of the devill, and putting on a certayne enchanted girdle, doe not onely unto the view of others seeme as wolves, but to their own thinking have both the shape and nature of wolves so long as they wear the said girdle. And they do dispose themselves as very wolves, in wourrying and killing, and most of humane creatures." The French form of the werwolf was the "loup-garou."

Now and then when reading fiction we note the mention of poison-rings. Their history is interesting. They were used in classical times. The "anello della morte," a Venetian invention, was used as an instrument of murder. A jewel in a ring was held in place by a gold rim, called a bezel. Sometimes this

bezel was most elaborate in design, and concealed a spring which communicated with a receptacle containing poison. In the simple act of shaking hands a fatal scratch could be given. Hannibal killed himself by such a ring, and Pliny records that after Crassus had stolen the gold treasure from under the throne of Capitoline, Jupiter, the guardian of the shrine, in despair used his poison-ring effectively against himself.

Students of English law are familiar with the "deodand." In 1846 the law concerning deodands became null and void, but an interest still attaches to the old custom. The deodand, we are told, was "a personal chattel (any animal or thing), which on account of its having caused the death of a human being was forfeited to God—that is to say, his representative, the king—for pious uses. This is an odd recognition of the 'total depravity of inanimate things. Some curious legal decisions grew out of this odd law. If death was caused by a fall from a cart or horse at rest, the chattel became deodand only if the victim was an adult! If a man came to his death by a vessel at rest, the cargo was not deodand; if the vessel was sailing, hull and cargo both were forfeited. Perhaps a similar law would not be unwholesome in these days of accidents on palace cars, steamboats, automobiles and balloons. A. M. S.

THE TREASURE-TROVE

An Irishman and a Scotchman, digging together in a field, came upon a number of gold coins. When they were about to divide them, the Scotchman, who was of an avaricious turn, conceived a plan to outwit the Irishman and secure the whole for himself. He therefore proposed to the Irishman that if, without asking any question, he could name the exact number of coins he should take the whole; if he failed, the other should take all. The Irishman readily agreed, and counted the money, taking special care that the Scotchman should not see how much it was. "Now add 666 to it," said the Scotchman. "Done," replied the Irishman. "Now, ye'll maybe subtract the whole amount from 999," replied the Irishman; "but the divil a bit are ye nearer!" "Bide a wee," said the Scotchman. "Now jist pit down 333, and tak' awa' the last figures from it, and ye'll no be far off the tottle of the bit money." "Mother o' Moses!" exclaimed the Irishman, "somebody must have tould ye;" and the Scotchman walked off with the treasure-trove accordingly. How did the Scotchman get at the right total?

Wit and Humor

HIS CHOICE

It is told of the late Senator Matt Carpenter that one day while chatting with friends in a committee-room the conversation turned on the relative merits of religious sects. Nearly every member of the party belonged to some church, and there had been an animated discussion, Senator Carpenter pacing up and down, listening intently enough, but saying not a word.

"What church do you belong to, Carpenter?" asked one.

"I don't belong to any."

"Why don't you join one?"

"I don't want to. None exactly suits my views."

"What one would you join if you were to feel forced to a choice?"

"The Catholic, by all means."

"And why the Catholic?"

"Because they have a purgatory, and that's a motion for a new trial."—The Omaha Bee.

THE BRIDEGROOM EXPLAINED

During the night the ship on which the bridal couple were taking their honeymoon trip entered a thick bank of fog near shore. When the bridal couple came on deck, the vessel was proceeding at a snail's pace, and from the gloom ahead reverberated the hoarse warning of the fog-horn.

"Why don't they make the boat go faster, dearie?" asked the bride, looking into her husband's face with eyes which showed that she realized the fact that all human knowledge was centered in his head.

"Why, my angel, don't you hear that automobile tooting just ahead of us? You don't suppose the captain wants to be run over, do you?"—Judge.

CHANCE TO ENJOY THEMSELVES

William's table-manners were notoriously bad—so bad that he was facetiously accused of spoiling the manners of a pet coon chained in the back yard. He gripped his fork as though afraid it was going to get away from him, and he used it like a hay-fork. Reproaches and entreaties were in vain. His big sister's pleading, "Please, William, don't eat like a pig," made no impression upon him.

One day William and his bosom friend, a small neighbor, dined alone, and William was heard to say, in a tone of great

TRUE

"Most o' these here advertisements is jest lies," gravely observed Silas Perkins, as he laid the city paper down on the box of crackers.

"Oh, I dunno," commented Mr. Meddergrass, reflectively, helping himself to a prune. "I dunno. Last fall I bought a



"We collected a hunderd dollahs at our church las' Sunday fo' the heathen."
"Dat's jes' mah luck. I done got converted two weeks ago."

hat from a feller in the city that had a advertisement in the paper that said the hats wouldn't last long, an' to come early ef we'd take advantage o' his marvelous offer."

Here Mr. Meddergrass meditatively chewed the prune, until Mr. Perkins broke the silence with "Well?"

"Well, it didn't last long, that's all."—What-to-eat.

USED TO IT

Visitor—"So you were shipwrecked, and came near starving?"

Mariner—"Yes, mum; an' I had ter eat a whisk-broom, an' the sawdust out o' a cushion."

Visitor—"It must have been a terrible thing to have to eat such stuff."

pression crossed his face, scratched his head. "Faith," he was heard to mutter, "Oi don't know in which wan to put th' letther. Shure, Katie's a domeshtic, an' she lives in th' city all right, an' she's a furriner, too; but begobs, Oi don't know how th' thing can go in both iv th' three holes at wance."—Columbia Jester.

DIFFERENT

Finally, when he could endure the suspense no longer, the young man accosted the old man.

"I smoke three cigars a day."

"Ah?" said the old man.

"Each costing ten cents straight."

"Indeed?"

"And were I to save the money I spend for cigars I might own yonder lofty building at your age."

"Well?"

It was with a heavy heart that the young man turned away. The world of fact was a selfish world, minding its own business; not at all the world of which he had read.—Detroit Free Press.

ENGLISH AS SHE IS DEFINED

The tedium of an English teacher's work is not infrequently relieved by the unconscious humor of her pupils. The following are definitions culled by the English department of a school not far from Boston.

The word buttress occurs in the lesson, and the teacher, upon asking a definition, receives this response: "A buttress is a woman who makes butter."

Even more choice than this is the idea a little girl has of a ruminating animal. She gravely writes, "A ruminating animal is one that chews its cubs."—A. A. H., in Harper's Monthly.

NOT TROUBLED

"Are you troubled with cockroaches or other insects about your premises, madam?" inquired the man with the pack, who had succeeded in gaining an audience with the mistress of the mansion.

"No, sir!" she said, glaring at him; "we are NOT troubled by cockroaches or other insects!"

"Don't mind them, eh?" he rejoined, cheerfully, shouldering his pack again. "Well, there's nothing like getting used to one's afflictions. Good-day, madam."—Chicago Tribune.

ON A DIFFERENT SCALE

One day, when little Elsie came home from school, her mother asked her what she had learned that day.

Elsie replied, "I learned to spell man."

"Tell me how you spell it, dear," said mama.

"M-a-n, man," replied Elsie.

"And how do you spell boy?"

"You spell it the same way, only with smaller letters," replied Elsie, after a moment's thought.—The Little Chronicle.

CYNICAL WIT

Silence gives contempt.

People who love in glass houses should pull down the blinds.

A church-fair exchange is robbery.

A bird on a bonnet is worth ten on a plate.

Some are born widows, some achieve widowhood, while others have widows thrust upon them.—The Cynic's Calendar of Revised Wisdom.



REALIZED HIS POSITION

Mr. Soulsave—"Don't you know you oughtn't to be fishing here on the Sabbath?"

Johnny—"I know it. I'm a dern fool. They ain't bitin'."

satisfaction, as he planted both elbows on the table, "Say, Harry, they's nobody here but us. Let's eat like hogs, and enjoy ourselves."—Caroline Lockhart, in Lipincott's.

COMPULSORY TEMPERANCE

Casey—"Kelly hasn't th' price iv a dhrink."

Costigan—"How do yez know that?"

Casey—"He ain't dhrinkin'."—Judge.

Mariner—"Not so bad, mum. Yer see, I had been used ter eatin' health-foods."—Chicago News.

PUZZLED

The other day a little red-faced Irishman approached a post-office which had three letter-boxes outside. One was labeled "City," another "Domestic," and the third "Foreign." He looked at the three in turn, and then, as a puzzled ex-

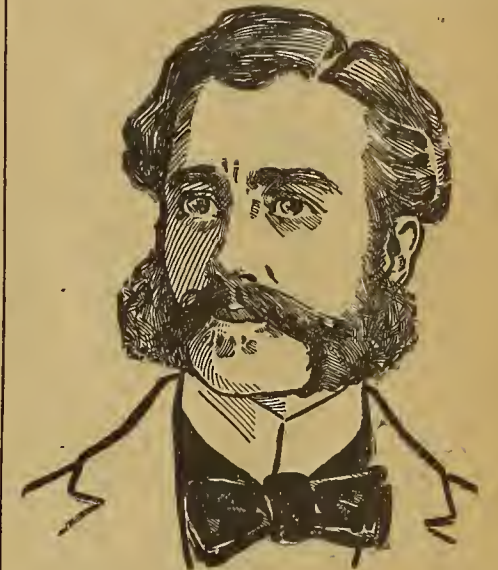
Sick Made Well Weak Made Strong

Marvelous Elixir of Life Discovered by Famous Doctor-Scientist that Cures Every Known Ailment

Wonderful Cures Are Effected That Seem Like Miracles Performed—The Secret of Long Life of Olden Times Revived

The Remedy is Free to All Who Send Name and Address

After years of patient study and delving into the dusty record of the past, as well as following modern experiments in the realms of medical science, Dr. James William Kidd, 122 Baltes Building, Fort Wayne, Indiana, makes the startling announcement that he has surely discovered the elixir of life. That he is able with the aid of a mysterious compound, known only to



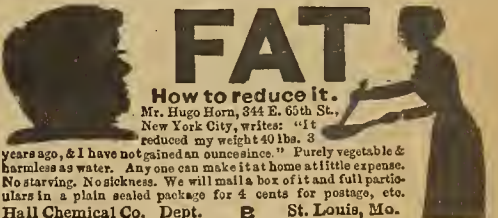
DR. JAMES WILLIAM KIDD

himself, produced as a result of the years he has spent in searching for this precious life-giving boon, to cure any and every disease that is known to the human body. There is no doubt of the doctor's earnestness in making his claim, and the remarkable cures that he is daily effecting seem to bear him out very strongly. His theory which he advances is one of reason and based on sound experience in a medical practice of many years. It costs nothing to try his remarkable "Elixir of Life," as he calls it, for he sends it free to any one who is a sufferer, in sufficient quantities to convince of its ability to cure, so there is absolutely no risk to run. Some of the cures cited are very remarkable, and but for reliable witnesses would hardly be credited. The lame have thrown away crutches and walked about after two or three trials of the remedy. The sick, given up by home doctors, have been restored to their families and friends in perfect health. Rheumatism, neuralgia, stomach, heart, liver, kidney, blood and skin diseases and bladder troubles disappear as by magic. Headaches, backaches, nervousness, fevers, consumption, coughs, colds, asthma, catarrh, bronchitis and all affections of the throat, lungs or any vital organs are easily overcome in a space of time that is simply marvelous.

Partial paralysis, locomotor ataxia, dropsy, gout, scrofula and piles are quickly and permanently removed. It purifies the entire system, blood and tissues, restores normal nerve power, circulation, and a state of perfect health is produced at once. To the doctor all systems are alike and equally affected by this great "Elixir of Life." Send for the remedy to-day. It is free to every sufferer. State what you want to be cured of, and the sure remedy for it will be sent you free by return mail.

GRAY HAIR RESTORED

"WALNUTTA" HAIR STAIN is prepared from the juice of the Philippine Islands walnut, and restores Gray, Streaked, Faded or Bleached Hair, Eyebrows, Beard or Moustache to its original color, Instantaneously. Gives any shade from Light Brown to Black. Does not wash off or rub off. Contains no poisons, and is not sticky or greasy. "Walnutta" Hair Stain will give more satisfactory results in one minute than all the hair restorers and hair dyes will in a lifetime. Price 60 cents a bottle, postpaid. To convince you of its merits we will send a sample bottle postpaid for 20c. PACIFIC TRADING CO., Dist. Office 22, St. Louis, Mo.



Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it and full particulars in a plain sealed package for 4 cents for postage, etc. Hall Chemical Co. Dept. B St. Louis, Mo.

Hay Fever and Asthma

cured to stay cured. Never return. A radical departure. Cause eliminated. Constitution changed. Nerves reconstructed. Splendid health. Over 52,000 patients. Good references. ("Reliefs," or change of climate, cannot cure.) Write for BOOK 58¢ FREE containing reports of many interesting cases. Address DR. HAYES, BUFFALO, N. Y.

BED-WETTING CURED. Sample FREE.

Dr. F. E. May, Bloomington, Ill.

If afflicted with weak eyes, use Thompson's Eye Water

FARM AND FIRESIDE GIVES FIVE THOUSAND DOLLARS

to 225 subscribers in cash prizes aggregating an exact total of five thousand and nine dollars for the nearest correct estimates in the

IMMIGRATION CONTEST

As previously advertised, the publishers of FARM AND FIRESIDE announce the result of the great Five Thousand Dollar Immigration Contest, and give the names and addresses of the successful contestants. They take this opportunity of extending congratulations to the fortunate subscribers, and sincerely thank all for the interest shown, and will, during the coming year, make FARM AND FIRESIDE greater and better in every way than ever before, and make it of extraordinary value, benefit and interest to every one interested in agriculture and to every member of the family.



JESSE BLACKBURN, Normal, Illinois, whose estimate, 857,043, was the nearest, and wins first prize, Twenty-five Hundred Dollars in Cash

857,046 IS THE EXACT NUMBER

of Immigrants arriving in the United States during the fiscal year ending June 30, 1903, as given by the United States Government reports.

NO ONE ESTIMATED THE EXACT NUMBER

The educational contest on immigration inaugurated by FARM AND FIRESIDE for the benefit of its readers was one of absorbing interest and national importance. The contest closed June 25, 1903. The vast multitude of FARM AND FIRESIDE readers will appreciate the efforts of the publishers of this paper in making this contest the fairest and most satisfactory of anything of its kind ever attempted by any first-class publishing-house. The utmost care has been exercised in the conduct of this contest in order that absolute fairness would be given to all.

The result of this contest is based upon the official report of the Commissioner-General, Department of Commerce and Labor, Bureau of Immigration, Washington, D. C., who notifies us that the exact number of "immigrants" arriving in the United States during the fiscal year (July 1, 1902, to June 30, 1903 inclusive) was

857,046

Numerous statements in round numbers, which were not absolutely correct, have been made by the press throughout the country. The number (857,046) means "actual immigrants," people who come to this country to make it their home, and does not include "alien tourists" (visitors to this country) or "aliens in transit" or "aliens debarred." The same conditions that give 857,046 "immigrants" for this year, gave 648,743 for 1902 and 487,918 for 1901. These latter figures were given as a basis of calculation in the columns of FARM AND FIRESIDE during the contest, and the term "immigrants," as used, can convey no other meaning.

The distribution of the \$5,000.00 in cash is made in accordance with the above-named figures and conditions printed on this and the opposite page. We herewith give the names of those who are entitled to share in the distribution of the Five Thousand Dollars in cash.




MRS. E. N. NORRIS, Valparaiso, Indiana, whose estimate, 857,050, was the second nearest, and wins second prize, One Thousand Dollars in Cash

NOTE—Five Hundred Dollars was offered as an extra prize if the estimate which secured the first prize was made previous to the month of June; but as the estimate which secured first prize was made in June, no one is entitled to the extra \$500.00.

The picture of the building printed on the corner of the check below is the magnificent and beautiful home of FARM AND FIRESIDE, the "Monarch of the Rural Press." This building as shown here was erected more than twenty-two years ago, but recently, on account of the increase in business, a large addition has been made, which is not shown. This magnificent building was built, and is owned and occupied exclusively by The Crowell Publishing Company, publishers of FARM AND FIRESIDE, and is one of the largest and best-equipped publishing plants in the United States.

This is A FACSIMILE OF OUR CHECK FOR TWENTY-FIVE HUNDRED DOLLARS Sent to Jesse Blackburn, Normal, Illinois



The Crowell Publishing Company

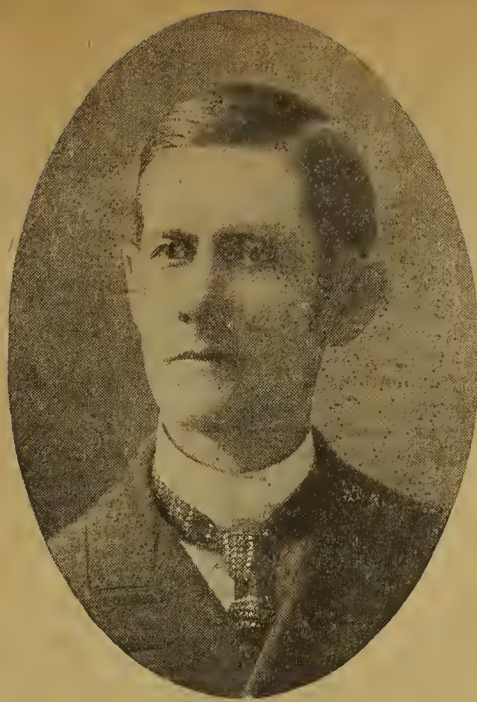
PUBLISHERS

No. 23831 Springfield, O. July 29th 1903

Pay to the order of Jesse Blackburn, Normal, Ill

\$2,500.⁰⁰ Twenty five hundred and ⁰⁰/₁₀₀ Dollars

To Lagonda National Bank, } The Crowell Publishing Company
Springfield, Ohio. } R. A. Worthington Treas.



CLARENCE D. SKINNER, Topeka, Kansas, whose estimate, 857,040, was the third nearest, and wins third prize, Five Hundred Dollars in Cash

These are the conditions as advertised in the Farm and Fireside during the contest:

- To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903 \$2,500.00
- To the second nearest..... 1,000.00
- To the third nearest..... 500.00
- To the fourth nearest..... 250.00
- To the fifth nearest..... 100.00
- To the sixth nearest..... 50.00
- To the next four nearest, \$25.00 each..... 100.00
- To the next five nearest, \$10.00 each..... 50.00
- To the next ten nearest, \$5.00 each..... 50.00
- To the next 200 nearest, \$2.00 each..... 400.00
- In all 225 Cash Prizes, aggregating..... \$5,000.00

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

(No one connected with our establishment, either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)



O. S. EVANS, Roxbury, Ohio, whose estimate, 857,060, was the fifth nearest, and wins fifth prize, One Hundred Dollars in Cash

THIS IS A COMPLETE LIST OF EACH AND EVERY PRIZE-WINNER

ESTIMATE	
FIRST PRIZE—\$2,500.00	
Jesse Blackburn, Normal, Ill.....	857,043
SECOND PRIZE—\$1,000.00	
Mrs. E. N. Norris, Valparaiso, Ind....	857,050
THIRD PRIZE—\$500.00	
Clarence D. Skinner, Topeka, Kan....	857,040
FOURTH PRIZE—\$250.00	
Equally divided between two	
R. T. Russell, Fort Payne, Ala.....	857,053
T. P. Quarels, Abbeville, S. C.....	857,053
FIFTH PRIZE—\$100.00	
O. S. Evans, Roxbury, O.....	857,060
SIXTH PRIZE—\$50.00	
J. W. Hill, Griffin, Ga.....	857,062
FOUR PRIZES—\$25.00 Each	
1 A. T. Miner, Chicago, Ill.....	857,029
2 C. W. Bigler, Auburn, Ill.....	857,063
3 T. B. Black, Kenton, O.....	857,064
4 Louis Kleimyer, Cincinnati, O.....	857,069
FIVE PRIZES—\$10.00 Each	
1 W. M. Jenkins, Charleston, Ill.....	857,071
2 T. B. Black, Kenton, O.....	857,019
3 T. B. Black, Kenton, O.....	857,019
4 J. C. Miller, Waelder, Tex.....	857,074
5 C. A. Vestal, Elwood, Ind.....	857,017
ELEVEN PRIZES—\$5.00 Each	
1 Eva A. Cleveland, Manchester, Ia.....	857,013
2 J. C. Goodwin, Akron, O.....	857,012
3 I. C. Roach, Hillsboro Bridge, N.H.....	857,011
4 A. E. Rhodes, Coldbrook, N. Y.....	857,009
5 J. W. Hanway, Alexandria, O.....	857,083
6 J. W. Hanway, Alexandria, O.....	857,084
7 J. M. Sanders, Dalton, Ga.....	857,007
8 C. O. Mallory, Rebersburg, Pa.....	857,007
9 D. M. Merrylees, Wayne, Mich.....	857,085
10 C. F. Clyde, Meadville, Pa.....	857,006
11 G. D. Hall, Harper, Pa.....	857,086
TWO HUNDRED PRIZES—\$2.00 Each	
1 B. W. Justice, Waverly, Va.....	857,093
2 W. E. Bailey, Harmony Grove, Ga.....	856,994
3 Jas. Fleming, Summerville, Ont.....	857,100
4 Mrs. E. J. Blake, Turnersfalls, Mass.....	857,000
5 Allie Conley, Sailor Springs, Ill.....	857,001
6 Mrs. Effie L. Kemp, Harnedsville, Pa.....	857,001
7 Wm. Stertzach, Portsmouth, Va.....	857,101
8 W. S. Atherton, Madison, Ind.....	857,101
9 Chas. Barrett, Saratoga, N. Y.....	857,101
10 W. S. Atherton, Madison, Ind.....	857,102
11 J. E. Danbury, Walker, Ill.....	857,104
12 Fred Hatzler, Lebanon, O.....	856,988
13 Wesley Zwickel, Santa Claus, Ind.....	856,987
14 D. O. Galliar, Chicago, Ill.....	857,105
15 D. H. Welch, Hopedale, O.....	856,987
16 P. C. Robinson, Princetown, O.....	856,985
17 J. E. Cravens, Mora, Minn.....	857,108
18 H. R. Keagy, Epworth, Iowa.....	857,109
19 T. D. Harris, Brooklyn, N. Y.....	856,983

ESTIMATE	
20 Mrs. J. F. McArthur, Unadilla, Ga.....	856,979
21 C. W. Nick, Erie, Pa.....	857,114
22 Mrs. S. R. Jones, Coldwater, Mich.....	856,978
23 Frank Carroll, Leavenworth, Kan.....	856,977
24 J. E. Ervine, Staunton, Va.....	856,976
25 J. M. Stallings, Enoree, S. C.....	857,117
26 Nellie D. Watson, Ewing, Neb.....	857,118
27 T. W. Bailey, Slaughterville, Ky.....	857,119
28 Kirby Steele, Bartlett, O.....	856,973
29 Mrs. Clara Hodges, Delaware, O.....	856,973
30 W. J. Sullivan, Pearl River, La.....	856,973
31 T. B. Black, Kenton, O.....	856,972
32 J. L. Klingaman, Woodstock, Wis.....	857,120
33 Virgil Bibler, Dupont, O.....	856,971
34 A. I. Crumley, Lithopolis, O.....	857,121
35 C. F. James, Ortonville, Minn.....	857,123
36 Eva A. Cleveland, Manchester, Ia.....	857,124
37 E. Wallace, Mount Carmel, Tex.....	857,125
38 J. N. Hawkins, Altoona, Iowa.....	857,125
39 J. S. Lassiter, Bellbuckle, Tenn.....	857,125
40 Mrs. A. M. Holmes, Council Bluffs, Ia.....	857,125
41 Harry Rhodes, Dressersville, N. Y.....	857,126
42 W. A. Weaver, New Lebanon, O.....	857,126
43 J. B. Jones, Montpelier, O.....	857,126
44 Walter Boeton, Milner, Ga.....	856,965
45 J. N. Hawkins, Altoona, Ia.....	857,127
46 J. N. Hawkins, Altoona, Ia.....	857,128
47 C. H. Bohrer, Jonesboro, Ark.....	857,129
48 J. N. Hawkins, Altoona, Ia.....	857,129
49 Kirby Steele, Bartlett, O.....	856,963
50 G. I. Johnson, Lindsey, O.....	856,963
51 W. H. Rice, Dallas, Pa.....	856,963
52 P. J. Gormley, Lexington, Ky.....	856,963
53 I. C. Roach, Hillsboro Bridge, N.H.....	856,961
54 Mrs. Edw. Walden, Scipio, Mich.....	857,131
55 Charlie Kirkham, Newton, Ill.....	856,960
56 R. H. Rodes, Gatewood, W. Va.....	856,957
57 S. P. Wallace, Akron, O.....	857,137
58 T. B. Black, Kenton, O.....	857,139
59 Jno. Bittner, Clifton, O.....	856,952
60 T. C. Lauber, Byron, Neb.....	856,950
61 G. F. Pearce, Germantown, O.....	857,144
62 Mrs. Dan'l Conrad, Alliance, Mo.....	856,947
63 A. W. Warner, Baldwinville, N. Y.....	856,946
64 T. B. Black, Kenton, O.....	857,146
65 Sol Rimer, Salesville, O.....	857,146
66 Theodore Schalch, Cincinnati, O.....	857,146
67 C. Fitzwater, Mathias, W. Va.....	857,147
68 G. E. Weeks, Poulam, Ga.....	856,944
69 Mrs. A. Barnd, Manchester, Ia.....	856,944
70 Mrs. Adelaide H. Lambertson, Torrington, Conn.....	856,943
71 A. W. Warner, Baldwinville, N. Y.....	857,149
72 Mrs. Hannah Sieglinger, Goldburg, Okla.....	856,941
73 G. W. Campbell, Waterloo, Pa.....	856,939
74 J. C. Miller, Waelder, Tex.....	856,938
75 H. J. Webster, Bell, O.....	857,154
76 Willie Boyd, Chriesman, Tex.....	856,937
77 T. B. Black, Kenton, O.....	856,936
78 E. M. May, Mount Zion, Ill.....	857,162
79 L. T. Crosby, Jr., Burnett, Okla.....	857,163

ESTIMATE	
80 J. DeArmon, Parsons, Kan.....	856,929
81 D. T. Bush, Ironton, O.....	857,164
82 H. L. Brown, Muscotah, Kan.....	857,167
83 A. G. Burr, Clinton, Ia.....	857,167
84 G. N. Keeling, Bellbuckle, Tenn.....	856,925
85 D. D. Williamson, Bellefontaine, O.....	856,923
86 L. J. Foerster, Johnstown, Pa.....	857,169
87 A. Howard, Roundrock, Tex.....	856,920
88 G. H. Boetcher, Cambridge, O.....	856,919
89 E. M. Barber, Fayetteville, N. Y.....	856,918
90 C. C. Smith, Winslow, Ill.....	856,917
91 Mrs. Carrie B. Clark, Cheshire, O.....	857,177
92 Mrs. Carrie B. Clark, Cheshire, O.....	857,178
93 J. H. Vantine, Elberton, Wash.....	856,914
94 B. B. Patterson, Siboney, Okla.....	856,912
95 J. G. Moore, Tallahassee, Fla.....	857,179
96 C. N. Moore, Axline, O.....	857,182
97 T. B. Black, Kenton, O.....	857,187
98 L. A. Page, Nadine, Mo.....	856,902
99 C. H. Lamkin, Independence, Mo.....	857,193
100 I. C. Roach, Hillsboro Bridge, N.H.....	857,196
101 F. B. Larue, Parrottsville, Tenn.....	856,895
102 M. M. Fenton, Bath, N. Y.....	856,892
103 I. C. Roach, Hillsboro Bridge, N.H.....	857,200
104 F. G. Hobbs, Charles River, Mass.....	857,201
105 T. B. Black, Kenton, O.....	856,890
106 Jacob Johnson, Union City, Ind.....	856,890
107 Kirby Steele, Bartlett, O.....	857,203
108 R. A. Hunt, Kettle, W. Va.....	857,208
109 Fred Lindsey, Factoryville, Pa.....	857,211
110 Jacob Johnson, Union City, Ind.....	857,212
111 T. P. Quarels, Abbeville, S. C.....	857,212
112 C. W. Nick, Erie, Pa.....	856,881
113 David Dunn, Lonaconing, Md.....	857,215
114 J. L. Jones, Brookings, S. D.....	857,218
115 C. C. Smith, Winslow, Ill.....	857,219
116 D. M. Landreth, Palisade, Cal.....	857,219
117 R. F. Harper, Butler, Mo.....	856,873
118 Frank Stokes, Waynesville, O.....	857,221
119 Frank Stokes, Waynesville, O.....	857,222
120 Mrs. F. J. Forsyth, Ashtabula, O.....	857,223
121 Frank Stokes, Waynesville, O.....	857,224
122 J. G. Johnson, Union City, Ind.....	857,225
123 Mrs. J. F. McArthur, Unadilla, Ga.....	857,225
124 Frank Stokes, Waynesville, O.....	857,225
125 John Idlet, Point Pleasant, O.....	856,867
126 C. F. James, Ortonville, Minn.....	856,865
127 L. W. Lovic Shipp, Washington, D. C.....	857,233
128 H. G. Utley, Manchester, Ia.....	857,235
129 G. H. Lehew, Proctor, W. Va.....	857,235
130 T. B. Black, Kenton, O.....	857,236
131 H. R. Keagy, Epworth, Ia.....	856,856
132 Miss C. B. Smedley, Pinelevé, Fla.....	856,856
133 R. T. Russell, Fort Payne, Ala.....	856,853
134 J. C. Miller, Waelder, Tex.....	857,242
135 D. M. Brower, Eaton, O.....	857,246
136 John Woehrlé, Moab, Wash.....	857,250
137 J. C. Goodwin, Akron, O.....	857,251
138 T. B. Black, Kenton, O.....	856,842
139 Blackmond & Goode, Elliston, Va.....	856,840
140 B. D. Barr, Waverly, O.....	856,839

ESTIMATE	
141 R. T. Russell, Fort Payne, Ala.....	857,253
142 T. B. Black, Kenton, O.....	857,255
143 T. P. Quarels, Abbeville, S. C.....	856,835
144 O. S. Evans, Roxbury, O.....	856,834
145 E. L. Wirt, Cookeville, Tenn.....	857,265
146 S. J. Denigan, LaCrosse, Wis.....	856,824
147 R. McGinnis, Nettleton, Ark.....	857,271
148 F. W. Kraft, Defiance, O.....	857,272
149 Mrs. A. F. Lehman, Xenia, Kan.....	857,272
150 N. P. Atkinson, Pataskala, O.....	857,275
151 J. P. Thowing, Walnut, Ia.....	857,275
152 C. W. Stewart, Plymouth, O.....	856,814
153 I. C. Roach, Hillsboro Bridge, N.H.....	856,809
154 T. B. Black, Kenton, O.....	857,283
155 Jos. King, Sylvania, O.....	857,283
156 E. A. Maginness, New Albany, Ind.....	857,283
157 Kirby Steele, Bartlett, O.....	856,803
158 E. M. Smith, Burlington, Vt.....	857,281
159 Eva A. Cleveland, Manchester, Ia.....	856,799
160 E. G. Colby, Bucksport Center, Me.....	856,798
161 T. W. Bridge, Orange, Mass.....	856,798
162 W. S. Settle, Lewistown, Pa.....	856,798
163 I. C. Roach, Hillsboro Bridge, N.H.....	856,797
164 Milo Keck, Tamaroa, Ill.....	857,296
165 John Gault, Allegheny, Pa.....	857,297
166 Mrs. M. F. Blaisdell, Franklin, Me.....	856,795
167 H. Williams, Morristown, Tenn.....	856,795
168 R. F. McKenzie, Waverly, O.....	856,794
169 H. A. Black, Ray, O.....	857,298
170 T. J. Shepard, Fort Valley, Ga.....	857,298
171 G. S. Pile, Blue Creek, O.....	857,212
172 T. B. Black, Kenton, O.....	856,791
173 J. T. Kinnan, Canal Dover, O.....	856,790
174 Mrs. M. F. Lewis, Enterprise, Miss.....	857,304
175 W. P. Wideman, Troy, S. C.....	856,782
176 John Reynolds, Greenville, S. C.....	857,306
177 Goode & Gordon, Elliston, Va.....	856,785
178 S. C. Hanson, Dalton, Ga.....	857,307
179 W. R. Zollinger, Providence, Utah.....	856,782
180 S. K. Winans, Stanfordsville, N.Y.....	857,310
181 Wm. Fann, Billmore, Mo.....	857,311
182 T. B. Black, Kenton, O.....	857,311
183 W. D. Davis, Longrun, S. C.....	857,311
184 E. M. Fasnacht, East Hanover, Pa.....	856,780
185 J. E. Beck, Rock Hall, Md.....	857,313
186 H. H. Crandall, Potterhill, R. I.....	857,313
187 T. H. Gordner, Garden Valley, Ida.....	857,317
188 J. C. Goodwin, Akron, O.....	856,773
189 J. S. Frank, Chester, O.....	857,321
190 J. B. Vannock, Columbus, Kan.....	857,321
191 R. Conard, Danville, Ill.....	857,325
192 G. N. Keeling, Bellbuckle, Tenn.....	857,325
193 O. S. Evans, Roxbury, O.....	857,326
194 H. L. Brown, Muscotah, Kan.....	856,768
195 J. M. Sanders, Dalton, Ga.....	856,767
196 H. L. Oswald, Lexington, S. C.....	857,328
197 Jas. Leonard, Gallipolis, O.....	856,765
198 Mrs. Effie Kemp, Harnedsville, Pa.....	857,329
199 J. S. Baker, Stevensville, Pa.....	856,763
200 Mrs. Cora Caple, South Park, Ky.....	856,763
201 J. S. Hill, Sr., Greenville, S. C.....	856,763
202 J. N. Hawkins, Altoona, Iowa.....	857,126

This is A FACSIMILE OF OUR CHECK FOR ONE THOUSAND DOLLARS Sent to Mrs. E. N. Norris, Valparaiso, Indiana.



The Crowell Publishing Company PUBLISHERS

No. 23832 Springfield, O. July 29th 1903
Pay to the order of Mrs. E. N. Norris, Valparaiso, Ind

\$1,000.⁰⁰ One thousand and ¹⁰⁰/₁₀₀ Dollars

To Lagonda National Bank
Springfield, Ohio.

The Crowell Publishing Company
R. L. Worthington, Treas.

WHICH IS THE ECONOMICAL FARMER?

[CONTINUED FROM PAGE 3]

is not good policy. I have heard him say that there is no use in paying out a lot of good money to educate a boy. He thinks that if a boy can read and write his name and figure interest, this is enough. But if they are figuring interest at all, it is for themselves, and that, too, in homes of their own far from the old place, for they all went away for themselves a good while ago. This man makes money. Things are always kept up neat about his place. He has a good bank-account; he pays his bills promptly; his stock is well kept; his horses wear good harness, and they look sleek and well kept. He would resent it if you were to tell him that he has missed the mark in his calling. Wherein, then, does he fail, if he fails at all? I have my idea on this point. It seems to me that true economy does not consist simply in good houses, fine stock, careful farming, and close figuring in the use of money. It means such treatment of wife, children and all one comes in contact with as will enable them to make the most of themselves. If by spending a dollar for books, papers and schooling a man can help some one to earn two dollars, is not that true economy? Or to put it on a broader platform, if that dollar is the means of bringing about a better citizenship in the boy or girl who uses it, is not that economy of the very highest type? I think so. E. L. VINCENT.

CURRENT NOTES

The farmer who keeps his thinking-cap on is the one that reads, keeps posted, and therefore makes the farm pay.

The raising of grain and forage crops must ever form the basis of successful agriculture in the leading Western states.

According to the last census, the states in which the total value of poultry and eggs was the greatest were Illinois, Iowa and Missouri in the order named.

The aggregate value of what we sent to British America last year exceeds by seventy million dollars what we have received therefrom. We cannot afford to be on other than very good terms with such an important customer.

Farming is gaining ground. Chemistry has come to our aid. It has helped us in ascertaining what substances are abundant in the soil for the production of grain and fruit, as well as what it lacks and what must be supplied in order to make crop-growing profitable.

It is believed that a turning-point has been reached, where the board of directors of colleges created by the Morrill Act of 1862 are beginning to realize that the principles of agriculture and the mechanic arts were to be taught instead of the dead languages.

The capacity for apples of the cold-storage plants east of the Rockies is about five million barrels. The average price of storage from October to April is forty cents a barrel. Some firms handle one hundred thousand barrels, and obtain much better average prices than before cold-storage houses were built.

If it is good policy and good statesmanship to spend many thousands of dollars annually to keep the waters of the Mississippi River from overflowing its banks, it is equally good policy for the general government to aid in putting water on the lands of the great plains, so as to render them productive.

The kind of smartness that don't pay is the mixing of macaroni wheat with other kinds. The miller wants each variety separate, and prefers to do the mixing himself if he deems it necessary. He can afford to pay more for a single variety than for mixed wheats, as he then knows how to adjust his mill to produce the greatest quantity of the best flour.

The idea that has taken possession of the mind of James J. Hill, the Great Northern Railway pusher, of educating the peoples of the Orient—more particularly those of China—to the real merit of wheat-flour as a partial diet, instead of using rice exclusively, may yet become one of vast importance to the wheat-growers in the great Northwest.

The great pork trade of the United States has been built up by government supervision, through the Department of Agriculture. In 1898 the Secretary of Agriculture recommended that the same supervision be extended to dairy products. This was not done in respect to cheese, and the government of Canada took up the matter of cheese-inspection. The reputation of United States cheese was damaged in England, and a dwindling export trade has resulted. * * *



GROWTH OF MY PIGS WAS MARVELOUS

International Stock Food Co., Minneapolis, Minn. MOUNTAIN GROVE, Mo., December 7, 1902. GENTLEMEN:—I have tested "International Stock Food" for Horses, Cows, Calves and Hogs, and it gave marked results in every case. I had a horse with the farcy, swollen as thick as my hand all over the belly, and after two weeks' feeding of "International Stock Food" he was sound and well. All my teams have done remarkably well and are fat. My cows also show a large gain in milk and flesh, and it caused the finest growth on a jack colt that I ever saw. My fattening hogs have done the best I ever had hogs do, and the growth of my pigs and shoats was simply marvelous. A stockman remarked that my thoroughbred hogs were the finest he ever saw. I never expect to be without "International Stock Food" for my stock, as it makes me extra money. Yours respectfully, JAMES B. DAKE.

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Who'er hath known a homeless one,
That trod the earth beneath the sun
Of any sky,
Or drifted o'er the ocean foam,
To listen long to tales of home,
Without a sigh?

Though wand'ring far from humble cot,
Or lowly hut and meager lot,
To scenes of joy,
The home of childhood ever seems
A sacred thing in thought or dreams
Of girl or boy.

Should fleeting years find us afar
From early home, yet like a star
Far o'er the sea,
To all who turning backward gaze,
It shines—oh, sacred, wistful rays!—
In memory.

When age creeps o'er us like a sleep,
And time has wrought our wrinkles deep
And bent us low,
Back through the flight of years, to trace
The journey to its starting-place,
Our thoughts will go.

No altered lot, no brighter scene,
Nor time nor circumstance, can wean
The heart away;
Can wipe from mem'ry's crowded wall
The cabin, mansion, hut or hall
Of early day.

Childhood's Home

By J. THOMAS HARBINE

The vine still 'round the maple clings,
The bluebird in the apple sings,
And flowers blow,
To-day as of years ago,
When life was in its dimpled dawn,
Long, long ago.

Still, quiet, patiently and staid
The brindle cow awaits the maid;
Old Towser bays;
The house, the rumbling mill down there,
All seem to be as once they were—
In other days.

The creek that glided 'neath the bridge,
Behind the barn and 'round the ridge,
Who can forget?
Or who that tumble off the plank,
And breaking for the nearest bank,
All dripping wet?

The little games we used to play,
The hiding-places in the hay,
The road to school;
The monster there, who never smiled,
Whose glory 'twas to teach the child
By stinging rule.

These and the thousand other joys
And pains we knew as girls and boys
Are still so real;
And though the duties of to-day
Oft crowd the scenes of youth away,
Still back they steal.

Mid lights which 'round youth's lot were cast
Are mingled shadows of the past;
See yonder waves?
The moaning wind doth softly creep
O'er these lone spots where dear ones sleep—
In silent graves.

O mother! on whose weary head
The silver snow of time was spread,
Thou good and wise,
Though resting 'neath the grassy hill,
We see thee, mother, see thee still,
Through humid eyes.

Ah, yes, old home may be indeed
Decayed, and o'er its site the weed
And brier wild
May rankle on from year to year;
But sacred art thou still, and dear!
Home of the child.



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Mr. Greiner Says:

IN THE CHAIR OF HORTICULTURE at Cornell University the popular, practical Craig follows the brilliant Bailey, the latter now being Dean of the College of Agriculture and Director of the Experiment Station. The horticultural end of the college is safe in Craig's care. The fruit-growers of the state are especially pleased with his selection for the place.

THE ADVERTISING COLUMNS of farm papers are the places to look for information where seeds, plants, implements, etc., may be procured. Recently I mentioned the Van Deman, a strawberry recommended by Prof. H. L. Hutt of the Guelph (Ont.) Experiment Farm, as better than Michel's Early. A reader asks me where he might get the plants. I don't know, but will ask Professor Hutt, and also look through the catalogues of our leading plantmen. Everybody who wants plants can do that. Plant-growers who have a really good thing do not hide their light under a bushel. They usually advertise. If the Van Deman is not worth advertising, it is not worth planting.

SEED WHEAT AND OATS.—A reader asks me for prices on the genuine Dawson Golden Chaff wheat and White Siberian oats for seed, or if I can furnish these grains or the addresses of farmers who could. As I have often said, I am not in the trade, and do not desire to sell plants, etc. Usually at this time, however, farmers who grow seed-grains for sale (and there are a good many in the country) put their cards and advertisements in the farm papers, and there is where our friends must look for them. The advertising columns are frequently as interesting and of as much value to the reader as the best selected and most skillfully edited reading matter.

STRENGTH OF SPRAYING-MIXTURES.—An "old subscriber" of Douglas County, Missouri, says he has found six pounds of copper sulphate for fifty gallons of mixture too much of a good thing, and four pounds sufficient at all times. Two pounds to fifty gallons failed to prevent black-rot in grapes, about one hundred Concord vines being thus treated, while the rest of a six-acre vineyard was sprayed with the four-pound strength with good results. If an insecticide is needed, he adds three ounces of arsenic dissolved in a caustic-soda solution to the Bordeaux mixture. The arsenite of lime formed is so finely divided that it does not settle in a common knapsack sprayer while being applied. Under ordinary conditions the best results obtained were with a Bordeaux mixture containing four pounds of copper sulphate, six pounds of lime and three ounces of arsenic to fifty gallons of water.

SODA OR LIME.—The same correspondent says he should certainly prefer the lime at all times. When lime is used, an excess of it is beneficial to the plants treated. For many years a whitewash made of three pounds of lime to one hundred pounds of water has been used in Italy against downy mildew on the foliage of grapes, the good effect on the leaves being very noticeable. That part of the lime which combines with the acid of the copper sulphate is also just as ready to fix any stray carbonate of ammonia that happens to be around, as it was in Benjamin Franklin's clover-patch. Copper-hydro-oxide will do the same. The powerful antitoxic action of an ammoniacal solution of copper carbonate is well known, yet there is no trace of sul-

phur in it. Sulphur has been found effective in powdery mildew, but certainly a failure in downy mildew and grape-rot. Our friend also reports excellent results from spraying potato-vines, and even the seed-potatoes before planting, using the standard Bordeaux mixture. Last year, he says, he planted four thousand square yards in Early Ohio, sprayed the vines three times, and raised two hundred bushels of fine potatoes, good enough for the Ozark country where land like it sells for from five dollars to ten dollars an acre, and sometimes for much less. Therefore, "let us stick to the old Bordeaux mixture made with lime."

LEARN HOW TO SWIM.—A week or two ago a man swimming at Olcott Beach in this county was seized with cramps, and although within twenty feet of a dozen men and women, was drowned. In reporting this occurrence the New York "World" says: "Half a dozen men cannot let another drown within twenty feet of them without incurring a certain amount of discredit. If they could not swim, it merely pushes the discredit one stage back. No man of sound body has any excuse for not knowing how to swim, and no woman, either, for that matter. If any boy passes the age of twelve without learning how to take care of himself in the water, there is something wrong with his home training. If he reaches the age of twenty-one without knowing how to look out, at a pinch, for somebody else in addition, there is something wrong with himself." This is about right. The art of swimming is easily acquired, because natural. Who fails to acquire it neglects an opportunity, and will miss a good deal of sport and enjoyment, besides.

GENERAL RULES WITH WEEDS.—A Washington reader forwards portions of a plant, which he says is a weed that started in his asparagus-patch, and seems to be spreading. It arrived all dried up and crumbled into an unrecognizable mass, so that even a botanist would have been unable to identify it. But it matters little. It comes under the general classification of weeds and under a general rule of treatment. Wherever you see a weed, hit it. Pull it up, cut it down, get it out—that is the way to stop the spread of any weed. Some weeds are very persistent, it is true; but we have to pit persistency against persistency. Planting crops which require frequent and violent stirring of the soil is one of the surest means of eradicating even the worst weed pest. In ordinary bad cases I may plant potatoes (as, for instance, in an old hedge or fence row). I keep the ground cultivated as long as possible with the ordinary cultivators, then give a more violent treatment by using the shovel-plow, but this as an emergency tool only. This tears out the weeds in the center and chokes them out in the potato-rows. For weeds with which even this (with me) unusual resort to the shovel-plow is insufficient, I would recommend planting late celery, to be banked with earth. The violent manipulation of the soil required for this crop will kill out any ordinary weed in the end.

THE AGRICULTURAL DEPARTMENT AN INFORMATION-BUREAU.—I have always found the officers of the Agricultural Department in Washington willing and ready to impart information, and I frequently go to them with my troubles. If I find an insect, a plant, a plant-disease, that seems new to me and about which I want information, I write to the Department in Washington and ask them about it. The Department is even willing to furnish frank envelopes and labels, so that we may forward specimen insects, plants or fruits without having to pay postage on them. If these things are put up carefully, so that they arrive in good condition, the Department experts will identify them and tell you all about them that is known or you may wish to know. In many cases, however, the packing is done very unskillfully. Such things are frequently sent to me, and often there is nothing left of them but a mashed mass or dried-up fragments perfectly unrecognizable. Insects might be put in vials and placed in little wooden boxes, or wrapped in cotton and then put in the wooden boxes; plants should be packed in damp moss, and wrapped first with oiled paper, then with strong manila paper, or shipped in pasteboard boxes or light baskets, using plenty of damp moss, etc. Farmers should call on the Department in Washington and on their own state experiment stations for help far more frequently than they do. These institutions are their legitimate information-bureaus.

SUFFERING THROUGH IGNORANCE.—Every effort for the protection of live stock against insect pests is praiseworthy and deserving of a premium, but I would hardly agree with the editor of a farm paper, published in the Middle West, who awarded the third prize to a contribution containing the following method of exterminating chicken-lice: "We shut the chickens in their houses, and burn sulphur. Some fire is placed in a pan, or similar open vessel, and paper or other dry material is added to keep it burning, and the sulphur is placed on this. The object is to get as much sulphur-smoke as possible. It penetrates the cracks and crevices about the house, and if strong enough will kill the lice on the fowls as well as in the house. Care must be taken not to inhale it, and the fowls must be noticed, for too much would kill them. As long as they keep moving, they are all right; but if they begin to drop off the roost, it is time to open up and give them fresh air. We keep the fire near the door, and add fuel or sulphur when needed. We keep it burning long enough to fill the house with smoke. For best results the house needs to be reasonably tight. We use insect-powder to keep little chicks free of lice."

If prizes had been offered for the most cruel method of exterminating chicken-lice, I think I would have awarded the first to the writer of the foregoing paragraph. But what fearful suffering ignorance will inflict upon dumb brutes, and often on helpless children, too! If the advocates of the described method of fighting chicken-lice were given a foretaste of Hades and a dose of their own medicine by being shut up with the chickens in the house thus filled with sulphur-fumes for a while, or until they were "ready to drop from their perches," no doubt they would afterward try to discover more humane methods of accomplishing their purpose. Hen-lice are not so difficult to deal with that heroic means of this description are needed. Fumigate

the house when the chickens are outside, and give the latter sufficient chances to dust themselves in dry ashes, lime, etc. Dust their feathers a few times during the season with insect-powder or tobacco-dust, use kerosene freely on the perches and on the inside of the hen-house, etc., and neither lice nor mites (or red spider) will give much trouble. The object can be accomplished without cruelty and torture.

Mr. Grundy Says:

LONG DAYS ON THE FARM.—"The work is varied enough to suit almost anybody, but it is the everlasting long hours that I object to. That is why I am here. When my hours are finished here I'm done for the day." The speaker was an intelligent young man—a street-car conductor—and we were waiting at the end of his run for "time." He had left the farm the year previous, came to the city, and after watching and waiting four months had secured the place he was then in. He could talk about farming in a way that showed very clearly that he understood it all right, and that made one feel that the farm was his place, and not a street-car.

He said his strength and health were all the capital he had, and he did not propose to let any man have all of both in return for a small wage. The last farmer he worked for called him at four o'clock in the morning, and supper came at nine o'clock at night. He stood it until he could leave without breaking his contract. At home he said they generally arose at five in the morning, and had supper between seven and eight. He used to think the day was a long one there, but when he went out as a hired man he found them still longer. He declared that such long days were entirely unnecessary to properly carry on the work of the farm, but farmers appeared to think they must be at it early and late to make anything. He said he would rather live on a farm than any place in the world, and if he owned one, there's where he would be, and he was satisfied that he could make a good living, and more, by working ten hours a day.

"Farming is the best and safest business in the world. The only drawback is the long hours, and the farmers themselves are to blame for that." The speaker was a laboring-man who works in a lumber-yard. He was a farm-hand nine years, and hoped some time to own a farm, but land climbed up beyond his reach before he accumulated enough for a first payment. He never will be a farmer, but he loves to talk about farming, and actually takes two agricultural papers. "Farm-hands are very scarce," said he, "and wages much higher than I ever received when I worked on farms, but I will not work for any farmer so long as I can get anything else to do. The long hours are my chief objection, and besides, there is a lack of system and good business management that takes all the spirit out of one who likes to see things kept in good shape and the work done in a thorough manner."

The best men for farm-work—those who have been raised on farms and understand the work—have most of them gone to the towns and cities, and the boys as they grow up are going. A farmer who raised three strapping big boys, all now in cities, said to me that he would have to quit farming because he was unable to obtain any satisfactory help. One of his boys said a few days ago, "I wouldn't live on a farm and work like father does if I had to peddle papers for a living. He used to make us boys hump when we were at home, and then we couldn't do the work to suit him. I'm glad I'm out of it!" Rural free delivery and the telephone will not stop the exodus of boys from the farm while the late-and-early, push-to-the-limit methods prevail. The city laborer knows that the minute the whistle blows his day's work is done. The boy on the farm and the hand on the farm know that they must work as long as the sun shines, then do a lot of wearisome chores when they go home. "I do not consider the work hard," said a spirited young farm-hand, "but they keep us in the field too long. We get out early, and then are not expected in until sunset. Riding a plow or cultivator is not hard work, but twelve to fourteen hours of it a day is monotonous and wearisome." It is not possible to work "regular" hours in harvest, haying-time and when rains interfere much with seeding, and the boys are well aware of this, but it is not difficult to so manage that the rush and hustle will not last the entire season. Farm life is not monotonous unless it is made so. It is not wearisome unless made so. It should be the most attractive life one can live, and can be made so. It should be attractive to the boys and hired men, and it can be made so. It is not "lonesome" on the farm to any person with a normal brain and open eyes. It is lonesome only to the rattlepate who is everlastingly and eternally hankering for "company" and wanting to be in a crowd of some kind or other.

ATTRACTIVE FARM HOMES.—I wish I could more forcibly impress on the mind of the farmer the value of attractive surroundings. Every farm home should be attractive. It is not necessary to have a fine house or fancy cottage, or expensive lawn fence to make the farm home pretty. To be sure, a neat fence, a few ornaments on the house and the free use of paint help mightily, but the chief attractions can be made of trees and shrubs. A shady lawn and a shady driveway are always attractive. Groups of trees, shrubs or flowers never fail to charm. The lawn may not be kept perfectly smooth, all the trees may not be cleanly pruned, yet the home place ornamented with them does not fail to convey the impression that peace and contentment dwell there. As a lady from the city said, "A pretty farm home suggests a happy bird's nest. We do not notice the dwelling so much as we do the surroundings. If the surroundings are pretty we know that the interior of the house is all right and that it is the abode of love and contentment and all that makes life worth living. We look to the city for fine mansions, but to the country for pretty homes."

FARM THEORY AND PRACTICE

AGRICULTURAL LIME.—Interest in the use of lime on land has become so great in the last few years, as indicated by the great increase in sales of prepared lime and by inquiries from readers of farm papers, that it may be wise to restate as briefly as possible what is believed to be the facts about the correct use of lime for soil-improvement. A number of big lime-manufacturers are now selling their product to farmers on an extensive scale, and the profitable use of this material depends upon the intelligence of the buyers.

In this country we have large limestone sections where the stone may be burned on the farm by its owners, and in such sections some land has been injured by its free use. Lime is one of the elements that are required in the growth of plants; but most soils have it in abundance as a plant-food, and the benefits derived from a time from the excessive applications of lime burned by the farmer were due to the stimulating effect upon the land. It was used just as if it were a manure, and temporary soil-exhaustion resulted. The modern use of lime, of which more is now being said, is entirely distinct from the older and lavish use that brought it into disrepute in some limestone regions. I do not assert that a heavy application of lime to a stiff limestone soil may not be advisable in some instances to improve physical conditions of the soil, but our interest is in an entirely different use of this material. There is an immense area of land, constantly increasing in size, that does not grow good sods of clover and timothy, and much of this land when tested for acid shows that it contains free acid that is harmful to most plants. Anything that will make a heavy clover sod for plowing down is a benefit to the soil, and we are learning that a very light application of lime will do this for much land.

GROUND LIME.—The old way of using lime was to haul it to the field, slake it in piles, and spread with a shovel. It cost little, and was used in harmful quantities. Such liberal use is out of the question for land remote from supplies, and also is entirely undesirable. But when it comes to using a small quantity to the acre, with the old method of distributing it, there were difficulties. Years ago I slaked it, then scattered it by hand, which was a hard task. Then I tried a fertilizer grain-drill; but the slaked lime was too floury to feed well, and as it had doubled in volume by slaking, there was a difficulty in getting a few hundred pounds to the acre.

Finally the lime-burners came to our rescue, equipping themselves for grinding the stone lime, and then bagging and shipping it to us so that we could run it through the drill before it slaked. This ground lime is more granular than the slaked, less bulky and more effective, pound for pound. One would suppose that the ground lime would slake, and burst the bags before it could be used; and in a wet season this may occur, especially if a pure limestone is used for burning. Many burners, however, use a magnesian limestone that slakes less readily, and such lime gives good results. Ground lime, however closely bagged, is not attacked readily by the moisture in the air.

AMOUNT TO THE ACRE.—The amount to the acre that should be used depends upon the soil. I have had marked results from one fourth of a ton, but believe that one thousand pounds to the acre should be used by any one testing it for his soil. It can be bought at the factory for from three dollars and fifty cents to four dollars a ton, and the addresses of manufacturers may be found in the advertising columns of the farm papers.

HOW TO APPLY LIME.—This use of lime is to secure a sod. The application probably should be made before the seeding is done. If one sows timothy with wheat in the fall, or clover in wheat in the spring, the lime should be applied while fitting the land for wheat. I think that it should be kept near the surface, and yet it should be covered with earth. For these reasons the grain-drill is a good distributor. The application can be made at any time during the process of fitting the ground for wheat, but preferably after the soil has been made fine and firm.

THE DRILL.—Some grain-drills with fertilizer attachments have too limited capacity for applying even ground lime, though one can get the proper amount on the land by going over it two or three times. Other styles of drills are able to apply one thousand or fifteen hundred pounds. They are the ones to use, saving both trouble and expense. The sooner the lime is safely in the ground, the less danger of any slaking, and bursting of the bags.

VARIOUS FORMS OF LIME.—Some manufacturers are selling a granular lime at a high price, claiming peculiar merit for it. There is every probability that it is less valuable than the ground lime, because it has been slaked, and the process of slaking adds weight, and not value. Some of the claims are ridiculous. The need of the soil is for lime, and that is most effective, ton for ton, when fresh-burned—stone lime ground fine, to make even distribution possible.

NOT A FERTILIZER.—It is unwise to depend upon lime as a fertilizer. It will help the growth of crops on some land, but its use tends to soil-exhaustion except when made to secure a good sod. It is wise to apply the usual commercial fertilizer with the wheat, depending upon the lime only as a means of getting

All Over the Farm

clover where it now fails. In some soils the lime will not do even this, but a trial of it is advisable. In the last few years there has been so great success in getting clover on acid soils by these light applications that some manufacturers cannot fill their orders for lime in the fall. Any one proposing to experiment with it should get the addresses of manufacturers from the advertising columns of his paper, write to those nearest him for quotations—which should not be higher than four dollars a ton—and order at once. DAVID.

LAWNS ABOUT FARM HOMES

The so-called lawn around farm homes is usually a portion of the ground that has been in meadow, although too often no pretense is made of having any lawn. It is admitted that the meadow lawn is vastly better than bare ground, but the satisfaction of having

grass and white clover will give the best results. The proportions are two pounds of white clover to ten pounds each of the timothy and blue-grass to the acre. If the soil is inclined to be sandy, the amount of white-clover seed may be increased to three pounds. This mixture is advocated, because it gives a permanent lawn, containing none of the seeds that have but a short period of growth during the summer. Further, grass from this mixture will not need the frequent mowing that is needed by lawns composed of the seed-mixtures usually sent out by seedsmen, although frequent mowing, especially if a scythe instead of a lawn-mower must be used, will not be objectionable.

If one has a lawn in fairly good condition except that the grass has died out in places, or is thin, re-seeding can be done, using the mixture advised, by going over the surface with a light harrow, being careful not to injure the roots of the grass, and scratching the soil so that seed may be sown all over the plot.

While seeding is generally done in the spring, I have had good success even in my rather warm location by September seeding, particularly when I was able to supply for a number of weeks the water needed. After seeding, the ground should be well watered, and later in the fall, just before freezing, a top-dressing of fine manure should be spread rather thickly over the entire plot. In colder sections this may be followed, after the ground is well frozen, by a quite heavy application of manure which contains considerable straw. In the spring, after the frost is entirely out of the ground, the coarse portion may be removed, leaving the manure proper to help enrich the soil.

On small plots or on thin places in the lawn one can sow grass-seed at almost any time during the summer, if the plot can be kept well moistened, and get a fair growth before winter.

The expense of obtaining a lawn after the plan proposed is so small that there is no reason why ever farm home should not be surrounded with a stretch of green, smooth in texture and rich in coloring.

GEO. R. KNAPP.

THINGS THAT FOLLOW

It is a good plan to give a thought now and then to some things that naturally grow out of other things. For instance, the other day the floor of a barn not far from my home gave way under a little extra weight, and went down with several horses, landing them some ten or twelve feet below, cutting them up and otherwise injuring them. A short time before this happened I knew of a bridge forming an approach to a basement barn dropping through, carrying down a span of horses hitched to a heavy wagon, throwing the driver many feet, breaking the wagon, and smashing things up generally. In both these cases rotten timbers lay at the bottom of the accident.

In another line, not very long ago I saw a lad lose control of his team while on the farm going with a stone-boat from one field to another. In some way he slipped back from the boat, frightening the horses, and sending them off on the run. The boy soon lost his reins, and the team went on the gallop until they came to a rail fence. One horse jumped over the fence, the other remaining on the opposite side. Both went down, tangled in the harness, and had to be cut loose. It was a bad job to get them untangled.

Now, these were things that follow other things. I think farmers, as much as railway engineers, must constantly be on the lookout when about their work to escape danger from such accidents as I have described. But can they do it? Timbers will rot, and missteps may happen to the best of us. That is true. But if everybody were now and then to take time to examine the sleepers of their barns and bridges, would not that tend to obviate accidents?

The fact is, we as farmers are not as cautious as we should be. We leave our boys to learn for themselves instead of telling them the probable effect of carelessness beforehand.

It is only a short time ago that I knew of a farmer's wife who fell from a high scaffold in a barn where she was filling a bedtick. She dropped as much as fifteen feet, and nothing in the world prevented her being seriously injured except the fact that she struck on a pile of straw. Now, the high scaffold was no place for that woman, nor any other woman. She should not have been compelled to go up there to get straw for the tick. There are men-folks who should attend to all such things. Another woman I know of went down into a silo, and fatally injured herself by drawing her body up by her hands to get out. She died in less than three days after that. Here, too, the woman was out of her place. The man of that farm was to my knowledge a strong, able-bodied fellow, and could have done that work without hurting himself. The woman was anxious to help, and had only the best of motives at heart.

Then, too, think of the disasters from old guns and revolvers. Every year death reaps a great harvest on the farms of this country from this source. The other day a farmer lad near my home shot himself through the head with an old revolver he had been cleaning. If he lives, one eye, and perhaps both, will be blind. I do not think much of such weapons in the hands of boys or careless men. E. L. VINCENT.



DAVIS, THE OLD GARDENER WHO HAS BEEN IN THE SERVICE OF THE ROOSEVELT FAMILY ALL HIS LIFE

a grass plot from the proper mixture of seeds which can be mowed repeatedly during the summer, and yet be green and velvety, is worth all it costs to obtain it. On the other hand, the seeding of some meadows has been such that with a little addition of certain seeds and a leveling of the space a very satisfactory lawn may be had at comparatively small expense. A good way to secure this is to first make the space level—not flat, for this is not always desirable, but free from hills and hollows.

While this work is perhaps best done in the spring, I have been quite successful with it in the fall by following this method: Where there is a hollow or small hill covered with a good growth of thick sod, with a sharp spade the turf is cut about a foot wide and three feet or more long, the spade inserted underneath, leaving the sod as thick as possible, and the strip rolled back. Then the hill is leveled or the hollow filled in with rich soil, as the case may be, the strip of sod rolled back into place, and well tamped (pressed) down. If the cutting is done carefully and sharply, so as not to leave broken pieces in the strip, there will be no trouble about the grass dying out.

When doing this work in the fall, a quite heavy application of fine stable manure should be given just before the ground freezes, after a thin coat of good soil is sprinkled over the strip, and especially over the places where the cuts were made. This may seem to be considerable work, but if well done we still have the heavy growth of sod, which would require several years to obtain from seed.

Of course, if the place for the lawn has but an indifferent growth of grass on it, the plan suggested will not do, for such a place should be graded, leveled, rolled and sowed to the proper mixture of grass-seed

Gardening

By T. GREINER

THE DUST MULCH.—All this talk of maintaining a "dust mulch" among our plants in the garden has little significance or application this summer. The only mulch that it has been possible to provide for a long time is a "mud mulch."

PACKING AND SHIPPING MUSHROOMS.—L. O., a reader in Pike County, Ill., asks about the proper way of putting mushrooms on the market, and whether freezing hurts them. Mushrooms can be safely shipped a hundred miles or more, simply packed in small baskets or in pasteboard boxes, and just covered so they cannot fall out. Freezing does hurt mushrooms.

CULTIVATING FOR MOISTURE.—We don't have to cultivate this year to preserve moisture, and we have little chance to cultivate to kill weeds. What we would like to be able to do, however, is to cultivate to

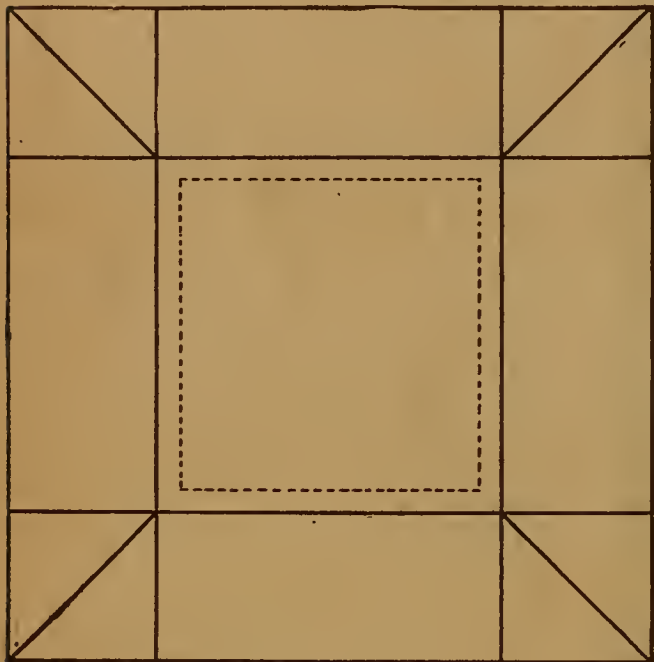


FIG. 1

dry out the surface of the soil. Circumstances alter cases. Prof. I. P. Robert's famous plan of growing largely increased crops of potatoes involves the frequent use of the cultivator. How shall we manage this year to grow big crops? Let Nature have its course?

KEEPING POTATOES FROM SPROUTING.—A reader in Ward, Ohio, writes me that a few years ago he bought a bushel of Early Ohios from a neighbor for planting, took them home, and put them into an old salt-barrel. These potatoes when planted never came up. Others planted at the same time did. The potatoes when taken out of the barrel and planted looked wet, but otherwise nice and fresh. Our friend says the best keeper he has yet found is the Blue Victor. Specimens have been kept for two years in good condition.

WEEDS A PUZZLE.—It is truly a puzzle sometimes, in seasons like the present, how to get rid of the weeds that spring up and grow thriftily in the water-soaked soil. Sometimes they make such large root-growth before we are able to get on the land again after these heavy rains that pulling up the plant means pulling up a lot of onions or carrots or beets, or whatever it may be, with the weed. If you carry a knife, simply cut such big weeds off near the surface of the ground, and let the root remain. However, we should always try to get these weeds out of our gardens before they are too large to be pulled.

AUGUST THE BRUSH MONTH.—To kill brush of all kinds, that spring up in pastures, hedgerows, etc., it is often advised to cut them in August, and as some say, in the dark of the moon and when the sign is in the heart. It will probably make very little difference in the final result where the sign is, or whether the job is done in the dark or in what other phase of the moon; but the advice to cut brush down in August is all right. If any brush that should be cut still remains uncut when this gets into print, I would not wait a day longer than necessary, but cut them down yet. Such cutting at this time will weaken the stump and roots as much as cutting at any other time.

FERTILIZER FOR WHEAT.—D. P., Dover, Del., has fifteen acres of white-oak land that has been in pasture for about seven years, and seems rather poor. He wants to sow wheat, and would like to know what fertilizer he should apply, suggesting the use of lime. The probabilities are that a plain superphosphate, such as dissolved South Carolina rock—which can be had at from eleven dollars to fourteen dollars a ton—will give the best financial results. Superphosphate contains lime (sulphate), and if applied at the rate of a few hundred pounds to the acre will surely do no harm, and draw but lightly on the pocketbook in the first place. If you try anything, try superphosphate first.

HANDLING THE HOE.—I often have to show my helpers how to handle the hoe. It is queer how few experts there are in the use of the hoe. Most people think that all that is required of them is to scrape across the surface, clearing it from the top growth, and leaving the stubs and roots in the hard surface then left. I had the rows of my currant and gooseberry bushes and grape-vines, or rather the ridges left after plowing the soil away from both sides of each row, hoed or grubbed; but when I found that it was done simply by "scraping," I let my boy go over the whole

again, loosening up the hard surface, digging up the weed roots and stubs, and leaving a layer of loose soil on top. Really good hoeing seems a hard lesson to learn for most farm-laborers—but good hoeing is the only hoeing worth doing or having done.

MOST PROFITABLE AUTUMN CROPS.—C. H., Acton, Ind., a lad of sixteen summers, has obtained from his father a fraction of an acre of ground to do with as he pleases for his own benefit. The ground is very rich, and he wants me to name the most profitable crops that he could raise on it this fall. That question is not easily answered. I would raise the crop for which I were sure of finding the quickest sale at best figures. In some places this may be radishes or turnips or kale or spinach or lettuce, or possibly celery. Celery may possibly require a little more skill and a vast deal more of labor, but where there is a good local demand for it, it is surely one of the great money crops. Then, again, where there is sale for early green onions, one can sometimes make more money from a little patch of ground planted with the hardy onions in the fall, such as Barletta, New Queen, Portugal, Beaulieu's Hardy White Winter, and possibly Prizetaker, than from a similar piece planted with anything else. The question hinges altogether on the demand for the article. Our young friend says he has not much time to work in the garden. The growing and preparation of such crops for market require some time, and these must be given if success is to be assured.

PLANT-PROTECTOR.—Laura G. H., who lives in Illinois, sends me a model of a new patented plant-protector of her own invention. It is made of waterproof paper folded to form a square box, and held firmly together by wire clips. Fig. 1 shows the square piece, and the dark lines the folds. Fig. 2 shows the box folded on one side, with wire clip attached, and one side not fully folded. The wire clips pushed down into the soil hold the box firmly over the plant or hill. Of course, a protector of this kind could be put on only during the night, as a protection against frost or cold winds, and should be removed in daytime to admit light. But why not cut out a square at the top, as shown by the dotted lines in Fig. 1, thus giving a chance for leaving the protector over the plant or hill during the day, also? A piece of mosquito-netting or coarse cheese-cloth may then be fastened over the top, as shown in Fig. 3, or a pane of glass may be placed over the opening. In some cases protectors of this kind, or like the "gold mine" plant-protector mentioned in an earlier issue of the FARM AND FIRESIDE, may be found quite useful for the protection of early tender plants, such as melon or cucumber vines, tomato-plants, etc. I seldom use such devices, and manage to get along very well in my garden-work.

Fruit-Growing

By S. B. GREEN

INSECT ON ROSES.—O. C., Leland, Ill. Please send me a specimen of the insect that injures your rose-bushes, and I will try to give you a good remedy. In destroying any kind of insects, the first thing to know is their habits. If it is a sucking insect that is doing the damage, then we must use very different remedies than we would use if it was a biting insect. For biting insects we use such remedies as Paris green, hellebore and other poisons, while for sucking insects we use oily soaps, like whale-oil soap, or astringents, such as tobacco-water. Good examples of sucking insects are plant-lice, leaf hoppers and scales; of biting insects, potato-bug, cabbage-worm, tent-caterpillar and cutworms. In the case of fungous diseases there are also various methods of treatment, depending on the nature of the disease. Thus you see it would be quite out of the question to give specific directions for destroying all kinds of insects and fungous diseases within the limits of these columns.

EUCALYPTUS.—J. W. C., Chattanooga, Tenn. There are many kinds of Eucalyptus; I think something over one hundred species are known to botanists. Some of these are of great value for their wood, being very durable, and the wood fine-grained and susceptible of a good polish. Others are almost worthless for any-

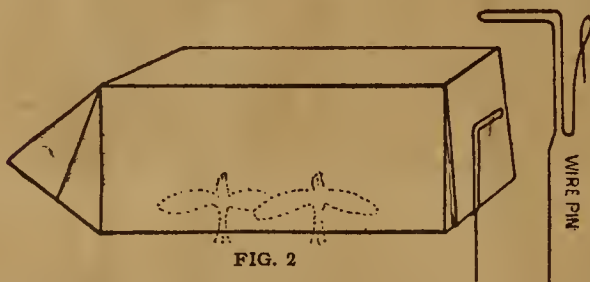


FIG. 2

thing but fuel. They are natives of warm climates, and I know of none that will stand much frost, although a statement to the contrary has recently gone the rounds of the press. Consequently they are useless in the United States except a small portion of it. Seed of the common varieties may be obtained from J. M. Thorburn & Co., seedsmen, New York City. The kind generally planted is Eucalyptus globulus, which is a very rapid-growing tree. Professor McClatchie, of Arizona, said he once knew of a tree of this variety that grew to a diameter of eighteen inches in six years. It has very pretty light green foliage, is quite ornamental, and is used more or less by florists in their work. Recently a fine monograph on the Eucalyptus has been issued by the Bureau of Forestry of the United States Department of Agriculture, and I think it may be had on application.

MANURE FOR BLACKCAPS—PRUNING CURRANTS—STRAWBERRY-SETS—BUDDING ROSES.—D. H. S., Ionia, Mich. A large amount of animal matter placed about the roots of a blackcap would very likely destroy it,

although not necessarily so. If this was the case it could have been entirely avoided by burying the matter at least two feet away from the bush, when the plant would have found it and used it just as well as if buried close to it.—The best way of pruning currants is probably to remove the weak wood. This will consist of that which is old and that which is infested with borers. It is also a good plan to cut off the growth that is inclined to lie flat on the ground. It should be remembered that the currant wood does not bear fruit until two years old, so it will not do to depend entirely upon the new growth for fruit.—Strawberry-sets may be taken from old vines, provided the sets are of the previous season's growth; but if by sets from old vines you mean pieces from old vines or the old vines themselves, then I should answer you that they are practically worthless for starting a new strawberry-bed.—The best time to bud rose-bushes is during the latter part of July or early in August, or from that time on until the growth stops. In doing the work any well-matured buds may be used in the same way as with the peach or cherry. Our common strong-growing wild-rose stock answers very well for almost any of the cultivated hardy varieties of roses.

PROPAGATING FROM CHERRY SPROUTS—RUSSIAN MULBERRY AS BIRD-FOOD—KOONCE PEAR.—C. H. W., Conneautville, Pa. Sprouts from the Montmorency cherry on budded stock would probably be the same as the stock and not like the tree itself, but one would have to use his individual judgment in determining whether the sprouts were true to name or not. In any case, sprouts from cherry-trees are slow in getting started, and seldom do as well as budded trees, although for severe climates I prefer them. In taking them up

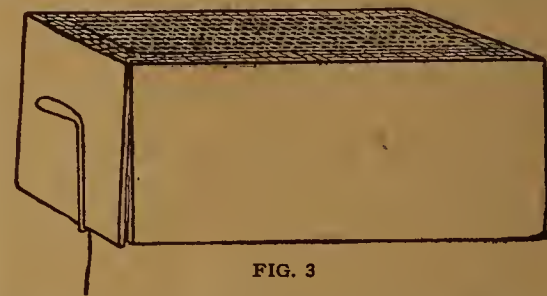


FIG. 3

you should be sure to take off a piece of the main root from which they come. If they are broken-off at the main root they will seldom live.—The Russian mulberry makes very good feed for robins in strawberry and cherry time, and I think most fruit-growers would profit by having some of them around for this special purpose. I do not know whether the robins would prefer the mulberry to sweet cherries, but think they do in preference to the sour cherries.—I am not sufficiently familiar with the Koonce pear to state whether it would stand frost better than the Wilder Early, but my impression is that it is hardier.

THE FIRE-BLIGHT

The fire-blight, while one of the most serious diseases of the pear, is much less injurious to the apple, although even here it is oftentimes of very serious importance, frequently causing dead spots on the trunks of the trees and blight to portions of the succulent branches and twigs.

Upon the twigs its presence may be recognized by the blackening of the bark and the wilting of the leaves as though stricken by fire. In the winter the diseased twigs are rendered very conspicuous by the retention of the withered leaves long after the healthy leaves have fallen. Very great damage also often occurs to the blossoms.

The disease is caused by a germ belonging to the great group of bacteria. These germs are extremely small, and multiply with very great rapidity. If one needs proof that this is a germ disease, he may examine the diseased twigs under a microscope, and see the germs for himself. No microscope is needed, however, to prove that the disease is contagious, for if one but makes an incision in the bark of the healthy tree, and transfers to this incision a small portion of the diseased bark from a blighted twig, he will find that the disease can be readily communicated from one twig to another. Under ordinary conditions the disease is spread largely by insects, which visit the blighted twigs for the sweetish liquid found on the bark. The insects then fly to another twig or blossom, bearing with them the germs.

TREATMENT.—The remedy consists in removing and burning all of the diseased twigs. In doing this, great care should be taken to cut low enough to insure the removal of all germs. The limit of the diseased portion can usually be told by the blackening of the bark, but it is usually best to cut a full foot below the diseased part, to avoid all possibility of leaving germs behind. It is also well to dip the knife in a solution of carbolic acid each time, before cutting into the new twigs, otherwise perchance germs may be left on the knife to be transferred with the next cutting to the new twig. Dipping the knife in carbolic acid precludes any such possibility.

The best time to trim for the fire-blight is in the early spring, when the new wood is succulent and green. At that time the leaves and young shoots affected by the disease may be readily recognized. Careful and thorough trimming during the early spring and summer will prevent the greater part of the blight, and casual observation through the remainder of the year will hold the disease in check. In cases where large branches are removed and much surface exposed, the wound should be sealed either with a grafting-wax or with oil shellac, to which is added a little flowers of sulphur and a few drops of carbolic acid. This mixture may be applied with a paint-brush.

It is a matter of common observation that trees in rich soil, which grow too rapidly, are more often affected by the fire-blight. This is due to the fact that in such conditions the twig is more succulent, and hence less resistant to invasion by the germ. The fire-blight also affects the pear, hawthorn and service-berry, and these must all receive attention in order to eradicate the pest.—From Bulletin No. 183 of the North Carolina Agricultural Experiment Station.



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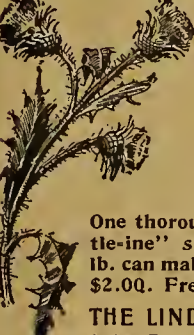
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Poultry-Raising

By P. H. JACOBS

DRY-PICKING AND PRICES

AS THE birds sent to market should be dry-picked if killed, and not scalded, it entails labor and expense to prepare the carcasses so as to have them free of pin-feathers and make an attractive display. The disgust of such jobs will remain until practice enables the operator to perform the work quickly. But it pays to dress the fowls, for when the prices of live fowls are from fifteen to twenty cents a pound, the dressed fowls usually bring from twenty to twenty-five cents, or from five to ten cents more, according to quality. Five cents a pound may seem but a small difference, but when a fowl weighs three or four pounds it adds fifteen or twenty cents to the price. Expert pickers will dress a fowl for five cents; but admitting that it may cost ten cents a fowl, it leaves a profit. Looking at it in another light, it may be added that when there are a number of persons in the family the item of picking becomes a large one if there are many fowls, and it should be saved.

ECONOMY AND BREEDS

The fact that a small hen will lay as many eggs in a year as a large one is an advantage to those who wish to keep as many fowls as possible in a poultry-house. The FARM AND FIRESIDE has never advocated crowding, advising that more eggs will be secured from a flock with plenty of room in the poultry-house than when the flock consists of more than the average number of members. But so far as room on the roosts is concerned, it is possible to keep three Leghorn hens on the same space that would be occupied by two Brahmas. The next point, however, is whether the farmer would prefer the Leghorns. Leghorns grow rapidly, are equal to any of the breeds for laying, are active foragers, and pay well in proportion to cost, but there are some who believe that the Brahma can endure severe winters better than the Leghorn, and that it is more easily kept on limited areas; hence, the keeping of a certain number of fowls on a given area, or in a poultry-house of limited capacity, should be governed by the climate and the objects in view.

HINTS TO INQUIRERS

The FARM AND FIRESIDE readers do not fail to take advantage of the opportunity to make inquiries in this department, and many of the articles given in each issue are to a great extent replies to such inquiries, while more brief re-

DIVERSITY OF PRODUCTS

Beginners with poultry on farms that are intended for a somewhat extensive system of cultivation, and whose capital is limited, should endeavor to produce early and late crops, so as to have cash coming in all the time, if possible. One of the essentials for quick returns is poultry. With good management the hens should lay every day during the greater portion of the year. One or two good cows will also be found serviceable, as milk, butter and eggs are cash at all seasons. Small fruits, such as strawberries, currants, gooseberries, raspberries and blackberries, soon give returns, but grapes and orchard fruits require more time. On a small farm it will not pay to depend upon the cereal crops. Stock, fruit and vegetables give better profits, and bring in cash long before the harvest comes for corn. There is nothing, however, that will give larger and quicker profits in proportion to capital invested than fowls, and as they multiply rapidly the number can be largely increased every year. The fowls will also consume much waste material.

NEXT YEAR'S LAYERS

Select now the pullets for winter layers. If there are a great many pullets that were hatched out, go into the poultry-house and select the largest and earliest hatched. Do not be tempted to keep many because they are beautiful, if they are small, as such pullets will not be of sufficient age to begin laying before cold weather sets in. As all fowls, old and young, are subject to the conditions of heat and cold, much labor and expense can be saved by retaining only those that come into full plumage and reach the adult stage before winter. If a pullet begins to lay before winter, she will then probably lay right on through the winter; but should she not begin in the fall, she will probably defer such work until early in the spring. Use heroic and prompt measures, by culling out the flock and getting rid of every pullet that has not reached a stage of growth that may enable it to give a profit. There is no sentiment in the keeping of fowls. The keeping of poultry should be a business matter.

INQUIRIES ANSWERED

DOUBLE-YOLK EGGS.—J. R. M., Batavia, Ill., states that "his fowls lay large eggs, some of the eggs containing double yolks; he also asks if such laying is peculiar to any breed." When soft-shell



A MODEL CHICKEN-COOP

plies are given direct, using the initials of the inquirers. It is impossible to give satisfactory answers to some, for the reason that the inquirer omits all details of management on his part. When a reader states that his fowls are droopy, their combs are dark, and that they refuse food, following the statement with "please give cause and remedy," he imposes a difficult task, as there are a great many causes, to discover which and suggest a remedy necessitate that the inquirer mention how he provided for his flock in the way of shelter, how often and how much he feeds, the kind of food, and how many fowls are under one roof. Lameness may result from high roosts, indigestion from overfeeding, and above all, in the summer season lice are at the foundation of two thirds of the troubles with adult fowls and chicks. The FARM AND FIRESIDE cordially invites all to ask for information, however, but requests details of management.

eggs, abnormally large eggs or double-yolk eggs are laid, the cause is due to overfeeding and excessively fat condition of the hens.

VARIETIES OF LEGHORNS.—G. T. S., Macon, Ga., wishes to know "which of the varieties of Leghorns should be preferred as being superior to the others." The several varieties of Leghorns differ only in color, except that there are also rose-comb varieties, which (excepting shapes of the combs) are otherwise the same as the single-comb varieties.

APOPLEXY.—J. B. L., Steelton, Pa., writes that "his flock is apparently free from disease, but that on going into his poultry-house some mornings he has found now and then a fowl dead under the roost; he also asks the cause." The correspondent gives no information as to how he manages his flock, but the cause of death is no doubt due to apoplexy, the fowls being fed too much grain at this season and are in a very fat condition.

THE ROOT OF THE MATTER

He Cured Himself of Serious Stomach Trouble by Getting Down to First Principles

A man of large affairs in one of our prominent eastern cities, by too close attention to business, too little exercise and too many club dinners, finally began to pay Nature's tax, levied in the form of chronic stomach trouble; the failure of his digestion brought about a nervous irritability, making it impossible to apply himself to his daily business, and finally deranging the kidneys and heart.

In his own words he says: "I consulted one physician after another, and each one seemed to understand my case, but all the same they each failed to bring about the return of my former digestion, appetite and vigor. For two years I went from pillar to post, from one sanitarium to another, I gave up smoking, I quit coffee, and even renounced my daily glass or two of beer, but without any marked improvement.

"Friends had often advised me to try a well-known proprietary medicine, Stuart's Dyspepsia Tablets, and I had often perused the newspaper advertisements of the remedy, but never took any stock in advertised medicines nor could believe a fifty-cent patent medicine would touch my case.

"To make a long story short, I finally bought a couple of packages at the nearest drug-store, and took two or three tablets after each meal, and occasionally a tablet between meals, when I felt any feeling of nausea or discomfort.

"I was surprised at the end of the first week to note a marked improvement in my appetite and general health, and before the two packages were gone I was certain that Stuart's Dyspepsia Tablets was going to cure completely, and they did not disappoint me. I can eat and sleep, and enjoy my coffee and cigar, and no one would suppose I had ever known the horrors of dyspepsia.

"Out of friendly curiosity I wrote to the proprietors of the remedy, asking for information as to what the tablets contained, and they replied that the principal ingredients were aseptic pepsin (government test), malt diastase and other natural digestives, which digest food regardless of the condition of the stomach."

The root of the matter is this, the digestive elements contained in Stuart's Dyspepsia Tablets will digest the food, give the overworked stomach a chance to recuperate, and the nerves and whole system receive the nourishment which can only come from food. Stimulants and nerve tonics never give real strength; they give a fictitious strength invariably followed by reaction. Every drop of blood, every nerve and tissue, is manufactured from our daily food, and if you can insure its prompt action and complete digestion by the regular use of so good and wholesome a remedy as Stuart's Dyspepsia Tablets, you will have no need of nerve tonics and sanitariums.

Although Stuart's Dyspepsia Tablets have been in the market only a few years, yet probably every druggist in the United States, Canada and Great Britain now sells them, and considers them the most popular and successful of any preparation for stomach trouble.



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make the work easier for both the man and team. The tires being wide they do not cut into the ground; the labor of loading is reduced many times, because of the short lift. They are equipped with our famous Electric Steel Wheels, either straight or stagger spokes. Wheels any height from 24 to 60 inches. White hickory axles, steel hounds. Guaranteed to carry 4000 lbs. Why not get started right by putting in one of these wagons. We make our steel wheels to fit any wagon. Write for the catalog. It is free.

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or other real estate, no matter where it is or what it is worth. Send description, state price, and learn my wonderfully successful plan. W. M. OSTRANDER, 210 North American Building, Philadelphia

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Nothing equals green cut bone for hens. Any one can cut it with

Mann's Latest Model Bone Cutter.

Open hopper. Automatic feed. 10 Days' Free Trial. No pay until you're satisfied. If you don't like it, return at our expense. Isn't this better for you than to pay for a machine you never tried? Cut free.

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and girls in every city and town, who are bright and energetic, and who want to make some money for themselves, or who would like to have a steady income. It is the most pleasant work possible, and will bring you in contact with the finest people. The work can be done after school. Write us at once. Address Circulation Department, WOMAN'S HOME COMPANION, Springfield, Ohio

WANTED One good salesman. Excellent position. First-class line of tobaccos and cigars. Apply at once to I. C. MITCHELL, Mgr., Bedford City, Va.

Live Stock and Dairy

FINISHING SHEEP ON THE FARM

IT HAS been my misfortune to be located on a small farm, or rather located in Brookings, near a small farm, on which I considered it impracticable to raise and breed sheep; therefore, I have gone into the business just as far as my surroundings would permit, and for the past ten years have been feeding sheep and lambs on a small scale, feeding from three hundred to three thousand head.

Having no trees or grove shelter, and concluding that good shelter was necessary to obtain the best and most satisfactory results, I began to construct sheds and hay-barns, with good shingle roofs; and if it has not paid from the money point of view, it certainly has paid in satisfaction, for I can conceive of no prettier sight than that of a thousand nice lambs ranged up to their racks, eating hay inside a well-ventilated shelter, while outside the mercury is away below zero, and the wind and snow are blowing at the rate of sixty miles an hour.

There was a time when a few keen business men made fortunes fattening lambs and sheep at St. Paul and other places where screenings could be had almost for the hauling; but now the proposition is different, as screenings have a bad habit of soaring away up in the clouds, selling in St. Paul at from seventeen to twenty dollars a ton, and hard to get at that, so that of late the commercial feeder has been a gambler as well as a feeder, and about as many fortunes have been lost as have been made by the big concerns.

After studying the proposition for years I have about come to the conclusion that the farmer of North Dakota and South Dakota can feed sheep, and especially lambs, and make good money at it, while the big fellow will go to the wall.

I find that North Dakota and South Dakota are eminently adapted to the growth of rape, especially in our grain-fields. In Wisconsin, Iowa and the East their growing seasons are so wet that rape where sown with the grain crop grows so rank that it often ruins the grain crop, while here, the season being drier, the rape gets only stubble-high at harvest-time, and as soon as the grain is harvested the rape makes a wonderful growth. I remember one fall I turned thirteen hundred lambs into a fifteen-acre field of rape, and the rape was so high that one could not see a lamb after they had gone a few rods into the field. I harvested twenty bushels of wheat an acre off the fifteen acres, but the rape which grew up after harvest brought me more dollars than the wheat crop.

I am sure that any farmer who owns one hundred and sixty acres of land can find it more profitable than any other branch of his business to feed from one to three cars of lambs every fall. I would not regard growing rape for fall-feeding lambs as a sure thing without the aid of manure, for I find that one acre of well-manured land on my farm produces as much rape as ten acres not manured. This was very plainly exemplified on my farm last year, there being in my barley-field a strip of about three acres on which no manure had ever been hauled, while the balance of the field had recently been enriched with about thirty loads of sheep-manure to the acre. I sowed two pounds of rape-seed to the acre on this field, mixed in with the barley-seed, and sowed with a press-drill. The value of the manure was plainly seen in both crops, for one could stand with one foot on land where the barley yielded fifty bushels an acre, and with the other foot on land where the barley would not yield over fifteen bushels an acre; and the difference was even more plainly visible in the rape crop, for while on the unmanured land the rape scarcely appeared above the stubble, that on the manured land stood two to three feet high, with leaves four to six or eight inches broad—so large, in fact, that the lambs would not go into it, and I was obliged to mow several swaths back into the field before I could induce them to do so. Yes, Brother Sheepman, sow rape, and make a business of it every year. Shut your eyes in the spring, and buy rape-seed for every acre of small grain you grow, and in the meantime keep hauling out the manure.

Now I will give my experience for one fall in feeding six hundred lambs for an early market. I had previously sown fifty or sixty acres to rape in my wheat and barley fields. I harvested a fine crop of twenty-two and one half bushels of macaroni wheat an acre, and fifty bushels of barley an acre; and it was simply wonderful how that rape did grow after harvest. While at the fair here last fall, in September, I bought of Mr.



Hog health can be established and maintained at the highest standard by a moderate use of Dr. Hess Stock Food. The hog like all other animals requires a certain amount of food to keep it in normal condition, called the food of support, and it is the food eaten and assimilated beyond the food of support that yields the increase—the food of production. This is why Dr. Hess Stock Food pays. It improves the digestion and assimilation so that it requires less food of support and a greater quantity goes to produce profit. It conditions a hog as nothing else can; gives a sharp appetite, expels worms and affords the means of rapid and perfect digestion of all food eaten. This result is due to the action of scientific tonics and reconstructives selected by Dr. Hess (M. D., D. V. S.). Feed Dr. Hess Stock Food regularly as directed, disinfect the pens and feeding places with Instant Louse Killer, and we guarantee that your hogs will be free from disease.

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Dr. Hess Stock Food is sold on a written guarantee, 100 lbs. for \$5.00 (except in Canada and Pacific Slope); smaller quantities at slight advance. Fed in small dose.

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Instant Louse Killer Kills Lice

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This work was written by Dr. Hess (M. D., D. V. S.) and contains the latest treatment of diseases of stock and poultry known to the veterinary profession. It will be sent postage paid to any address if you write what stock you have (number of head of each kind); state what stock food you have fed, and mention this paper.

Prof. W. S. Goss, Dean of Talladega, Ala., College, says of it: "I think Dr. Hess' book a little gem. I shall keep it near for reference."

I CURE CATARACTS, GLAUCOMA, GRANULATED LIDS, ULCERS, SCUMS, WEAK EYES, FAILING VISION, and ALL EYE DISEASES at your home WITH MILD REMEDIES. W. O. COFFEE, M.D.

Dr. Coffee's 80-page Eye Book will be sent FREE to every reader of this paper afflicted with Eye Diseases. This book tells you how to prevent Old Sight; how to make weak eyes strong, so you can throw away your glasses; how to cure all Eye Diseases and restore perfect sight at your own home without visiting a doctor. It tells wonderful stories about the people who have been blind from five to twenty years being restored to sight.

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Henry C. Lamb, of Dennison, Iowa, was blind with cataract in right eye thirty years. Was cured with one month's treatment of Dr. Coffee's remedies.
Mrs. Annie E. Moore, of Stem, N. C., 38 years old, was cured of paresis of the optic nerve by one month's treatment.
Mr. Henry D. Voight, of Hamburg, Wis., son was blind with cataracts on his eyes, and was restored to sight with one month's treatment.
Henry Braun, of Hecker, Ill., says: "Your medicine worked like magic. My eyes are perfectly well. One month's treatment cured them."
E. D. Jones, of Moline, Kan., was blind from cataracts from injury, and was restored to perfect sight. Used one month's treatment.
H. W. Wynne, Crockett, Texas, says: "You cured my little girl of scum and inflammation of the eyes, and blindness. One month's treatment cured her."
James Troutman, of Reynoldsville, Mo., says: "My six-year-old child had scum on the eyes, wild hairs and inflammation and was nearly blind. One month's treatment cured her."
Miss Mary Etta Field, of Phillips, Ala., says: "My eyes were weak. Had constant headache and pains in them. One month's treatment cured them."

Dr. Coffee's Mild Medicines cure at Your Home

Cataracts, Scums and Inflammation, Glaucoma, Granulated Lids and Wild Hairs, all Ulcers and Inflammation, Paresis of the Optic Nerve, Weak and Congested Eyes.
Dr. Coffee's Book gives instructions on how to diet, how to take physical exercise, how to bathe properly, how to breathe properly and how to keep in perfect health.
It tells all about Dr. Coffee's Mild Absorption remedies and how 90,000 people have been restored to sight by using them.

O. G. Ranck, of Turney, Tenn., says: "My sight has not been so good in 25 years. Your medicine is the greatest discovery of the age." He is restored to perfect sight.
Mrs. Nancy J. Bogle, Rabke, Texas, says: "I thank God and Dr. Coffee. I was blind with cataracts and paralysis of the optic nerve. Doctors said I would never see again. \$5.00 worth of your home remedies restored my sight perfectly."
Mrs. H. K. Shuter, Bracondale, Ont., says: "My eyes are perfect. I can see better without my glasses than with them since using one month's treatment of your remedies which cost \$5.00."
Edwin Skillman, Centralia, Ill., says: "One month's treatment cured my eyes perfectly of granulated lids, tumors of the lids and inflammation. Accept my thanks."
James D. McIntosh, of Tallahassee, Fla., had cataracts and paresis of the optic nerve, says: "I can see better than I have for 25 years since using your Absorption Remedies."
Harry Burwell, of Barin, Wyo., says: "I can see as perfectly as I ever did in my life since using your Absorption Treatment one month."
J. M. Brewer, Dresden, Tenn., was blind from paralysis of the optic nerve. Doctors said he would have to stay blind rest of his life. Was restored to perfect sight by Dr. Coffee's Absorption Home Remedies.

Dr. Coffee's remedies cure all kinds of eye diseases and blindness. They can be used at home by any one who can read instructions, and they restore sight perfectly without visiting a doctor. Write to Dr. Coffee and tell him the condition of your eyes and he will send you his book and professional opinion absolutely free of charge and tell you how to cure yourself at home if you can be cured. If you cannot be, Dr. Coffee will tell you so frankly.

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WE ARE CONSTANTLY BUYING COMPLETE STOCKS OF GENERAL MERCHANDISE AT SHERIFFS' AND RECEIVERS' SALES

STEEL ROOFING Strictly new, perfect, Semi-Hardened Steel Sheets, two feet wide, six feet long. THE BEST ROOFING, SIDING OR CEILING you can use. We furnish nails free and paint roofing two sides. Comes either flat, corrugated or "V" crimped. Delivered free of all charges to all points in U. S. east of Mississippi River and north of Ohio River at \$2.25 PER SQUARE. PRICES TO OTHER POINTS ON APPLICATION. A square means 100 square feet.	PREPARED ROOFING FELTS We can save you money on your wants in this line. We offer you Two-Ply Tarred Roofing Felt, 105 square feet to the roll, complete with caps, nails and cement, per roll...\$1.15 Three-ply complete, per roll... 1.35 Vulcanite, the highest grade on the market, complete as above, price per roll.....\$1.50	Farm Forges, from \$6.35 up We bought several car-loads of new Portable Forges at a low price. We have also for sale horseshoes, horseshoe-nails, blacksmith tools of all kinds.	PIPE Good second-hand Wrought-Iron Steam, Gas or Water Pipe, in sizes from one half to twelve inches diameter. It is complete with threads and couplings. 1 inch, per foot.....\$ 1-4 cents 1 1/2 inch, per foot.....\$ 1-4 cents We handle all kinds of well casing. Write us your wants in the pipe line.
2-HORSE-POWER GASOLINE ENGINE, \$70 We have in stock 150 2-Horse-power absolutely new, modern type, guaranteed Engines. Our price with pumping-jack...\$75 Without pumping-jack..... 70 Also Machinery, such as SAW-MILLS, ENGINES, BOILERS, PUMPS, etc. Write for our list.	STEEL TUBULAR FENCE POSTS Absolutely indestructible. A permanent Fence Post suitable for fields, farms, pastures, etc. Made of a one-piece hollow tube. Costs no more than the ordinary cedar post. Write for descriptive circular.	LONG-DISTANCE TELEPHONE, \$5.00 Rebuilt, guaranteed condition, complete with batteries, and a perfect phone in every way. Costs twice as much ordinarily. We have other kinds of phones, and are sure we can save you money on your wants in this line.	BUILDING MATERIAL Lumber, Sash, Doors, Plumbing Material, Builders' Hardware, Nails, and in fact everything in the building line. We purchased all the famous Expositions of modern days. We can save you money on your wants in this line. Do not build until you send for our estimate.
THRESHER BELTS We purchased at Sheriff's sale a car-load of new, red canvas stitched, endless Belts. They are six inches wide, four ply. We offer them to you as follows: 150 feet, per belt.....\$20.00 140 feet, per belt..... 19.00 We also have some endless Rubber Belts.	GARDEN HOSE We will sell you fifty feet, three-fourth-inch new Rubber Garden Hose, complete with couplings and nozzle.....\$2.25 We have better grades also. Let us know your wants.	WIRE New two and four point Galvanized Barbed Wire. Per 100 lbs. Painted, per 100 lbs.....\$2.00 Smooth Galvanized Wire, galvanized, per 100 lbs.....\$1.40 12, 13 and 14, per 100 lbs. We have other kinds of wire.	PAINTS COLD-WATER OR READY-MIXED PAINTS We bought at Receiver's Sale from a leading paint house, a very large quantity of Cold-Water Paints and Ready-Mixed Paints. Equal in grade to any on the market. Here is a Genuine Paint Bargain. Before placing your order, write us for our special prices. You can surely save money without sacrificing quality.

Send for Free Catalogue No. 34 on all kinds of Merchandise, Machinery and Supplies. We purchased and dismantled The World's Fair—The Pan-American Exposition—The Trans-Mississippi Exposition—The Ferris Wheel, Etc.

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Write for new rates and special inducements provided by the WOMAN'S HOME COMPANION for the season now opening. They are unequalled. The WOMAN'S HOME COMPANION does not favor contingent methods of compensation, as rebates and prizes, because they nearly always cause disappointment. Instead, it pays agents

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Address WOMAN'S HOME COMPANION, Department of Agents, Springfield, Ohio

Milne, a gentleman living sixteen miles northeast of this place, a band of five hundred fine lambs, which weighed fifty-eight pounds each when I loaded them at Cavour. With these I put about one hundred more, and turned them into the fields about the twenty-fifth of September.

After a few days, when first turned out in the morning, a few of them would be seen nibbling at the rape, but after a little while they would start for a self-seeded rye-stubble adjoining the rape-field. I threatened to fence off the rye-field, for they had got it perfectly bare of stubble, and even the Russian thistles were all tramped out. But they kept spending a larger portion of their time in the rape each day, but never entirely abandoning the rye-stubble. I placed salt in convenient places, and water in troughs, so that the lambs could get both salt and water whenever they desired.

I usually find that my lambs are more or less infested with worms. For this, and as a general tonic, I always place before my lambs in convenient places a mixture as follows: To one barrel of fine salt I add twenty pounds of sulphur and five pounds of coppers, all finely ground and thoroughly mixed; this I distribute in troughs, and pour over all a little oil of tar. I found this an effectual preventive and treatment for worms, and I am indebted for this receipt to my genial friend Mr. John Weddel, of Arlington.

Another thing I find to be a good investment is dipping, it being my custom to dip everything when put on feed. I use any of the good commercial dips.

At the very outset I began feeding screenings, a very small quantity once a day, and that at night after they had filled up on green feed. I increased the grain feed a little each day, until at the end of six weeks they were eating about one pound a head each day. This I kept up until November 24th, when it froze so hard that it entirely annihilated my rape. I could have fed twelve hundred lambs on that rape as well as six hundred, as at least one half of the crop was untouched when the frost came. I find that rape grown on manured land withstands the frost better, for the reason that the stalks grow so large that common frosts do not reach the heart of the stalk, and until it does the rape will keep green.

When my rape was gone I put my lambs on full feed in troughs twice a day, feeding nothing but screenings for a week or so, when I put in self-feeders and let them have full swing. I made my first shipment about December 15th, and the second between Christmas and New-Year's, and the last about January 15th. They averaged in Chicago about ninety pounds a head, having made a gain of about thirty-two pounds a head in an average feeding-period of ninety days.

My cost of winter feeding without rape usually amounts to from one dollar and fifty cents to two dollars a head, but by feeding the grain with the rape the cost was reduced to below fifty cents a head. So you see just where you have the inside track on the big feeder. I would rather have the profit on forty acres of good rape when fed to lambs than the profit on the best one hundred and sixty acres of wheat grown in South Dakota. So, in my opinion, the sheep-feeder holds a better hand than the exclusive wheat farmer.

Now, I find that it is not all sunshine, this fattening business, and I often get the blues, and say this is my last winter, because of loss occasioned by dogs, or by allowing the lambs to feed on the rape when wet, the latter of course usually a result of inexperience or carelessness. I find it necessary to have a small pen inside my sheds—a sort of hospital where the sick and lame can be given better care, and kept away from the main flock.

In feeding for the spring market I usually run my feeders in the stubble-fields as long as possible, then put on a full feed of good hay, and enough grain to keep up a good growth until the middle of January or later, then decrease the hay and increase the grain until they are getting all the grain they will eat. The grain is fed in troughs twice a day. I continue this until about sixty days before marketing, when, if I am feeding screenings, I put in the self-feeder and give them full swing with very little hay, but plenty of pure water and salt always handy. About March 20th I aim to shear, and then feed four or five weeks longer, at the end of which time they are ready to top the market; and this is a very desirable thing to do, for there is sure to be a difference of fifty cents to one dollar a hundred in the price of the tops and the unfinished sheep. Thousands of lambs are sent to Chicago every day about half finished, and the owners do not know that they are only half fat. I do not feel that my stuff is finished as long as I can feel the backbone; but when

Live Stock and Dairy

that is gone, and all along the back feels nicely cushioned, I conclude it is time to go to market. Another thing I try to avoid is shipping some fat and some half fat in the same car. I find that a car-load will sell much higher if all are equally fat, and that it pays to hold the thinner ones back for a little longer feeding. I also find that it pays to feed thirty days after shearing, as after the wool is off the sheep seem to take a new lease of life, develop a huge appetite, and in two weeks will weigh more than when the fleece was on.

As to marketing there is not much to be said. If the stuff is properly finished, the marketing will take care of itself. Care should be taken not to load too heavily; about ten thousand pounds to the deck, where the wool is on, I find to be about the best weight, and that a double deck is much safer than a single deck to ship in. With too heavy loading one is sure to get a big shrinkage and loss by trampling.

I do not feed any grain for four or five hours before loading, for I find that loading on full stomachs causes more loss on the road than anything else. The sheep will get scared, proper digestion ceases, and more or less of the sheep will become paralyzed, or as they say, will break down.

I find it advantageous to stop just before getting to Chicago to feed and rest for a day or two. The run then is so short that the sheep, when the buyer comes to look at them, are lively on their feet, and have a good, plump body.

I ship to some firm in whom I have confidence, and get acquainted with their salesmen. I do not care for the acquaintance of the firm, but I do like to be on good terms with the sheep salesman, and when he makes a good sale for me I always compliment him, which fact seems to encourage him to do his best for me.—Frank Sherwin, before Sheep-Breeders' Meeting at Huron, S. D., June 23d.

CONTAGIOUS OPHTHALMIA

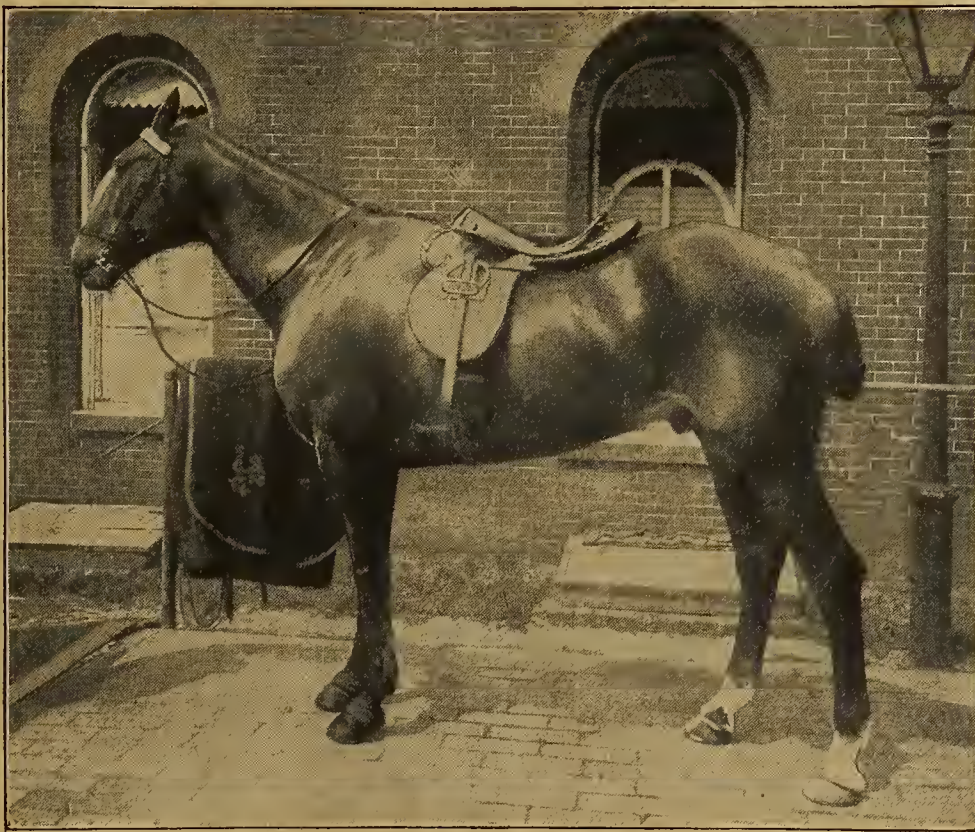
So-called "pink-eye"—properly termed "contagious ophthalmia"—has appeared among cattle in this and other states, and presents the following effects:

SYMPTOMS.—Adult, young cattle and calves first show swelling of the eyelids, accompanied by weeping. Redness of the

disease seems most liable to attack cattle grazing on such low, wet ground. Place the affected cattle in a darkened shed or stable. Give each adult animal a one-pound dose of epsom salts with one ounce of saltpeter and one ounce of ground ginger-root in two quarts of warm water as one dose, and follow with one tablespoonful of saltpeter twice daily in the drinking-water or soft food. Younger cattle should have the same medicine in smaller doses, according to age and size. While under treatment do not feed grain, but give soft and green food; allow all the cold water the animals will take. At the commencement of an attack puff between the eyelids by means of a clean insect-powder bellows a mixture of equal parts of finely powdered calomel and boracic acid, or cover the eyes with a soft cloth to be kept wet with a 1-2000 solution of bichloride of mercury (corrosive sublimate). This treatment may prove sufficient in a majority of cases, but should the disease persist and aggravate, substitute for the above lotion one consisting of a dram each of sulphate of zinc and fluid extract of belladonna-leaves with twenty drops of carbolic acid in one quart of clean soft water with which to keep the cloth over the eyes continually wet. When inflammation subsides, should the eye remain milky-appearing, paint once daily with a 1-1000 solution of bichloride of mercury, or three-per-cent solution of boracic acid. In bad cases which are tardy in responding to treatment give—except to pregnant cows—one dram of iodide of potash daily for adult animals, and from ten to twenty grains for calves and yearlings, continuing its use for one week. Ragged ulcers may with benefit be painted with a solution of three grains of nitrate of silver in one ounce of distilled water two or three times a week. Lastly, quarantine animals bought at stock-yards shipped in or from infected herds.—A. S. Alexander, Veterinarian at the Wisconsin Agricultural Experiment Station.

IMPROVING THE HERD

There are many dairymen who are breeders only to the extent of raising the heifer calves from their best cows for the replenishment or increase of their dairies.



BLENHEIM, PRESIDENT ROOSEVELT'S SADDLE-HORSE

membranes of eyelids and "haw" becomes apparent, creamy discharge follows, and in three or four days a clouded spot shows in the center of the eye, and gradually spreads until the "sight" of the eye becomes milk-colored. Changing from milk-color to pearl tint, the eye may become yellow, bulge, show bloodshot streaks, form an abscess, and burst, leaving a ragged ulcer, or commence to clear up and finally recover. Slight ulcers may heal by granulation, but extensive ruptures and ulcers often lead to loss of sight. Fever and some loss of appetite is present, especially in young cattle, for a week or more after the first attack, and dairy-cows may shrink in milk-production.

TREATMENT.—The disease being catching, and doubtless due to a germ which leads to its spread from one animal to another, affected cattle should be separated from the unaffected; the eyes of the latter should be washed once or twice a week

It is plain that the average dairyman should be a breeder to that extent at least, for those people who claim to be able to judge the capacity and usefulness of a cow by looking at and feeling her are not plentiful enough to establish a rule. The majority of dairymen are quite unable to thus judge cows, and it therefore follows that the herds of this majority of dairymen can best be improved by breeding, selection and rejection.

With the attention that beef-making has recently commanded, the strictly dairy breeds are not so actively in the market, and the dairymen anxious to improve their herds can buy male calves, or in many cases bulls ready for use, of any of the dairy breeds at figures any business dairyman can easily afford to pay.

Thoroughbred males being so cheap, there is no excuse for any dairyman using the grades and scrubs so often

[CONCLUDED ON PAGE 20]

The Books Are Free

Spavin
Ring Bone
Knee Sprung
Fistula
Poll Evil
Lump Jaw

If you have a horse that is lamed or blemished by any kind of a growth or enlargement, that is Knee Sprung or has Fistula, Poll Evil or Sweeny, or if there is a case of Lump Jaw among your cattle, write us at once. We will send you two big booklets. One tells you just how to cure these diseases and blemishes. The other proves that you can cure them, and we guarantee you success besides. Same methods employed by over 140,000 farmers and stock owners. Write for the books and tell us what kind of a case you have to treat.

FLEMING BROS., Chemists,
224 Stock Yards, Chicago, Ill.

SHARPLES TUBULAR FARM CREAM SEPARATORS



A lot of people make separators, and all are made with the bucket bowl—excepting one—

The Tubular.

There is but one Tubular type of separator and we make that. Our competitors cannot make it because our patents prevent. They have to make the old style bucket bowl or none at all. The Tubular is a great improvement, and it is just a question whether you want this improved machine or one of the old style bucket bowl machines. Write for free catalog 112. THE SHARPLES CO., P. M. SHARPLES, Chicago, Ill. West Chester, Pa.

Farm Wagon only \$21.95

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



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

KEEPS FRESH MEAT FRESH

Swan's Preserving Compound will keep any kind of fresh meat for one year or more, without ice or salt, as fresh as the day it was killed. Its use cannot be detected by sight, taste or smell. Flies and insects won't touch it, hottest weather won't affect it. All nutriment, flavor and color retained. Positively guaranteed not to contain poisonous drugs, acids or anything else that could injure the health. Full-size package, enough to preserve a ton of meat, will be sent prepaid to any part of the United States on receipt of \$2.00. Booklet free. Agents wanted.

"SPECIAL OFFER." To introduce Swan's Preserving Compound in your locality, we will, for a limited time, send post-paid special trial package, enough to keep four hundred pounds of meat fresh, to any address on receipt of 50 cents. Make all remittances in postal or express money-order.

SWAN CHEMICAL CO.
210 Tuscola Street, Saginaw, Mich., U. S. A.



CASH

FOR YOUR FARM OR ANY REAL ESTATE.

No matter where located. Send description and lowest cash price. I succeed by giving personal attention. Interesting and valuable particulars FREE. Write today. Bank references.

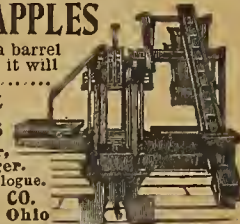
WILLIAM T. BROWN, 111 Brown Law Bld'g, Lancaster, Pa.

HOW MANY APPLES

does it take to make a barrel of Cider? No matter; it will take less if you use a.....

HYDRAULIC CIDER PRESS

and the cider will be better, purer and will keep longer. Don't buy until you get our Catalogue. HYDRAULIC PRESS MFG. CO. 6 Main Street, Mt. Gilead, Ohio



Get All The Cream

quicker than by any other method by using Superior Cream Extractor. (Does not mix water with milk.) Complete separation in an hour. Thousands in practical use. Write for catalogue. Superior Fence Machine Co., 190 Grand River Av. Detroit, Mich.



HEAVES CAN BE CURED

We have a guarantee cure for Heaves, Coughs and Colds. Guaranteed to cure or money refunded. One package by mail, 60c. 12 pkgs. by ex. with written guarantee to cure, \$5. WILBUR STOCK FOOD CO., 72 2d St., Milwaukee, Wis.

ABORTION Retention of Placenta and Failure to Breed

Kellogg's Condition Powder is a positive cure for these diseases. Write for circular. Address H. W. KELLOGG CO., St. Paul, Minn.

If afflicted with weak eyes, use Thompson's Eye Water

NEW PREMIUMS

Boys' and Girls' New Plan

Do You Want to Get These Premiums Free

Send us your name and address on a postal-card to-day, and ask for the number of coupon-receipts required to get the premium, and we will send you by return mail complete outfit free. Sell the coupons at 35 cents each, send us the money, together with the names and addresses of the persons who bought the coupons from you, and we will forward the premium. Full instructions sent with your outfit, so you can't make a mistake. If you can't sell all the coupons, or enough to get the premium, we pay you cash for what you do sell. That's fair. Write to-day.

Daisy Printing-Press

A COMPLETE OUTFIT

This is one of the most useful and interesting and practicable premiums for boys that we have ever offered. Any boy can learn to set type and print on this press. It is a source of pleasure as well as being instructive and useful. It comprises a printing-press, roller, box of printers' ink, and one box each of gold and silver bronze for fancy work, font of type, including quads, spaces and periods, pack of plain cards to print on and one pack of floral cards, type, tweezers and bronze-cotton. Full directions with each outfit, and securely packed in a nice wooden box, with sliding cover. Order as No. 497.



This Complete Printing-Press given free and sent post-paid for selling only SEVEN coupons at 35 cents each.

New Chain-Knife

YOU CAN'T LOSE IT



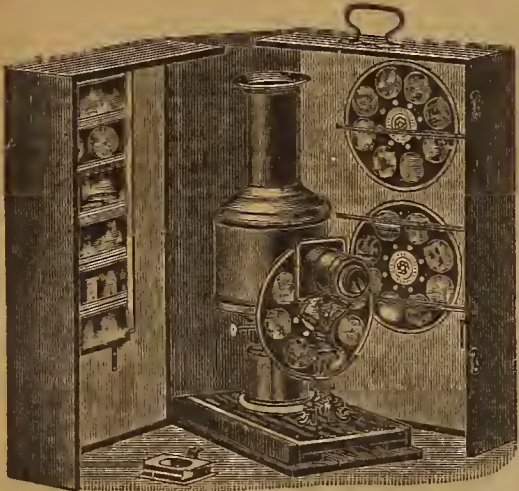
This is no cheap knife, but one that is guaranteed by the manufacturer to be as represented in every particular. Good steel, finely tempered blades, good solid handles nicely trimmed. THE CHAIN is finely polished, and has twisted links. It fastens to the belt or suspenders, and the knife can't be lost. It is the knife for boys, and the latest thing out. Order as No. 495.

This elegant Chain-Knife given free and sent post-paid for selling only THREE coupons at 35 cents each.

New Picture-Machine

FUN, ENTERTAINMENT, DELIGHT FOR ALL

Sixty Pictures FREE



This magic-lantern outfit has been proved to be one of the most popular premiums ever offered. This machine is 11 inches high, finished in black, blue and nickel, and fitted in a neat box with hinge cover, to which are fastened three round slides and six long slides, making in all about 60 different pictures that can be reproduced. Full directions for carefully operating machine. Sent by express at receiver's expense. Order as No. 494.

This fine Picture-Machine given free for selling EIGHT coupons at 35 cents each.

The Laughing-Camera

THE BEST NOVELTY EVER INVENTED

SEE THE PASSING SHOW



Your friends grotesquely photographed; stout people look thin; thin people look stout. For years the funniest attraction in every museum the world over have been the convex mirrors. Everybody has found amusement in contemplating his own personality in a long-drawn-out or a short-and-fat aspect.

The Laughing-Camera furnishes all this amusement, and more! By getting a focus on passing pedestrians, horses, wagons, cars, etc., the most grotesque and ludicrous pictures are witnessed. The passer-by takes on the swing and stride of a daddy-long-legs, horses look like giraffes, and altogether there is more genuine hearty fun crowded into the four cubic inches of this little instrument than could be imagined. All grow fat from laughter. Each packed in a neat box. Order as No. 493.

We will send the Laughing-Camera, and the FARM AND FIRESIDE one year, post-paid, for only 40 cents.

The Laughing-Camera given free and sent post-paid to a Club-Raiser for only ONE NEW yearly subscription to the FARM AND FIRESIDE at the clubbing price of 35 cents. (Don't ask for coupon.)

Address FARM AND FIRESIDE, Springfield, Ohio

The Grange

By MRS. MARY E. LEE

GRANGE PROGRAMS

WHILE the general excellence of grange programs cannot be overlooked, yet a comparison of the subjects discussed year after year indicate that they do not cover as wide a range as would seem beneficial. There are topics that must ever be of importance to farmers, and that will find excuse for yearly repetition. But to confine one's self to these alone, which consist mostly of "shop talk," would be like confining one's self to potatoes and cheese, while Nature and Art vied to produce attractive foods and viands. The marvelous world-changes that are daily being brought about need a deeper insight than the modern press can give. To gain a just estimate of the Kishineff affair, for instance, one must go to history and general literature to find the history of the Jews, their hopes, achievements, failings, temperaments and environments. This would naturally lead to a study of the religions of the East and the conditions that fostered the growth of this sect. Hosmer, Scott, D'Israeli, Zangwill, Shakespeare, Wallace, and a dozen others, each have contributed valuable data in enticing form. So we might take up the other public questions that are pushing themselves for solution. No one knows better than the farmer the power of the public opinion of his class, and no one is more desirous that this opinion shall be just, merciful and enlightened than he. Would it not seem advisable, therefore, to include in the grange program topics of a public and cultural nature? Nor would we confine the work to one subject for a long series of meetings. Let there be variety. Of general interest would be "The Influence of Mohammedanism on Civilization;" "Confucius—the Influence of His Philosophy on Modern Civilization;" "Labor Unions, and Their Influence on Financial Conditions;" "What of the Negro?" "Anglo-Saxon Supremacy;" "Russian Supremacy;" "The Jew in History;" "Is Statesmanship Declining?" "Tariff for Protection or Revenue Only?" "Which is of Most Benefit to Society—Scarcity or Abundance?" "Pope Leo—His Worth to the World;" "Government by Injunction," and other subjects of vital and general interest that stretches to infinity. Why crowd our voyage into a tea-cup when the whole world is open?

MOB VIOLENCE

Our people are shocked by the recent outbreaks of mob violence in different sections of our country. No section can point the finger of shame at the other. All must bear alike the ignominy. That the best part of our people condone the acts of an infuriated mob is false, and the best people are in the great majority. One cause of this lawlessness is found in the weakened respect for the court. The law's delay by reason of technicalities, the weakness of the jury system, the sometimes culpability of the court—all contribute to an already infuriated people. That all these counts are sometimes too true must be admitted, but is no palliative for the offense of taking the law out of its proper hands. Every violation of the law of the land lends precedent for other infractions. It coarsens and brutalizes the sensibilities of all connected therewith, and weakens respect for law and order. No matter how great the provocation, the more reason for upholding the majesty of the law and insisting on its being carried out to the letter with precision and expediency. While the crime which is usually the excuse for such lawlessness is atrocious, let not the people stain their hands with another brutalizing crime. That many take part renders the act no less a murder. An enlightened public opinion united with a firm front that brooks no dallying or subterfuge in the court will do far more to correct the crimes for which mob violence is meted out than the most horrible murder of the victim would do. Respect law and order.

PROCESS BUTTER ON THE FARM

A bulletin of the Utah Experiment Station warns farmers against the fraud of adding chemicals to their milk that converts the casein into a substance resembling butter. The result is a poor imitation of genuine butter, which injures the butter industry. Time alone, says the bulletin, can restore what the farmer will lose.

The organized farmers of America fought a long and bitter fight to secure a law against the fraudulent manufacture and sale of a spurious dairy product. Let not a farmer bring reproach by imitating the methods he himself condemns.

It will work incalculable injury to the individual farmer, and agriculture in general. It will cast reproach not only on pure dairy products, but on every article sold from the farms. There is a well-grounded preference among consumers for articles direct from the farm without the mediation of a middleman. It is to the interest of the farmer to cultivate that preference. The best argument he can offer is a strictly honest product of the best possible quality, put up in the most attractive manner. Let every farmer keep before him a high ideal, and live up to it. Let him treat with contumely any one who would degrade this ideal. It can bring only evil consequences. Honesty must forever be the best policy.

THE JOY OF SERVICE

I listened to an impressive sermon to-day, in which the minister made use of the following fable: In one of the legends handed down from a remote antiquity, the birds, so the fable runs, were created without wings. One day, as they were engaged in their various duties, a spirit commanded them to take up yet other burdens. They did so with quaking hearts, when lo, the grievous burdens became pinions upon which they were borne to the regions of the blest. The inference was that the burdens and crosses of life assumed cheerfully become pinions of grace to waft us to higher, holier planes.

The fable covers a truth ever new and sublime. It is the duty or work delayed that bears the most forbidding aspect. Take it up, and it yields smiles and strength for the day. Work done breeds power and strength for greater effort.

To secure the apples of the Hesperides, Hercules must first slay the Nemean lion, slaughter the hydra, cleanse Augeas' stables and subdue the oxen of Geryon. Every great and noble deed done for humanity was but the sum of daily toil, daily victory. Approach thy task, then, no matter how mean and humble, how lowly and obscure, with faith and serenity, and thou shalt find strength and gladness and power.

A CORRECTION

J. E. W., Happy Valley, Canada, calls attention to an unfortunate error in the issue of July 15th. The quotation from Coleridge's "Ancient Mariner" was credited to Bryant. The mistake came about in this way: Bryant's "Thanatopsis" and the verse from Coleridge were quoted to a friend needing such stimulus and inspiration. Thinking some of our readers might also get the help we always do from this choice gem, we passed it on, but inadvertently wrote Bryant instead of Coleridge. The lines correctly quoted are, as all our readers know, as follows:

He prayeth best who loveth best
All things, both great and small;
For the dear God who loveth us,
He made and loveth all.

THE FARMER AND IMPROVEMENTS

There seems to be doubt among some of our friends whether the farmer can endure the new life that is dawning upon him. They fear that the trolley, rural-mail delivery and telephones will lure him from the path of rectitude they assume to be peculiarly the farmer's own. They express fear that the homely virtues of honesty, faith, simplicity, thrift and economy must succumb to a broader, fuller life. Don't worry. The virtues will live and grow brighter with every advancement that makes farm life easier. Morality and virtue that are firmly interwoven in his character will not easily be unraveled. We do not love or trust less the friend who has had superior advantages, but rejoice with him in his heritage, and hope for the same blessing to come to every one.

THE OBSERVATORY

Education is not creative. It can only develop and ennoble the latent forces.

With every revival of learning there is a reformation in moral and religious ideas and practices, a less bigoted and intolerant spirit. We are now in the midst of such a revival.

Help the boy and girl eager for a college education to help themselves, but don't mortgage the farm to pay expenses. There are enough opportunities for paying one's own way for every energetic lad or lass possessed of will, courage, perseverance and common sense. The education earned by hard work and self-denial is worth more than one secured through the labor and self-denial of others.

INHERITANCE

J. F. B., Michigan, wants to know: "If a man dies in Michigan, leaving a widow and no children and no father or mother, does the widow get all his property, or do the brothers and sisters get a share?"

It seems that under the laws of Michigan one half of the estate would go to the widow. There seems to be some limitation, and you had better consult some attorney of your city as to the rights of the widow.

DUN ON A POSTAL-CARD, ETC.

P. S. S., Ohio, wants to know: "Is it a penitentiary crime to send a dun on a postal-card?—Does a postal-card dun exempt the debtor of the charge against him?—If A. breeds a cow for B., and B. fails to get a calf, does he have to pay A. for the service done?"

No.—No.—It would depend upon the contract or custom that prevails in the community where it occurs.

CHILD'S SHARE

T. B., Missouri, wishes to know: "If a man dies, leaving children, can his parents take any part of his property if there is only the home place? If the deed to said place is made to read 'Mr. and Mrs.'—that is, made jointly—can parents take any part?"

The children of a deceased person always inherit all of his property before the parents of such deceased person can get any share. Whether the deed reads "Mr." or "Mrs." makes no difference.

STOPPING SUBSCRIPTION

W. R. W., New York, says: "Some time ago I ordered a sample copy of a paper from Missouri. They continued to send me the paper. I ordered it stopped, and they have placed the account in the hands of a collection-agency for collection. Can they collect?"

I think they are trying to bluff you. I would not pay the bill. Of course, if you have been receiving the paper, it would devolve upon you to prove that you ordered the publisher to stop sending it.

STOCKHOLDER'S LIABILITY

Bessie, Washington, asks: "Will you kindly tell me if in taking shares in any undertaking you become liable for more than the money paid for shares?"

In some few of the states there is a constitutional provision that the holders of stock in a corporation shall be liable for its debts to an amount equal to the value of the stock—that is, if a party holds stock at par value of one hundred dollars, he is liable for debts to the extent of one hundred dollars. Generally speaking, the owner of stock is not liable for any of its debts if his stock is paid for. In partnerships a partner is liable for all the debts of the concern.

TRACTION-LINES

M. E. L., New York, says: "A trolley-road has been built through this town, and the company is getting ready to put

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

the road in operation. Said trolley-road is located at one side of the public highway. Has the company, having all lawful rights from town and state, a right to cut limbs from shade-trees along the highway to clear their wires without compensation to the owners of the abutting property? This they are doing, although in many instances it has been forbidden."

It is now generally accepted as settled by the courts that a traction-road has no right to locate its railway in a highway without procuring the consent of the adjoining landowners, and they certainly have no right to cut limbs from shade-trees to clear their wires without compensation to abutting proprietors.

INHERITANCE

E. E. D., Illinois, asks: "A man and wife own one hundred and twenty acres of land, forty acres of it being in the wife's name and the rest in the husband's name. They have one child. If the wife should die, what would the husband hold? If the husband should die, what would his wife hold, no will being made? What interest would either hold in the personal property?"

By the laws of Illinois the wife or husband has a dower interest in the real estate of a deceased husband or wife; therefore, if the wife should die the husband would own his eighty acres in fee and a life estate in one third of the forty acres, or if the husband should die the wife would own her forty acres in fee and a dower, or life estate, in one third of the eighty acres. A number of articles are allowed to the widow. There seems to be some specified articles that are allowed to either the husband or wife.

INHERITANCE—HALF-SISTER

M. E. K., New York, states: "I am a widow. When I married my husband he was a widower with one little girl six years old. A year after our marriage another little girl was born to us. A little over a year later my husband died, leaving no will. I was obliged to administer on the place. I have raised and educated both girls alike. Now I am getting old, and I wish to know how the property, real and personal, should be divided between the girls after my death. I wish to be fair to both. The property is small, consisting of house and barn and one acre of land. When I married my husband there was a mortgage of six hundred dollars on the place. The mortgage has been paid since, and I have worked hard to educate my girls and keep the home for them and myself."

The girls will inherit the land equally, as coming through their father. If the land was in your name, then your daughter would get all of it. An equal division would seem to be a fair one.

DELIVERY OF DEED

F. A., Michigan, inquires: "Can a farmer sell land that has been deeded to him and his wife and their heirs, when there were deeds made out giving the land to their children and signed by him and wife before

her death, she knowing she was going to die, and wishing it to go to her children? He was to keep the deeds while he lived. Could he destroy those deeds, and sell the land legally?"

If the farmer owned the land, and held the same in his own name, he could deed it, notwithstanding that deeds were made during the lifetime of his wife, if such deeds were not delivered, and the inquirer seems to say they were not. In order for a deed to be valid, it must be delivered. It may be delivered in escrow—that is, to third parties to hold until a certain time—but the control of it must go to some person other than the maker.

INHERITANCE

J. A. B., Virginia, asks: "A woman marries a man possessed of property. She also has property when she marries him. They live together six years, and have no children. When he dies, having willed all his property to her, and the widow marries again, what share would the second husband have in the estate in case of the wife's death without offspring?"

One difficulty about answering the above question is that it does not designate whether the property is real or personal. Statutes of some states make a distinction between real estate which is acquired by purchase by the husband and real estate that the husband has inherited. If it was personal property, the wife received all of it from her first husband, and upon her death it would go to her second husband. As to the real estate, I am not so sure whether it would go to the second husband or not. Better consult a local attorney.

PERJURY

S. E. L., California, puts these queries: "A. brings suit against B., swearing that he takes water out of the Grand River. When he bears witness after taking oath, A. says that B. takes his water out of a tributary of the Grand River about two hundred yards from the Grand River, and that he saw his head-gate before he brought suit or swore that he took water out of the Grand. Has A. committed perjury in this act? B. takes his water out of a tributary, as A. swore to in the last instance? If so, how would B. proceed to put him through for perjury?—Can a wife's cattle be taken for her husband's debts, the cattle being in the wife's name and bought by the wife?"

In criminal law, matters are always strictly construed in favor of the criminal, and it is probable that a branch stream might be called a part of the whole stream, and it would not be perjury to swear that water had been taken from a tributary within a short distance of the main stream.—No, the wife's property cannot be taken for her husband's debts.

for every physician knows that nearly always there is a doubt which way the case will turn. Cheering encouragement has saved many a life by helping it to pass a crisis favorably when the actual truth might have killed the patient or reduced his rallying powers to the danger-point. In all affairs of life, cruel bluntness in stating cruel facts has caused untold misery and broken many friendships. Truth itself becomes a dangerous weapon in the hands of tactless persons.

CAMPHOR MEDICATION

Camphor is a poison, and yet it is largely used in alleviating pain and curing sores. It is a nervous irritant. If taken in small doses it acts like alcohol and opium. If taken in large quantities it excites the nervous system even to the extent of camphor spasms and death. Camphor also acts as an irritant on the mucous membrane of the stomach, leading to constipation and ulceration; on these accounts it should not be used without the advice of a physician. Families easily get into the habit of running to the camphor-bottle for every trifling ailment, and insidious maladies will break out whose origin is little suspected.

KILLING PEOPLE BY BRUTAL TRUTHS

Many people are killed by brutal truths. Some physicians are so conscientious (and so tactless) that they think they must tell patients the whole truth when they think they cannot recover, instead of giving them the benefit of the doubt—

The Family Physician

By ROBERT B. HOUSE, M.D.

DON'T PUSH THE HEART-ACTION

When exercise is cutting your wind, hold up, and time your pulse. If it is above ninety, then go slow. Folks will not thank you for killing yourself. Uphill wheel-riding is heart-knocking fun. Do not run until you must lie down and pant. If a man looks out for his heart, when he gets old his heart will be his best friend.

DEATH OF AN ANTI-VACCINATIONIST

Mr. Stevens, the late secretary of the Anti-vaccination League of Minneapolis, died in that city on April 15th of malignant smallpox. Mr. Stevens had been in the custom of denouncing vaccination on every possible occasion as a barbarous practice, without efficacy in preventing or staying the progress of smallpox.

THE CLIMATE OF SOUTH AFRICA

On account of the warm, dry atmosphere of the high ground in the Transvaal, the country in the neighborhood of Johannesburg is expected to become a health resort, especially for a certain class of phthisis cases. English people are already emigrating to South Africa on account of the benefits which they expect to derive from the climate.

A GOOD REPORT ON TUBERCULOSIS

The death-rate from tuberculosis in Massachusetts has declined from 42.7 for each ten thousand of the population in 1853 to 17.5 in 1901, a decrease of more than one half in forty-eight years. The deaths from this cause in 1901 were five

RHEUMATISM

(Chronic or Acute)

Relieved Free

Wonderful Discovery of Michigan Man Cures Without Medicine

Taking medicine is only the beginning of trouble. Don't do it. Nature provided millions of pores for the expulsion of impurities which cause rheumatism. You must make these pores do their work. Magic Foot Drafts open up and revitalize the largest pores in the body and stimulate the circulation and entire nervous system so prompt action. A pair of Drafts will be sent free on approval to anybody. If you are satisfied with the help they bring, send One Dollar. If not, keep your money. The risk is ours.



Magic Foot Drafts cured Mrs. Leah Brumbaugh, Postmistress of Coburg, Neb., in 1901, and there has been no return of pain.

They cured both Mr. and Mrs. Edward Lincoln, of Rochester, New York, over a year ago. No pain since.

They permanently cured A. J. Keenan, a New Orleans grocer.

They cured Calvin Hersome, of Boston, after being laid up seven months.

R. D. Cummings, of Fort Worth, writes: "I have never felt any rheumatic pains after I used Magic Foot Drafts last June (1902)."

Many thousands of others are rejoicing over comfort brought by Magic Foot Drafts. Sit down and write to-day for a pair of Drafts free on approval to MAGIC FOOT DRAFT CO., 950 Oliver Building, Jackson, Mich. They will cure you.

10 lbs. of soap for 10 cents

Better soap than you can buy at any price. You make it yourself in ten minutes, with the grease and fat from your kitchen and a can of

Banner Lye

sold at your grocer's for 10 cents.

No trouble; no boiling; no large kettles; no adulterated soap. Nothing but the purest soap—ten pounds of hard soap or twenty gallons of soft soap.

Banner Lye is also the best

Cleanser and Disinfectant



No well-regulated home is without it. You need it everywhere to protect against dirt and disease.

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NOVEL SOUVENIRS FOR COUNTRY GATHERINGS

A church social last fall in a flourishing county-seat a lady from the country was the guest of her sister, a prominent church-worker, and was charmed with the beautiful decorations and souvenirs which she saw there. Especially did her eyes study the scarlet berries that were pinned to the men's coats as they left the table, and the plummy blossoms that were pinned to the ladies' dresses.

"I think it must be lovely to be able to have socials like that," she remarked to her sister on the way home. "Those red berries looked very familiar, but I forgot my glasses, and didn't like to examine them too closely. What were they, Hattie?"

"Just common bitter-sweet," laughed her sister. "I should think it would look familiar, since I gathered it on your farm last fall, as well as the wild clematis pods the women wore. During the summer I put it up in the attic out of the dust, and last week on that misty day I had it out to get washed off, so we could use it to-night."

"When I go home I intend to make use of every growing thing," said the sister, emphatically, and she has kept her word. The church that once had bare walls now rejoices in a wealth of wild flowers, vines and grasses on every festive occasion, and the homes in that neighborhood are beginning to glow with the native blossoms in their season.

It is very easy to provide dainty and novel souvenirs for parties, picnics and socials if one only thinks so. Half the battle is won when the idea is thought out, for once you start to making them you simply can't lay down the fascinating things until all are done. Take the tiny rush baskets we have all woven in our childhood, for example. They can be filled with huge blackberries at a picnic, or tiny candies at a party, or popcorn for the children, or chestnuts or any of the delicious small fruits or nuts every one likes. When they are empty the girls use them for small trinkets or jewelry, while the men are apt to hang them on the wall to remember the good time they had.

The craze for Indian basketry has reached even the rural districts, and while many of the directions are complicated, I have seen very presentable baskets made by children, and a whole class of girls made raphia hats the past summer for best that were indeed beautiful. These little baskets cost more than the rush or burr ones of our childhood, to be sure, but they are more durable, also. Don't make the mistake of getting them too small. Let them be large enough to hold half a dozen handkerchiefs or a package of hair-pins, and they will be cherished for years by the happy owners.

Cardboard boxes have almost had their day, though they are very convenient for candies, small cakes and nuts when one is too busy to undertake the reed baskets. With a pair of sharp shears cut an accurate pattern, and then hold it securely on the cardboard while you cut around the edges with a sharp knife. Four or five may be cut out at once if carefully fastened down. Unless one has much patience it is well to stick to the simple square boxes tied at the corners with gay ribbons, for fancy ones require much time and skill. Cardboard varies in price, but usually costs a cent a sheet, and baby ribbon sells at the same price a yard, so the boxes are not expensive.

At a Christmas social tiny sprigs of evergreen were securely planted in penny pots and hung with bits of tinsel and strings of popcorn. These proved the most popular souvenirs ever given, and cost almost nothing outside of the pots, which were the very smallest to be purchased. The young ladies had great fun decorating these diminutive Christmas trees, and the tables looked lovely when all were in place.

Buckeye chains are very pretty and not much work if one can borrow a shoemaker's awl or sharp darning-needle with which to punch the holes. These should be strung on stout thread, and not pulled too green for fear of shriveling.

Autumn leaves on which are lettered the date of the party or the name of the persons who are to wear them make acceptable place-cards and decorate a white table beautifully. Take the biggest and brightest ones you can find, and with a toothpick letter them the day they are to be used. It is well to keep them in a book until just before they are to go on the table. Stick a pin through the stem of each, and place on the folded napkin.

At a Hallowe'en party small muskmelons and watermelons were carefully scooped out for Jack-o'-lanterns—one for each plate—and tiny candles inserted. There were Irishmen, Dutchmen, clowns and all sorts of people, and the only thing the guests regretted about these funny favors was that they were too perishable. One young man partly solved this problem by varnishing his sad-faced gentleman inside and out, and using him for a match-holder for many months.

Many a party has been a great success because of its mirth-provoking souvenirs, for nothing breaks the ice so quickly, and since they cost very little no gathering need be without them. Russel Conwell, the lecturer, used to say our acre of diamonds is the little patch of ground right around us, and more and more we are coming to see the truth of that wise saying.

Not by longing for the things we can't have, but by using the common, beautiful ones all about us, can we make our little gatherings as successful as the ones we read about in city papers. HILDA RICHMOND.

THE SILKWORM

China was the first country availing itself of the labors of the silkworm, and Aristotle was the first Greek author who mentions it. It was not until the fifteenth century that the manufacture of silk was established in England. The raising of silkworms in the United States has been attempted with success in Southern states, and especially in California. As the silkworms in Europe are affected by disease, immense quantities of eggs are sent from this country. Forty thousand eggs weigh about one ounce, and when hatched will produce about one hundred pounds of fresh cocoons.

Around the Fireside

A MOMENT OR SO

I would like to go back for a moment or so,
Back to the fancy-hung Long Ago—
To the old-fashioned house in the dusty lane,
And be for a moment a boy again.

I would like to go back where the fields are green,
And wander across to the old creek's flow—
I would like to stand in the joy serene
Of the shadowy peace of the Long Ago.

I would like just one glance at the eventide
Of the misty mornings with dew aglow
At the spot where the sparrows were wont to hide,
And the fields where the wild flowers used to grow.

I would like just one drink from the old-fashioned
well—
I would feel if I could the mystic spell
That ever clings 'round what we call Long Ago—
I would like to go back for a moment or so.
—Harry T. Fee, in *Overland Monthly*.

FIRESIDE CONVERSATIONS

It is very much to be doubted whether the devils of gossip and profitless conversation have a better opportunity to steal away the integrity of our thoughts than when we are seated cozily around the evening fireside, the work of the day done, and mind and body alike relaxed.

For Satan still will find some work
For idle minds to do,

is a legitimate rendering of the old saw. Perhaps more of Time's priceless gold slips through our fingers when we are enjoying these times of needed rest and social pleasantness than we shall ever dream. Women have been laughed at because they cannot knit without working, and seem to be slaves of the knitting and crochet needles and the modern Battenberg paraphernalia. But may not women have perceived how wanton was the waste of the hour's aimless chatting, and have determined to redeem a part of the time by the work of their nimble fingers? We are led to believe their much-assailed habit of industrious resting had something of this good motive in its beginnings.

The bright young daughter of some worthy farmer folk saw how these fireside opportunities were being unconsciously thrown away, only because, there not being a brilliant conversationalist among them, the "chat" of the evenings degenerated into mere gossip—not harmless, though there was no venom in it, but neither was there helpful purpose. The dear people simply talked over their neighbors—what they wore, what they ate, how much money they made, who they might marry, and other kindred familiar themes. But Lessie, the modern young woman, grew weary of this way of doing, and while she lay wakeful on her little white bed under the eaves of the dear old home, wondered how an unsuspected reform could be brought about. Then she began a deliberate campaign. Her next book from the circulating library—and she was careful not to "leave it around"—was a popular but standard treatise upon coal and coal-mines. One evening a few days after the entrance of the book into the house, when the family circle about the glowing anthracite fire was complete, this cunning girl stretched her hand out in the warmth, and said, quite naturally, "Well, blessings on the smut-faced miner who broke off this bushel of coal for us!"

Her brother laughed. "If I ever meet him, sis, I'll give him that blessing. Wish I could meet a real live one!" he added, with all the yearning of a lad's heart after the unknown and adventurous.

"Maybe you'll meet your Uncle Zed some day," put in the mother, with a sigh. "I heard he went to the mines in Pennsylvania."

Lessie groaned in silence. The talk would drift back to that old theme, and they would spend all evening talking over poor Uncle Zed's unfortunate love-affairs, about which they knew very little and gossiped a great deal. She made another attempt.

"Father, isn't there any coal in this part of the country?" she asked.

"Yes, I believe there is quite a vein of coal running through the southern counties," replied her father. "Why?"

"Well, I have been reading something about coal, and am so interested that if ever the chance offers I mean to visit a mine."

"What makes soft coal smoke so much?" put in the younger brother; and then came Lessie's chance.

Before the evening had closed they had found out how little they knew about this article of daily consumption, and had also found out that the encyclopedia which mother had bought with her turkey-money a year ago was a more interesting work of literature than they had yet suspected.

One evening was saved and—we must confess it—an hour of sleep lost; but the farmer said, as he wound up the grandfather clock, "We must have been having a good time or we'd have noticed it!"

Lessie had to be wary, and she was. She was successful, too, and before the summer had well set in, the fireside conversations of that one family were largely redeemed from aimless gossip, and Lessie, to say nothing of the others, was enriched in mind beyond even her dear expectations.

It pays to plan even for a fireside talk. Of course, the bare ribs of the plan must not appear, and if more than one is party to the arrangement it may be a failure. But if one in every household secretly determines that the number of idle words be lessened and exchanged for real conversation, the result will be of value unmeasured. ADA MELVILLE SHAW.

WHY WE SALT AND PEPPER FOOD

"Will you be so good, doctor, as to tell us why we use salt on our meat and other foods? Is it merely a matter of taste?"

The person addressed was a prominent physician. After studying the question for a moment, he replied, "Well, to begin with, there are two principal salts in our flesh and blood, and the supply has to be kept up. These are potassium salts and sodium salts. There is sufficient of the former in the food we consume, but of the latter there is not a full supply. It is therefore necessary that we should add to the sodium salts a quantity of ordinary table-salt, or chloride of sodium.

"An additional reason for eating ordinary table-salt is that the stomach requires a certain quantity of hydrochloric acid in order that the digestion may be aided, and also in order that many of the microbes we swallow may be killed.

"The acid is manufactured in the stomach by the combination of the chlorine of the salt and the hydrogen."

"Very good," responded his companion; "we have learned something beneficial, at any rate. Now pray inform us why we use pepper, mustard and other spices."

"We use those condiments because they have a tendency to arouse the glands of the stomach to their work. In this way they are made to produce an abundant supply of digestive juices. Pepper, mustard and other like spices stir up the liver, which is a very necessary function for people who of necessity or otherwise lead sedentary lives. The less craving one has for spices, the stronger are the digestive organs. When a person advances in years, however, it is always well to call in the aid of spices in the food eaten, whether or not they are craved by the stomach.

"Many persons use milk in their tea, but few of them know that it preserves the stomach, and prevents that organ from being converted into leather. Of course, it is an exaggeration to suppose that the stomach could actually be transformed into leather.

"Whenever tannic acid and albumen meet they fall desperately in love with each other, are wedded without bans, and live together forever after as tannate of albumen, or leather. Now, there is any quantity of tannic acid in tea, and the lining of the stomach is one huge mass of albumen. The tannic acid absorbs as much of this as is allowed by the laws of chemistry; but it kills it in the process, and to this extent injures the stomach. Milk also contains albumen, and therefore, when milk is taken into the stomach, the molecules of tannic acid select their albumen partners from it, and the albumen of the stomach remains single, and so the lining is uninjured."

"Is there anything more you can tell us regarding condiments?" asked another gentleman. "Suppose you tell us about the effects of vinegar."

"Raw vegetables are easily enough digested by cows and horses," resumed the doctor, "but the human stomach finds great difficulty in digesting them, because they contain a hard, fibrous substance, cellulose. Cabbage contains such a quantity of this matter that even when boiled it is almost indigestible.

"You probably have never met a cabbage-eater who did not complain of indigestion. But acids dissolve cellulose—and vinegar is an acid. That is why we take it with cabbage and salads, and perhaps, too, that is why it tastes so well. There is no better judge than the palate of what is good for the stomach. Oil or cream is frequently added because it protects the stomach from the biting acid.

"Some people take butter with porridge, some sugar, some milk, others buttermilk. The two latter are best for the system.

"Our bodies need a certain quantity of nitrogenous and carbonaceous foods. The porridge does not contain sufficient of the former, and this is admirably supplied by the use of skimmed milk or buttermilk. Sugar and butter are useless for the purpose. But the butter is wanted also to a small extent, for neither the porridge nor the skimmed milk has sufficient fat. The best way to take porridge, and the most palatable when you get used to it, is to boil the oatmeal in buttermilk and eat it with cream."—Washington Times.

CURIOUS FACTS

The sultan of Turkey requires that all state documents and papers intended for his perusal shall first pass through a careful process of disinfection.

One of the features that attract most attention in traveling through the Australian colonies is the number of churches which are everywhere to be found. Every little township or village has three or four edifices devoted to worship; in fact, one Victorian hamlet achieved notoriety by being the possessor of five churches and no public houses.

An African chief's umbrella is of greater importance than many people imagine, apart from its enormous size. Its loss in battle more than equals the loss of a standard of a European commander. Some of the umbrellas are twenty-five feet in diameter, with ribs twelve feet six inches long. They are made of lance-wood, and the covering is of gorgeously colored chintz, in varied sections of crimson, yellow and blue. The opening is performed by means of pulleys and ropes attached to the "runner," this operation requiring the services of three or four men. The pole, or handle, is of birch, and is fourteen or fifteen feet high.

Accounts of early writers show that squirrels must formerly have been amazingly numerous. Golman says that the gray coat was a fearful scourge to the Colonial farmers, and that Pennsylvania paid eight thousand pounds in bounties for their scalps in 1749 alone. This meant the destruction of six hundred and forty thousand within a comparatively small district. In the early days of Western settlement regular hunts were organized by the inhabitants, who would range the woods in two companies from morning until night, vying as to which band should bring home the greatest number of trophies. The quantities thus killed are almost incredible now.—American Cultivator.

Sunday Reading

WITH A LOVE THAT UNDERSTANDS

BY LIDA M. KECK

There's many a ship goes out to sea
That never returns again,
And though its cargo should precious be,
'Tis soon forgotten by men!

There's many a bird with foliage fair
That falls e'er its flight is done,
And there's never a tear and never a care
By any beneath the sun.

There's many a soul that lives on earth,
With purpose and motive grand,
With never a neighbor to know its worth,
To love and to understand!

But over the fortunes of each and all
There watcheth with tender care
The Master, who noteth each raven's fall
And heareth each earnest prayer!

"EGYPTIANIZED" CLAY

A DISCOVERY of no small value, which has recently been announced by a Niagara Falls scientist, may be traced directly to a passage in that greatest of books, the Bible; namely, the seventh verse of the fifth chapter of Exodus, relating that the people gathered straw to make bricks. While experimenting in crucible manufacture, this man had occasion to search for a clay possessing certain properties, and came to realize that Nature had endowed German clays with certain properties which were lacking in those found in America, and which rendered the former superior to the latter. In searching for information on the subject, the above-mentioned verse commanded his attention. Securing a quantity of straw, he boiled it in hot water, obtaining a dark red liquid, which when used in the treatment of clay greatly increased its plasticity. Laboratory experiments soon showed that the agent causing the improvement was tannin. The scientist treated other clays with water in which tannin was in solution, and realized that he had found the secret and made a most important discovery. It has since been proved that clay treated in this manner was changed in the most remarkable manner. Even so little as one half of one per cent of tannin develops a wonderful effect, requiring thirteen per cent less water to make the clay soft. It is stated that clay treated with this process and burned has fifty per cent more strength than ordinary clay, while in the sun-dried form it is increased in tensile strength three hundred and fifty per cent. This "Egyptianizing" process consists in keeping the clay wet with water to dissolve the tannin. It has been observed also that this treatment removes the cracking tendencies of many clays, and whereas in making glass pots it formerly required months to "age" or temper the clay, the "Egyptianized" product can be prepared in ten days. It is told of the Chinese that the people of one generation prepare clay for the use of the next, all of which time is spent in making the clay plastic. Under this new treatment the results are said to be more pronounced in ten days than obtained by the old method in years.—The American Woman.

EACH DAY SUFFICIENT

We sometimes ask ourselves if we should be willing to die, or should we be willing to live in hopeless suffering, or should we be willing to put the fire to our darling ambitions. It is easy to answer such questions. We determine the future by the present. If to-day we do to-day's duty, to-morrow we shall be able to do to-morrow's duty. If to-day we are willing to live for God, on some to-morrow we shall be willing to die for him. To-day we do not receive dying grace, for God does not call us to death. To-day he calls us to life, and therefore he gives us living grace. To-morrow he will call us to death, and to-morrow he will give us dying grace—Selected.

SWEET-PEA'S DREAM

She dreams she is a butterfly;
To yon blue sky she longs to fly;
She stretches out her soft, pink wings,
And from her mother vine she springs;
But then she wakes, and cries, "Ah, me,
I'm nothing but a frail sweet-pea!
I cannot soar to yonder sky;
None such a prisoner as am I.
That can't e'en move until a breeze,
Passing, my sad condition sees,
And moves me." Ah, my dear sweet-pea,
Thankful for e'en that should you be.
—Alice May Douglas, in Western Christian Advocate.

\$4590 IN GRAND PRIZES! THREE PIANOS FREE

Every Correct Count Wins If you count correctly you win a prize worth \$1 and are likely to win a piano No Blanks

IF YOU COUNT CORRECTLY YOU ARE GUARANTEED A PRIZE You Lose \$1.00 Per Day by Delay. See "Time Prize" offer below



If this Chart of Dots gets destroyed in any way we will send you another printed on heavy paper upon receipt of stamp to pay postage.

SUCCESSFUL FARMING—the best printed and finest illustrated \$2-page farm paper published, will give the following grand prizes to those who count the dots above correctly or nearest correctly, or in case of a tie to the person using best plan for counting.

TWO \$400 PIANOS AS FIRST PRIZES, one to a lady and one to a gentleman; 2nd prize \$150 Gold; 3rd \$100; 4th \$50; 5th \$25; 6th \$10; 7th \$5; next 25 \$3 each, and two Special Prizes (see below) of \$150 each. Surely out of this immense list you will win, but we do still better and offer 2500 extra prizes worth \$1 each to those having three counts entered and having the next best counts whether correct or not, and we guarantee that if you have three counts entered, one of which is correct, you will win a prize worth \$1. Not a few cents as a part of a divided prize, but a prize worth one dollar to each person sending correct count provided they have three or more counts entered. If you can count correctly you are sure to win a prize. In case there are not enough correct counts to take all the prizes, and we do not expect enough, then the prizes will go to those nearest correct.

CONDITIONS: Contest open to all. Fifty cents pays one full year to Successful Farming and entitles you to one count, free. \$1.00 pays for two years and gives you three free counts and makes you eligible for the special \$150 prizes mentioned below. No counts will be entered unless accompanied by subscription.

GRAND SPECIAL PRIZES. To the gentleman and lady winning the prize of \$150.00 each if they have three counts entered. That is have paid for two years for Successful Farming at \$1.00 for the two years. If you win a piano and have but one count you get the piano only, if you have three counts you get \$150.00 extra. It will pay you to have three counts.

THE TWO PIANOS will be awarded to those who count correctly or nearest correctly, one to a lady the other to a gentleman; second prize, if there are no more correct counts, to next nearest correct and so on. In case of a tie in count first prize will go to person giving best plan of counting, second to next best plan and so on. Prizes will likely go for best counts as there will be a large difference in the counts and we expect few if any correct. To give ladies and gentlemen both an equal chance, two pianos are offered. Say whether you enter ladies' or gents' contest.

"MOST COUNTS" CONTEST. entered that they may be more likely to hit it and to these we are going to give a still better offer by giving to the one having most counts entered an elegant \$400.00 piano; next highest, \$100.00 in gold; next, \$50.00; next, \$25.00. If you solicit subscriptions of your friends we will allow them three counts in regular dot contest and you three points in this "Most Count Contest" for each dollar they pay on subscription. See what John A. Goodwin says opposite.

TIME PRIZE. We feel those entering early should be rewarded and to the person winning 2nd prize we will give an extra prize of \$1.00 per day for each day his counts were received before close of contest. If it was in 10 days before the close he gets \$10.00, if 50 days he gets \$50.00 and so on. Every day's delay may cost you a dollar so get your counts in at once.

PAYS TO HAVE THREE COUNTS because then you are eligible for the Special \$150.00 prizes. If you win the piano you make \$150.00 extra, if you have only one count you get the piano only. If you have three counts one of which is correct you are guaranteed a special prize worth \$1.00 and of course may win one of the large cash prizes. With three counts you can take one on each side of what you think is the correct count and are that much more likely to hit it. We believe it will pay all to have three counts.

PLEASE NOTE. There are no hidden dots. Every dot is a distinct dot. There is no trick in our offer. The puzzle is found in the fact that the dots are confusing to the eye and the arrangement of them makes them very hard to count. Many contests are purposely made easy. Ours is made as hard as we know how, as the dots are as small and as close together as they can be and print well. So sure are we that few if any can count it that we give every person having three counts entered, one of which is correct, a prize worth at least one dollar. Now if you can count this makes you safe. You are as likely as any to win a piano or other large prize and sure to win a prize if you count correctly. There is no guess or chance about it. It is a pure question of skill. Nobody living in Des Moines or connected with our paper will be allowed to compete. Our judges are men the people of Iowa know to be honest as evidenced by the responsible positions they have been chosen to fill. The awarding of prizes will be entirely in their hands. They will show no partiality. We will pay \$100.00 to anybody who can show a single prize is given wrongfully to friends or others.

OUR JUDGES are Hon. D. B. Lyons, Pres. Des Moines Commercial Exchange; Hon. Geo. L. Dobson, Ex-Secretary of the State of Iowa, and a banker they will select. They say: "We know Successful Farming will pay every premium and we agree to act as judges and will guarantee every contestant fair treatment." What more could anybody ask? Our contest must be absolutely fair.

The person living the farthest from Des Moines is as likely to win as a person close. Nobody in Des Moines is allowed to compete. The latest count in stands as much show of winning as the first, as prizes are given for best counts, but you may lose a dollar a day by delay. See time prize.

Contest closes Saturday night, December 19th, and every letter must show by postmark it was mailed on or before six o'clock, p. m., Dec. 19th. Contestants having three counts entered may enter additional counts at 25c each.

Tell how you count the dots (to be entered as your plan), say whether you enter contest for "ladies" or "gents" piano, write your name and address plainly and address SUCCESSFUL FARMING, 227 Manhattan Bldg., DES MOINES, IOWA

PRIZE WINNERS IN PAST CONTESTS

A Piano for \$1.00. Surely people may enter your contests knowing that they will receive fair treatment. How glad I was to win a piano for so small an amount and wholly unexpected. The paper alone is worth all I paid. MRS. L. W. NOTT, Marion, Iowa.



MRS. L. W. NOTT, Marion, Iowa.

A Piano for Illinois. An elegant Piano for a Dollar! That is what I got and anybody who thinks your prizes are not awarded fairly don't know. There can be no favorites or I would not have won. I had to make effort to get contest was fair on my part before I got my prize. I am recommending you to all my friends. MIRA E. FURSMAN, Panola, Ill.



MIRA E. FURSMAN, Panola, Ill.

A Piano for Pennsylvania. Easiest way I ever saw to get a piano and you people are surely fair. Friends laughed at me and said friends received the prizes. Now they are sorry they did not enter. Will never be without your paper. D. L. FREEBORN, Knoxville, Pa.



D. L. FREEBORN, Knoxville, Pa.

He Won a Piano. Refer people to me if they want to know whether you are honest. I got a piano for a prize and never heard of you until I answered your ad. Your paper is worth twice the subscription price. W. C. ELLIOTT, Audubon, Iowa.

\$100.00 Prize. I got my \$100 and it was the easiest I ever earned. The dots are hard to count but I know the prizes go to those who win them fairly. AMY R. BARNES, Van Borne, Ia.



AMY R. BARNES, Van Borne, Ia.

\$50.00 CASH. I asked Successful Farming to pay me cash instead of piano and they sent me check for \$50.00. I went to touch as to their fairness to any and everybody. I got \$50.00 cash money as my prize. They are surely fair. JOHN A. GOODWIN, Akron, O.



JOHN A. GOODWIN, Akron, O.

\$50.00 For Canada. Why, up here in Canada I won such a paper until I answered ad. Now I will never be without it again. MISS E. FOURNIER, Metens, Quebec.

\$50.00 NEWTON RARICK, Ligonier, Ind. Others who Won. Piano: Mrs. E. Fursmán, Panola, Ill. \$100.00—Eva I. Buckner, Fredonia, Kan. \$25.00—Clara Albers, 1209 Wal., Cincinnati, O. \$100.00—C. S. Wymen, Vinton, Ia. \$50.00—S. Irving Stroyer, 225 E. 118 So. "G" St., Marion, Ind.; Alice D. Dick, Davis Ranch, Wyo.; Florence Hendrix, Lewisburg, (R. R. 2) Tennessee. These are but a few. We can give names of hundreds and hundreds who have won from \$3.00 to \$100.00, besides as many more who have won bicycles, sewing machines, dishes, etc. You make a mistake if you do not try for some of these prizes. We have prize winners in every state.



NEWTON RARICK, Ligonier, Ind.

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by buying the Century Steel Range direct from the factory, saving the dealers' profit. Prices from \$18.00 up, and we guarantee the Century to be the best range ever made for the money. Sold for cash or on monthly payments; if not perfectly satisfactory after six months' trial, Century Ranges may be returned, and we will refund your money and pay freight charges. We manufacture all our own ranges, and have done so for twenty years. That's why we know they are good and can guarantee them.

Write for complete Catalogue of all styles and sizes.

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4 REASONS WHY

The Indian Territory is a good agricultural country:

- A Bale and a Half of Cotton per Acre.
- Sixty Bushels of Corn per Acre.
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SOME DELICIOUS CATCHUPS

RASPBERRY CATCHUP.—Simmer four quarts of raspberries in one quart of cider-vinegar. Press through a sieve, and add one half teaspoonful each of mustard, cinnamon, mace and ginger, not ground. Boil thirty minutes slowly, then drain, and measure. For every quart add one pound of sugar, and boil slowly until as thick as tomato catchup. Seal boiling-hot.

PEACH CATCHUP.—Pare and quarter eight quarts of sound ripe peaches, and simmer the parings for thirty minutes in one pint of water. Then strain, add the peaches to the liquor, and simmer for thirty minutes longer. Add one and one half cupfuls of best cider-vinegar, one half cupful of sugar, two teaspoonfuls of ground cinnamon and one half teaspoonful each of cloves, mace and pepper. Simmer slowly until rather thick, and seal hot in pint jars.

GOOSEBERRY CATCHUP.—Pick over, and wash seven pounds of fine ripe gooseberries, then add four pounds of light brown sugar, one pint of best cider-vinegar, two ounces each of ground cloves and cinnamon (tied in a piece of muslin), and boil all together for three hours. Seal while hot in self-sealing jars.

GREEN-GRAPE CATCHUP.—Select grapes just beginning to turn ripe. Pick from the stem, scald, and strain. To five pounds of grapes allow two and one half pounds of sugar, one pint of vinegar and one tablespoonful each of salt, pepper, cloves, cinnamon and allspice. Boil the mixture until rather thick, and seal at once.

PLUM CATCHUP.—Boil the plums with one pint of water until soft enough to reduce to a pulp. Press through a colander, weigh the pulp, and to every five pounds allow three pounds of sugar, one half pint of cider-vinegar, one level tablespoonful each of ground cloves and cinnamon and one teaspoonful of salt. Boil and stir until it becomes thick and rich. Seal boiling-hot.

TOMATO CATCHUP.—Wash the tomatoes, and slice, and boil in a preserving-kettle until soft enough to press through a sieve. To every gallon of the pulp add one and one half cupfuls of cider-vinegar, one cupful of sugar, three rounded tablespoonfuls of salt, two tablespoonfuls of white-mustard seed, one tablespoonful of whole cloves, one tablespoonful of cinnamon, one half tablespoonful of whole black pepper, one large grated onion, and two large green peppers with seeds removed. Boil and stir until the catchup is as thick as desired, then strain through a colander to remove the spices; return to the fire to boil up once more, and seal boiling-hot. One peck of fine solid ripe tomatoes will make one gallon of catchup.

RIPE-CUCUMBER CATCHUP.—Pare the cucumbers, scoop out the seeds, and chop very fine. To every pint of pulp add one teaspoonful of salt, and let drain through a colander for six hours. Measure, and to every quart of cucumber add four tablespoonfuls of grated horseradish, two cupfuls of cider-vinegar and one tablespoonful each of white-mustard seed and chopped red pepper. Boil the vinegar and spices, skim well, and let get cold, then add the pulp to the vinegar, stir well, and seal in pint jars.

CATCHUP WITHOUT COOKING.—Slice one half peck of ripe tomatoes, and chop small one cupful of white onions. Strew over them one third of a cupful of salt, and allow to drain, then chop them very fine with one cupful of celery and three red peppers. Drain again, and add one cupful of sugar, three pints of vinegar, one fourth of a pound of mustard-seed, one teaspoonful each of black pepper, cloves and mace and two teaspoonfuls of cinnamon. Stir well together, and seal in jars.

CATCHUP WITHOUT SPICES.—Take one half peck of solid ripe tomatoes, two red peppers, three fourths of a cupful of grated horseradish, one cupful of sugar, one half cupful of salt, one quart of chopped onions, one tablespoonful of pepper and one quart of good cider-vinegar. Chop, and drain the tomatoes; remove the seeds from the peppers, and chop fine. Mix all well, and seal. **MARY FOSTER SNIDER.**

INFANT'S CROCHETED NIGHTINGALE

This dainty little jacket is simply a perfect square in shape, open through a corner, with a hole in the middle for the neck. Two skeins of split zephyr and one half skein of color are required to make the jacket, also one and one half yards of one-and-one-half-inch satin ribbon the color of the border, to draw in the neck and form the sleeve.

Make a chain of 80 st for around the neck, and crochet a chain of 3 st to turn with. Make a block of 5 d c into the sixth st of the ch. This is the front increase. Miss 2 st, and work a block of 4 d c in next 4 st; miss 2 st, and work a block of 4 d c in next 4 st; miss 2 st, and make a block of 4 d c in next 4 st. Now miss 2, and make a corner in next st of 6 d c with ch in center for shoulder-widening. Now miss 2, and make a block; repeat three times, and make a corner in the next st of 6 d c with ch in center. (This is the corner down the middle back.) Miss 2, work a block; repeat three times, miss 2, and form a corner for the other shoulder. Then miss 2, work a block, and repeat three times. Miss 2, and work a half corner into 1 st for the other side of front.

To increase the size of jacket increase the number of blocks between the corners and the number of rows lengthwise.

Second row and every row for the next seventeen rows—Make a ch of 5 st at the end; turn, and make 3 d c into the base of the 5 ch. This is for the front increase. Now work block of 4 d c between every block of the previous row, and a shell, 3 d c, 1 ch, 3 d c under the first ch of the previous corners. At the end of the last block make 3 d c at the base of the 5 ch at the end of the previous row.

At the end of the seventeenth row put on one row of the colored yarn, then one row of the white, another row of color, then one row of white. Finish off all around with a scallop in white. This is composed of 6 d c drawn out long. Edge the shells with picots of the color, composed of 3 ch and slip-stitch. **HEISTER ELLIOTT.**



The Housewife

THE ART OF DOING WITHOUT

There's a beautiful art that is sadly neglected,
And daily I wonder to see it rejected
By some who'd be healthy and wealthy and wise
By just condescending to open their eyes
And look at things fairly, with never a pout—
I refer to the fine art of doing without.

"Why, that's nothing wonderful!" maybe you'll say;
"I do without things that I want every day!"
Quite likely you do. But how do you do it—
With good grace or a face that's as blue as a bluet?

There's a wonderful difference (just jot that down)
Between giving up things with a smile or a frown;
And that is precisely the difference between
The artist and bungler—you see what I mean.

You can't do as you like? Then do as you can;
I'm sure you will find it the very best plan.
Can't have what you want? Take what you can get;
No better device has been patented yet.

'Tis the bravest and blithest and best way by far
Not to let little losses your happiness mar.
'Tis an art that needs practice, of that there's no doubt;
But 'tis worth it—this fine art of doing without.
—Minnie Leona Upton, in New Orleans Picayune.

TO "RELISH" AN EGG WHEN EGGS ARE CHEAP

Presumably any one can boil an egg, and yet to properly boil an egg is a real art. Egg albumen coagulates at from one hundred and thirty-five degrees to one hundred and sixty degrees Fahrenheit, and for this reason eggs should be cooked at a low temperature.

Have boiling water in a saucepan. Place the eggs in the water, cover the pan with a lid, and place on the back of the stove, where the water will not boil. In from eight to ten minutes they will be "soft-boiled." Another way is to put the eggs in cold water, and gradually heat the water. They will be soft-boiled when the boiling-point is reached.

A pleasing change in cooking eggs is to prepare them as follows: Place seasoned crumbs in a buttered baking-dish; in this break an egg, season with salt, pepper and butter, and bake in a slow oven. Or the whites of the eggs may be beaten until stiff, one teaspoonful of milk added for each egg, seasoned, then piled in individual baking-dishes, the yolk being placed in the center and the eggs baked slowly.

A quickly prepared supper-dish is made by cutting hard-boiled eggs through the center, removing the yolks, mashing them, and seasoning with salt, pepper, lemon-juice, mustard, melted butter, and if desired a little cold minced ham, then filling the cavities in the whites with this mixture. If a slice is cut from the bottom of the whites they will stand alone.

The egg omelet in all its variations affords opportunity for the display of skill in cookery. Even a plain omelet is not to be despised, while with the addition of fruits, vegetables, meats, jelly or cheese it may be varied sufficiently. Almost any available fruit may be used, such as cherries, oranges, etc., a part of the fruit being added and a part reserved to be used as a garnish around the omelet. Of the vegetables, any left-over cooked tomato, peas, cauliflower, corn or asparagus may be utilized. A very nice omelet is made by the addition of one pint of chopped cooked oysters or a bit of flaked fish. In fact, the variety of omelets is almost endless, and the difference in flavor produced by the addition of a little minced ham, veal, lamb or chicken will be well worth the extra trouble.

The use of hot water instead of milk makes the omelet more tender. It is also better not to make an omelet too large, a four or six egg omelet being quite large enough; if more is desired, it is far better to make two smaller ones. Many prefer to beat the eggs separately, thus insuring a lighter omelet, though drier.

One of the essential points to be remembered in cooking is that there should be a sufficient variety in our food, and frequent variation in the method of preparation, garnishing and serving. Very often a lagging



INFANT'S CROCHETED NIGHTINGALE

appetite may be tempted by a change in the way of serving food. Care, however, must be exercised that too great a variety of food is not served at a single meal, as it is not only positively harmful, but results in a greater waste of food, as more is supplied than can be eaten, while much waste could be avoided were meals so planned that the variety and the amount supplied would not be in excess, and yet comfortably sufficient. **MAUD E. GRAU.**

QUEER-LEAF LACE

First row—Make a chain of 50 st.
Second row—Make a shell of 6 t c in third st of foundation; d c in sixth st, ch 5, d c in eleventh; shell of 5 t c in fourteenth; d c in seventeenth; * ch 5, d c in fourth st from last d c *; repeat from * to * until you have seven loops, then shell of 5 t c, and lastly a loop of 5 ch, fastened with a d c in the last st of the foundation 50; turn.

Third row—Ch 5, catch with d c in center of the first loop of last row; ch 5, catch with d c in center of shell; shell of 5 t c in d c at end of same shell; catch with d c in top of next loop (catch all shells and loops in this manner; make all loops of 5 ch; the shells on the edges are of 7 t c when the shell is the last of a row; when it is the first, the ch 3 that starts the row answers for one t c; all shells in body of the pattern are of 5 t c). Finish this row with 4 loops, shell, 2 loops, 3 shells; turn.

Fourth row—Shell, loop, shell, 8 loops, shell, loop.



QUEER-LEAF LACE

Fifth row—2 loops, shell, 3 loops, 3 shells, 2 loops, shell, loop, shell.

Sixth row—Shell, loop, shell, 2 loops, 4 shells, 3 loops, shell, loop.

Seventh row—2 loops, shell, 2 loops, 5 shells, 2 loops, 3 shells.

Eighth row—Shell, loop, shell, 3 loops, 4 shells, 3 loops, shell, loop.

Ninth row—2 loops, shell, 4 loops, shell, 4 loops, 3 shells.

Tenth row—D c in top of each of first 3 st of edge shell; shell, loop, shell, 3 loops, 2 shells, 4 loops, shell, loop.

Eleventh row—2 loops, shell, 3 loops, 3 shells, 2 loops, shell, loop, shell.

Twelfth row—Shell, loop, shell, 2 loops, 2 shells, 4 loops, shell, loop.

Thirteenth row—2 loops, shell, 4 loops, shell, 2 loops, 3 shells.

Fourteenth row—Shell, loop, shell, 7 loops, shell, loop, loop.

This finishes one scallop. Begin again at third row. Two scallops are shown in the design.

MAY MYRTLE FRENCH.

NEEDLE-POINTS

Let the little girls set their first stitches in patchwork; it is less intricate than doll frocks and coats, and the stitches once learned in the simple pieces, the interested little women will soon supply their curly headed darlings with generous wardrobes. I still proudly show my doll's quilt, pieced from bits of calico when I was six years old. My little daughters, however, are making their patchwork of different material. Into almost every country home come packages of samples of lawns, dimities, gingham and all the newer cotton variations. Every mother knows the question "May I have them?" from the little daughter as she makes her choice and casts the others aside. When these pieces are fashioned into dainty quilts by the little fingers they become valuable possessions of the children.

Cut the proper length from an old pair of suspenders when you want a belt to match a certain dress, and finish as desired.

Do mothers realize the importance of tucks in the easy making of children's pretty dresses? They are always in fashion—very much so just now—and may be quickly run in a variety of widths and made to serve many purposes. The sewing-machine of course must be in sympathetic mood, the bobbin full, the needle and thread just the right numbers, and then if you start out to tuck a yoke, to give the fullness in a Mother-Hubbard, or with larger tucks fashion the waist, carrying out the same idea about the fullness, you will be surprised how soon the little frock is ready to wear, with no gathering to a yoke or a belt or waist, no basting and stitching of gathers.

Children who wear short stockings know—and so do their mothers—how provokingly they work down into the shoes, until entirely out of sight. The trouble may be avoided by sewing at the back of the stocking, below the shoe-line, a loop, and at its point of contact with the inside of the shoe placing a hook on the latter, pointing upward; or instead of this hook and loop fasten in their places a pair of the more modern ball-and-socket devices. **SUE H. MCSPARRAN.**

SEAMLESS KIMONO

COOL and comfortable and very simple to make kimonos in this style are popular among women who admire loose house-sacques and do not care to spend very much time in making them up. As illustrated, the kimono is developed in white lawn figured with forget-me-nots. It is made in one piece and slashed each side of the front and back. The sleeves are drawn together, and the under-arm seams of front and back securely fastened. Elaborate embroidery



SEAMLESS KIMONO

on the edges is done in blue mercerized cotton, which retains its lovely luster after being laundered.

A turn-down collar completes the neck. The sacque may be fastened here with ribbon or a fancy brooch. If a more Oriental-looking garment is desired, the collar may be omitted and the neck cut slightly low in front. The tabs and back may be cut square as well as pointed.

Some dainty kimonos are made of plain or figured silks edged with lace, embroidery or bands of Persian trimming. A pretty effect is produced by finishing all the edges and tying the sleeves and underarms with small ribbons instead of having seams. Flannel, lawn, dimity and albatross are also used. The sacque may be lined with soft silk if more warmth is required.

BATISTE JACKET

Summer jackets and reefers for little folks are made of such sheer fabrics that they provide only slight protection, but look very dainty.

The illustration shows a pretty little affair made of white embroidered batiste. The yoke is square both back and front, scalloped at the edges, and closes invisibly at the center.

The full-body portion is gathered at the upper edge and attached to the yoke just above the scallops. It falls loosely in box effect to the lower edge, where it, too, is scalloped and embroidered to match the yoke.

A turn-down collar completes the neck. The one-piece bishop-sleeves have comfortable fullness on the shoulders. They are very wide at the lower edge, where the gathers are arranged at the back of narrow wristbands.

Jackets in this style may be made of lace, embroidered flannel, bengaline, taffeta, serge or covert, and finished with fancy braid or lace at the scalloped edges.

SHIRRED GOWN

Silk muslin in a delicate shade of yellow is here daintily trimmed with white



BATISTE JACKET

lace. It is made over a white taffeta foundation, as linings in self-color do not look well under silk muslin.

The waist is mounted on a glove-fitted, featherboned lining that closes in the center back, and is faced with lace to a round-yoke depth. The full front and back are gathered at the upper edge and applied to outline the yoke.

How to Dress

The back is drawn down close to the belt, while the front blouses stylishly. Several rows of shirring at the waist form a girdle. A lace bertha is shirred and arranged around the yoke, extending over the shoulder in a quaint manner.

A transparent lace collar completes the neck. Yoke and cuffs are black in illustration to show lace effect. The one-piece sleeves are shirred at the top to form a close-fitting cap. Below the shirring the sleeves are very wide and droop well over narrow lace cuffs.

The skirt is mounted on a circular foundation of white taffeta. This is fitted smoothly around the waist and hips with small darts, closing invisibly at the center back in habit effect. It is cut off just below the knees.

The flounce is finely shirred at the top, and attached to the taffeta foundation, forming the lower part of the skirt. It is shallow in front and graduates to a considerable depth at the back, where it has a graceful sweep and falls in long, soft folds.

The upper skirt is shirred to make a deep yoke, and the shirring is drawn in closely over the hips. Below the yoke the skirt falls loosely and just covers the top row of shirrings in the flounce. It closes invisibly at the center back.

Elaborate designs of lace decorate both parts of the skirt, and are repeated around the waist. Costumes in this style are made only of any soft fabrics, as



SHIRRED GOWN

crêpe de chine, foulard, mousseline-de-soie, Liberty satin, veiling, chiffon, voile and crêpe de Paris. Motifs and bands of lace, or chiffon embroidery are used as a trimming for this gown.

PLAITED SHIRT-WAIST

Shirt-waists of white linen finished in strictly tailor style are used in linen shirt-waist suits for morning wear, or accompany instep-length cloth skirts and long corset coats, which identify the modish traveling-suit of the season.

A shirt-waist in this style is illustrated. The back is plain across the shoulders, and drawn down close to the belt, where slight fullness is arranged in fine gathers. The closing is made with large pearl buttons and buttonholes worked through a center box-plait.

Two backward-turning plaits are flatly stitched from neck to belt. Three plaits on the shoulders are stitched down part way, providing stylish fullness over the bust, that blouses slightly at the belt.

A narrow collar-band completes the neck. To this is attached a high band, turn-down linen collar, with a narrow black satin tie, that gives a "mannish" appearance to the waist.

One-piece shirt-sleeves have slight gathers on the shoulders, and fit the arm closely. They have only a little fullness at the wrist, where they are completed with deep linen cuffs. The opening at the back is finished with a regulation lap and facing. Small link buttons draw the cuffs close at the wrist.

Waists in this mode require very little trimming; in fact, are far more effective if made plain. Heavy wash fabrics and taffeta or peau-de-soie are appropriate materials for their development.

OUTFIT FOR A BABY

This pattern includes nine different designs of dresses, wrappers, jackets and coats for infants.

No. 1 is a dress with a round yoke of lace. The full skirt is gathered at the top and arranged on the yoke, closing at the back with small pearl buttons. The lower edge is finished with a lace flounce surmounted by several fine tucks. One-piece bishop-sleeves have comfortable fullness on the shoulders, and are completed with narrow lace wristbands. Frills of lace trim sleeves, yoke and neck. Nos. 2 and 3 are the same as No. 1, but



PLAITED SHIRT-WAIST

one has a pointed yoke and the other has a square yoke.

No. 4 is a one-piece cape hood of pale blue flannel. It is shirred on an indicated line of perforations to form the hood portion, the cape being pointed at the back. The edges are feather-stitched.

No. 5 shows a wrapper of white flannel. It has a square yoke, to which the full skirt is attached. A turn-down collar completes the neck. Fitted two-piece sleeves have flaring cuffs of flannel.

No. 6 is a cloak made of heavy white bengaline. It has a square yoke and full bishop-sleeves. The circular cape and hood are adjustable, and may be worn with or without the cloak, as preferred.

Nos. 7 and 8 are short sacques of white flannel shaped with shoulder and underarm seams. The rolling collars are drawn in with narrow ribbons. Two-piece sleeves have comfortable fullness on the shoulders. The edges of these little garments are prettily embroidered.

No. 9 is a Japanese kimono made of pale pink cashmere. It is in one piece, slashed on each side of the back and front. The sleeves and underarms of the garment are fastened with narrow ribbons, and the edges are trimmed with a number of tiny lace motifs.

A POPULAR FAD

Veils command serious attention nowadays, and only the thinnest of meshes are worn over the face.—The Woman's Magazine.

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BATISTE JACKET.—The Pattern No. 9053 is cut in sizes for children of 6 months, 1, 2 and 4 years.



OUTFIT FOR A BABY

SHIRRED GOWN.—The Waist Pattern No. 9049 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure. The Skirt Pattern No. 9056 is cut in sizes for a 22, 24, 26 and 28 inch waist measure.

PLAITED SHIRT-WAIST.—The Pattern No. 9073 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

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Miss Desire

By ALICE E. ALLEN

MISS DESIRE was an old maid. Perhaps, had she lived in a more up-to-date town or had she been less of an old-fashioned woman, she might have been called "one of the Gray girls," or even a bachelor maid. As it was, she was simply an old maid. Pretty she had once been. Perhaps she was not far from it now. But whoever pauses to think whether or not an old maid is pretty?

Miss Desire kept a small book-store. She ordered all her books carefully. She arranged them attractively. She read them intelligently. She sold them discriminately. She lived simply and quietly and patiently in small rooms back of the store, with no one but a big gray cat.

Miss Desire knelt on the floor beside a package of books that had just arrived. She cut the heavy cord with her scissors, and removed the thick wrappings. Then slowly, with little lingering touches, she took out the new books.

To Miss Desire books were alive. They were her friends. She touched them as if she loved them. Perhaps she did, for in order to live one must love.

To-night she glanced rapidly over one of the volumes, read a passage here and there from another, picked up a third, and paused at the cover.

The book was bound in gray. On the cover was a picture of the heroine—a dainty bit of color in shades and tints of gray. Below the picture was written "Desire." Across the lower left-hand corner of the cover was a white carnation, looking as if some one had dropped it there.

The name of the book, printed in gilt above the picture, was "The Desire of My Life." It was written and illustrated by Max King.

Miss Desire experienced a strange shock. Gray was her favorite color. Carnations—white ones—were her favorite flowers. Her name was the same as that of the heroine of the book. His name was the author's. She herself might have posed for the picture on the cover.

It was all very simple, after all. He had become an author. He had written a book, and had used her name. She meanwhile had become a seller of books, and Fate had decreed that she should sell his book.

But first she would read it. A delicious little thrill of excitement passed through her as she heard the crisp crackle of the leaves and caught the fresh scent of the paper.

Was another chapter of her little life-story to be added after all these years? She opened the book, sitting there on the floor, and began to read. The big gray cat, that had been dozing in his corner, came and curled up close by her side.

She turned the leaves rapidly. Had there been some one, near and dear, to note the changing expressions of her face, he would have seen first a look of absolute incredulity, followed by one of intense, ever-deepening surprise. He would have seen the gray eyes grow darker and darker until they were black. He would have seen an unwonted and most becoming crimson deepen in her cheeks. And after three hours of steady reading, he would have seen something quite appalling. He would have seen a rush of tears dimming the darkness of Miss Desire's eyes and washing out the carnations in her cheeks.

Yes, Miss Desire was quite old-fashioned enough to weep to-night over her own simple little love-story. It all seemed so pathetic somehow when told by him. It seemed unnecessary, too—the misunderstanding, the separation, the silence—viewed across the years.

Then the clock struck twelve. Miss Desire came back from the past with a start. "We are very wicked, I suppose," she said, addressing the great gray cat. "We're far too old for such thoughts."

Tobias only stretched and purred contentedly. It was evident that his sins did not greatly trouble him. And Miss Desire, being as sensible as she was old-fashioned, dried her eyes, and went to bed.

She dreamed of days long passed—days which she had fancied were forgotten. She roamed through October woods, and red and golden leaves drifted, like glad thoughts, about her; she floated among the water-lilies in the sunshine; she gathered roses in the old garden—and she was not alone.

But whatever the dream, it ended always with the day of parting. The roses turned to ashes in her hands, and the loneliness was so great that she awoke.

When morning came, in a burst of glory, she was quietly glad. The sun could still shine, it seemed, and the birds sang their songs of yesterday. The outside world—God's world—was the same as before the reading of the book. The inside world—Miss Desire's own particular little world—was strangely different. It is one thing to assure one's self day after day that some one has forgotten, but it is quite another to know that all the time he has remembered, that he still remembers.

She gave Tobias his milk, then she ate her own simple little breakfast. One must eat, even if one's roses have turned to ashes.

It was Max King the author who had written the book. Max King the man and her former lover had agreed to it, of course. Perhaps he had even looked on smilingly, indifferently, while the story had been written. Of these facts Miss Desire assured herself for several days. Then Sunday came, and in the evening came Helen.

When Helen came, somehow other things were forgotten. It

seemed as if a wind, sweet with violets and spring, blew through the room when she entered. You felt her personality before she said a word. When she showed herself to you in her voice and smile, you loved her. She was a girl whom one adored. No wonder Jack—but this is the story of Miss Desire, not of Helen.

She smiled down at Miss Desire. She was tall and straight and strong and supple. Her eyes were frank and steadfast. They looked straight into your heart. They were serious even when she smiled. Her mouth—no one could read Helen's mouth.

"Of course you're reading the book," she said. "It is your book, Miss Desire. I know you were just such a girl as she was—the Desire in the book. No other kind of girl could have made just such a woman as you are. I like to think 'twas written for you. I met him, and told him so, and what I thought of his book and of you—"

"Met whom, Helen?" asked Miss Desire, a little nervously. She was on guard when one spoke of the book.

"Why, Max King," said Helen, "the author. Some say it's his own story. Could one—do you think, Miss Desire—put one's own story into a book to be read by every one?"

"Yes—no—I don't know," said Miss Desire, incoherently; then she added, with a pitiful little quiver of her whole sensitive face, "Where did you meet Mr. King, Helen?"

"'Twas like this," said Helen, stroking Tobias. "I've been in the city for a week, and at a dinner I was introduced to Mr. King, the famous author. He hates all women, they say. But there he was, and there I was, and he had to take me in. I was sorry for him, and I think a little afraid. That was the reason I criticized his book—"

"You did?" The words leaped out in Miss Desire's surprise. Criticize his book? Her book? Could one?

"Yes; and he was as cynical and disagreeable as only he can be. So I told him about you, and how you were like his Desire, only much sweeter and truer, and he listened. But he was so gloomy and dull I was glad when dinner was over. But—you do know him, don't you, Miss Desire?"

"I did once," said Miss Desire, her eyes wistful and shining, "a long, long time ago, Helen."

Helen's eyes were very serious as she rose to go, but something very like a dimple was deepening close to one corner of her mouth.

Miss Desire did not see the dimple. She summoned all her courage. It was such a simple little question, after all, under the circumstances.

"Is—is Mr. King—did you say that he is married, Helen?"

"Married!" Miss Helen's dark brows arched themselves prettily. "No woman in her senses would marry him. He's cynical, skeptical—lots of ugly and unnecessary things, Miss Desire. Perhaps, though," she said, with a tenderness in her eyes which Miss Desire felt, but did not see, "perhaps if he had married that woman he loved long ago, and had a home and little children—perhaps he might have been better, different somehow."

Helen was looking at Tobias as she spoke. If she had looked up she would have seen Miss Desire's face grown young again.

When Miss Desire spoke she had apparently for-

gotten Mr. King, for she said, "Helen, did you ever quarrel with Jack?"

"Oh, yes, often," said that young lady, promptly; "or rather he quarrels with me."

"How do you make up—that is, come to an understanding?" asked Miss Desire.

"Oh, I begin," said Helen, vaguely.

"Then he says he's sorry, and it's all right again. Someway it's pleasant, Miss Desire—the making-up. I have found it so."

Then this grave-eyed conspirator with the dimples about her mouth went home, and Miss Desire was left alone to begin the making-up.

She walked slowly up and down the little parlor, her hands clasped tightly together, her head bent. Tobias followed solemnly up and down, down and up, but for once he was quite forgotten.

"It may be unconventional," she said, "but I never did but one conventional thing in my life, I think. That spoiled his life and saddened mine. This is the right thing to do, and I'll do it."

In her excitement she stepped on Tobias. He withdrew, deeply wounded in both foot and feelings, to the safe shelter of his basket.

So Miss Desire wrote the letter which turned the current of two lives. It was straightforward and simple. Miss Desire always put something of herself into whatever she did.

"I have read your book," she wrote, "and I understand it. Why should I not? It is my book, too. May I thank you for it?"

His address followed, the letter was sealed and stamped, and fearful of a change of mood, Miss Desire stole out into the cool starlight, and mailed it. Then she came home and comforted Tobias. Her heart was so full of joy she must comfort some one.

Two people watched and waited that week. Miss Desire watched the mails, and Helen watched Miss Desire. At last the letter came. It was written in a bold freehand, and it contained but one sentence, meant only for Miss Desire's eyes. The sentence was in the form of a question.

Miss Desire wrote the answer. She smiled through her tears as she read it over. It said, "Come. I am always and always your Desire."

Church was over. The organ-notes fell lingeringly across the silence, then died away. The roses in the altar caught the meaning of the music, and repeated it softly over and over in their fragrance.

The organist came slowly down the aisle. Her white gown trailed behind her. Her hands were full of white flowers. Her eyes were dark and demure, but there were dangerous dimples deepening about the corners of her mouth. It was Helen.

There was a young man behind her. There usually was a young man following Helen. It was a good thing to do.

Down where the sunshine fell in a glory of gold and purple through the window stood two people. One was a tall man with fine, dark eyes and a firm mouth, the other was a plump, little, pink-cheeked woman in gray. The golden light about her head may have been answerable for the brightness of her hair, but it was the light that was never on sea or shore that shone out from her eyes.

The big man, who was the great author, Max King, held out his hand to Helen. His face was not cynical when he smiled.

"Miss Helen," he said, and there was a great gladness in his voice, "we did not hope to meet so soon again, did we? Let me introduce my—wife."

There were tears in Miss Desire's eyes, but they did not dim the glory. She was still Miss Desire in spite of the fact that she was now Mrs. Max King, and Miss Desire she would be to the end of the chapter.

Helen bent and kissed her. She said, simply, "I am so glad. I do like to see people find the things which belong to them." Then she introduced Jack, adding gaily, "You will take dinner with us, Mr. and Mrs. King. I've been expecting you for quite two weeks. At six, then. Come, Jack." And away she went through the purple glory.

Miss Desire looked up with a sudden inspiration. "I believe," she said, slowly, "I believe that she told me of you, and you of me, purposely."

"Of course," said Max King; then he added, reverently, "Thank God, my Desire."

Just a year afterward, among Helen's elegant wedding-gifts she found a small volume of gray and gold. Her own face smiled up at her from the cover of the book, and she read "How I Found My Desire," by Max King, a sequel to "The Desire of My Life."

DINNA ASK ME

Oh, dinna ask me gin I lo'e ye;
Troth, I daurna tell!
Dinna ask me gin I lo'e ye;
Ask it o' yoursel'.

Oh, dinna look sae sair at me,
For weel ye ken me true;
Oh, gin ye look sae sair at me,
I daurna look at you.

When ye gang to yon braw braw
town,
An' bonnier lassies see,
Oh, dinna, Jamie, look at them,
Lest ye should mind na me.

For I could never bide the lass
That ye'd lo'e mair than me;
An' oh, I'm sure my heart wad brak,
Gin ye'd prove fause to me!

—Dunlop.



"She opened the book, sitting there on the floor, and began to read"

Love or Duty?

By HARRY WHITTIER FREES

HE SAT at his desk, staring at the unchangeable evidence before him of another's crime. It involved the honor of a trusted man and the lifelong happiness of a loyal and loving woman.

At the close of that day's business the accountant had handed him the annual statement of the bank's affairs. It told of many things—the bank's prosperity, its financial footing, and ended with the grim awakening to confidence misplaced. The cashier's account showed a shortage of ten thousand dollars.

The face of the man at the desk gleamed gray and haggard in the lamp-light. As president of the institution he was bounden to protect its interests. Policy alone demanded this man's conviction and his punishment to the limit of the law.

Such was duty.

But back of it all shown the faith and happiness of a woman—the defaulter's wife. That spoken word which duty demanded as its god-given right would condemn her to a lifelong heritage of shame.

His mind reverted back to those never-to-be-forgotten days when he had wooed this very woman—and had lost. Tearfully and tenderly, with true womanly compassion, she had told him of another. With hope deadened to despair he had accepted and respected her decision, but God pity him! that love lived on—undimmed, eternal. The intervening years had only added to his loneliness.

Such was love.

And now his must be the decision. There could be no evasion. A man's infamy and its punishment; a woman's happiness and its protection.

Love or duty?

The watchman entering the room aroused him.

"A lady at the door wishes to see you," announced the man, hesitatingly.

"You told her that the rules forbade admittance after banking-hours?" he asked, visibly annoyed.

"Yes; but she insisted, and seemed sure that you would see her. She gave me this."

He accepted the card mechanically. A woman soliciting charity, no doubt.

The glance of indifference changed to closest scrutiny and recognition.

God—his wife!

A moment later she stood timidly in the doorway, holding a child by the hand. "You must pardon my intrusion at this time," she began, appealingly—and he caught the note of sadness in her voice—"but I wished to see you alone."

He bade her enter and be seated. At sight of her, half-forgotten memories flooded thick and fast. The dormant blood of younger years leaped to his heart with a sickening whirl. He noted the calm, sweet face; a little older, perhaps, but still the same. The child at her side told of a new happiness—the legacy of motherhood.

"I have come to see you about my husband," she confessed, reluctantly. "He has changed so greatly in the past few months, that I thought perhaps it might be his work; that you would understand."

The man was silent, but the look of sympathy in his eyes encouraged her. Her voice trembled as she continued:

"He seems to have something on his mind over which he broods. Often when I speak to him he does not hear me. Then, again, he will look at me in a way that makes my heart ache. Only a few days ago I found him with our little Dorothy in his arms, and the tears were rolling down his cheeks. He is always so loving and kind, I can't understand—I—I—"

She was sobbing, and the man at the desk felt something rise in his own throat that choked him.

The child drew closer to its mother.

"Don't cry, mama—dear mama."

Suddenly the little figure straightened up with firm resolve, and darted swiftly across the room, and the man at the desk became conscious of the little one at his knee.

"You's orful naughty to make my dear mama cry," she lisped, chokingly, struggling bravely to keep back the tears. "I don't like you."

"Come, Dorothy," called the mother, gently, "you must not speak like that. You don't mind baby, do you?" she added, appealingly.

The man smiled sadly. "Mind her? I'd as soon rebuke an angel."

For a while he sat silent. He was thinking how simple a matter it would be to tell her all—how her husband's conscience lashed him to remorse. How simple, yet how despicable.

"I shall give the matter my attention," he said instead. "Perhaps your husband is working too hard. His duties as first cashier are especially onerous. No doubt he needs a rest. I shall speak to him about taking a few weeks' vacation, and can almost promise you that he will soon be his old self again."

She smiled her gratitude, relieved and happy at his assurance. Suddenly her face grew grave.

"My husband tells me frequently how kind and considerate you have been to him. Sometimes I can scarcely fathom the mobility that prompts it, for you could almost claim the right to be otherwise—God knows you could!"

"Nan!" The old pet name of other days swept impulsively from his lips as he crossed the room. "I would do anything to make you happy," he said, almost fiercely.

She looked up at him imploringly. "Don't—please don't. I have no right to listen."

He bowed his head resignedly before her rebuke. "Forgive me. I had less right to speak," he said.

She walked slowly away, and turning in the doorway, said, simply, "I shall never forget your kindness. Good-night."

The child hesitated as the mother left the room, and a moment later the man at the desk felt a little hand steal softly into his.

"I's sorry I called you naughty," came the penitent whisper, "'cause—'cause mama likes you. I likes you, too. You may kiss me."

For one brief moment he caught the child to his heart, and all the loneliness of his life was touched. He felt the little arms clasp his neck in confidence and love, and the touch of baby lips.

"God bless you, baby!" he murmured, brokenly.

The mother's voice calling the child sounded softly from the outer room.

His head drooped lower over the desk until it rested on his arm. All the bitterness of his soul welled to his lips. "Oh, God, what hast thou denied me!"

Through all the long hours of the night he did not move. Visions of "what might have been" came and went. The watchman looked into the room, and thinking that the bowed figure slept, moved silently away.

When the first gleam of dawn struggled in at the window the man raised his head. Opening a drawer of his desk, he took out a tiny locket. The fair face of a woman smiled up at him from its rim of gold. For a long time he sat in silent contemplation of the image, then with all the reverence of his manhood he touched it with his lips.

Love or duty?

Love.

That same day the first cashier was called to the office of the president. When he went back to his duties an hour later there was a strange new buoyancy in his manner.

Before the close of the day's business the president had transferred ten thousand dollars from his personal account to the bank's funds.

She never knew.

THE MEETING OF THE SHIPS

Two barks met on the deep midsea,
When calms had stilled the tide;
A few bright days of summer glee
They found them side by side.

And voices of the fair and brave
Rose mingling thence in mirth;
And sweetly floated o'er the wave
The melodies of earth.

Moonlight on that lone Indian main
Cloudless and lovely slept;
While dancing step and festive strain
Each deck in triumph swept.

And hands were linked, and answering eyes
With kindly meaning shone;
Oh, brief and passing sympathies,
Like leaves together blown!

A little while such joy was cast
Over the deep's repose,
Till the loud singing winds at last
Like trumpet music rose.

And proudly, freely, on their way
The parting vessels bore;
In calm or storm, by rock or bay,
To meet—oh, nevermore!

Never to blend in victor's cheer,
To aid in hours of woe;
And thus bright spirits mingle here,
Such ties are formed below.

—Felicia Hemans.

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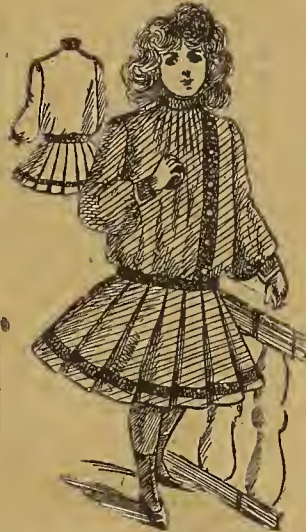


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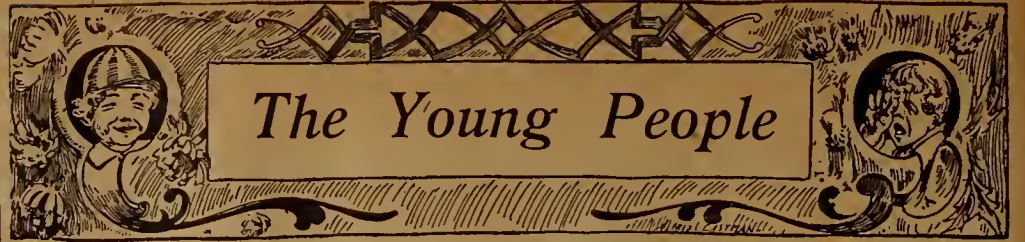
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The Young People

COMPANY MANNERS
BY "UNCLE THEODORE"



AUNT EUNICE'S folks are great on visitin'. When any o' her relations hez a birthday er a tin weddin' ye kin gener'ly count on seein' a wonderful turnout o' the fam'ly.

Tother day they invited Uncle Theodore ter one o' their celebrashuns, an' it was a corker. There was young folks an' old, babies an' childern, an' a hull lot o' second cousins whose names he never kin reckon.

Not bein' much acquainted with the crowd, Uncle Theodore played "pussy-wants-a-corner" most o' the time, an' enjoyed hisself lookin' on an' listenin'.

It was a sight ter see the dif'rence twixt the manners o' one an' another o' the cousins.

Now, o' course there's home manners an' comp'ny manners an' no manners at all. Them as hev sech hard work wearin' comp'ny manners gener'ly hez a small stock o' home manners. It don't take long ter diskiwer which folks hev the rale genooin sort o' fine, cultervated manners. It stands ter reason that individ-oals what berrer comp'ny manners fer style is apt ter git a misfit, an' then it 'minds me o' them scarecrows us boys use ter fix in the corn-fields. Mebbe the crows was deceived, but ev'rybody else knowed 'twa'n't nothing but Jerry's old clothes stuffed with straw.

'Less people's got something inside ter make 'em kind an' considerate-like an' gentle, comp'ny manners may fool "spring chickens," but not old birds. Folks as knows most an' hev be'n well brung up don't seem ter hev ter put on manners nohow; they jest move 'round quiet an' easy-like, speakin' gentle, an' never bein' boisterous er rood, never hurtin' nobody's feelin's, so that manners is fergot, an' ev'rybody feels comf'able as an old shoe, jest 'cause sech folks are so kind an' thoughtful fer others. These people seem ter hev be'n growed up on that old sayin':

True perliteness is ter do an' say
The kindest thing in the kindest way.

Wall, as I was a-sayin', that night at Aunt Eunice's celebrashun there was Jenny Knowlot an' Paul Smart, who'd never seen no sech doin's afore, an' ev'rybody knowed it, 'cause when refreshment was served, an' they couldn't git at fust table in the dinin'-room, they crowded past old folks an' young till they could see in, an' there they stood larfin' an' talkin' so loud ev'rybody heard what they said, an' many eyes frowned at them.

Then there was two er three other couples huntin' fer the easiest rockers, an' then sittin' an' sittin' in 'em, never onct sayin' nothing 'cept "yes" an' "no" when they was spoke ter, an' jest lookin' kind o' scairt an' solemn-like, no matter who came near 'em; lettin' old Aunt Stiles an' Uncle Clover stand an' stand, they theirselves never onct noticin' that seats was scarce, an' they jest holdin' on ter them rockin'-cheers an' ter their comp'ny manners fer dear life, lest they might lose 'em.

Bimeby 'long came sweet Betty Stivers. An' when somebody askt her ter play a tune on the pianny, she jest said, "Certainly, if it will give you pleasure." She didn't wait ter be teased, er ter say she couldn't play 'thout notes, er ter 'low she never played in public. She jest went an' sang a sweet little old-fashioned song, something 'bout "Gentle Words an' Lovin' Smiles," bright an' cheery as any bluebird; an' then she played a lively tune ev'rybody knowed, an' my stars! if she didn't git 'em all ter singin' "John Brown's Body" an' "Old Kentucky Home" an' "Auld Lang Syne" 'fore they knowed what they was a-doin'.

It jest 'peared like she clean fergot herself tryin' ter make others hev a pleasant evenin'. An' when all was over, many tired heads, fergittin' their comp'ny manners, dreamed o' Betty's sweet song an' her graceful way o' makin' a good time fer ev'rybody.

As he walked homeward from Aunt Eunice's celebrashun, meditatin' on what he had seen, Uncle Theodore said to hisself, "Blessed are the happiness-makers," fer ter them belong the true comp'ny manners.

BIRD-HOUSES, AND HOW THEY ARE BUILT
BY LIZZIE DEARMOND

Birds, like people, have different ideas as to where they shall live and how their houses shall be built.

The partridge chooses a hollow in the ground close by the roots of corn-stalks or tufts of grass, with overhanging weeds as a covering, so that passers-by will not readily discover it. A few bits of twig and grass are woven together, then the home is ready for the fifteen or twenty eggs that form the cradles of the tiny birds that are to be.

The merry song-sparrows tuck their snug little nests of horsehair and feathers in a grassy bank or on a low vine or bush. The male carries the materials of which it is made, and the mother bird weaves them together.

The pugnacious wrens are satisfied with almost any kind of a hole. After stuffing it with twigs and rubbish, six or seven brick-colored eggs are laid in the center of the heap.

The tailor-bird selects two leaves or one large one near the end of a twig. In these she bores tiny holes with her beak, and aided by her slender claws, she sews the materials together, making extremely neat stitches, leaving a small hole at the top for entrance and exit. Gathering delicate thistle-down, fine grass or feathers, she lines the nest so that it may be a soft, warm resting-place for her young.

The fairy-martin has a nest like a common oil-flask. It builds its curious house of mud and clay kneaded together into a firm, smooth dough. Six or seven birds generally work at the same nest, one acting as a sort of majordomo, while the others carry the material as fast as it can be used. These birds labor in the evening or early in the morning, as the heat of the sun dries the mud too rapidly. Each nest has a sort of spout, by which it is entered. The outside is very rough, but the inside is very smooth, lined with feathers and fine grass.

The baya lives in India. In Burmah he builds his bottle-shaped nest under the eaves of the houses; no one disturbs it, and sometimes as many as thirty may be seen swaying to and fro in the breeze. The upper part is divided into two rooms—one for the mother bird and the other for the father bird, while down below is the living-room. Just as soon as Madam Baya is settled on her eggs, her thoughtful mate brings bits of soft clay, which he sticks on the inner wall of the nest; then out he darts again, and secures live fireflies, which he fastens on each clay lump so there will be light in the home.

Upon the highest and most inaccessible cliffs the golden eagle rears its nest—a very rude one—just large sticks and branches heaped together. Year after year the father and mother return to their old habitation, making fresh additions, but never clearing away any of the rubbish.

There is a certain swallow that glues its nest on rocky cliffs and inside deep caverns. The nests are made of a peculiar kind of seaweed that the birds swallow, then deposit from their mouths when it has become moistened by their sticky saliva. This is placed around the edges of the nest, and the whole structure hardens when exposed to the air. These bits of gelatine are highly prized by the Chinese, but it is an extremely dangerous task to gather them.

The eider-ducks build their nests in companies, making large settlements with roads, where they can go down to the sea. Both ducks and drakes work together to build their homes. Between small hillocks they lay a foundation of seaweed or coarse grass, and upon this a bed of down is arranged and heaped up at the sides to keep the eggs warm.

The great-crested flycatcher always hunts up a few snake-skins to weave into her nest, using a lining of soft brown feathers.

What odd nests the flamingoes make! They are nothing but slender mounds of mud two or three feet high, looking somewhat like an old-fashioned churn—small at the top and growing larger toward the bottom. A small hollow is scooped out to hold the eggs, and here the bird sits, like some scarlet statue on a pedestal.

So the birds, little and big, build homes, some exceedingly commonplace affairs, others beautiful and wonderful in structure. Those of the same species build them alike from generation to generation, on the tree-tops, in the meadow-grass, by the brookside and on lofty mountain-tops, rearing their young and fitting them for a life in the outside world.

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"THEY STAND THE RACKET."

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Wit and Humor

A DELICATE SUBJECT

MADGE—"Miss Autumn's name was printed in the paper, but her age wasn't mentioned."
Marjorie—"Of course not. That girl's age is unfit for publication."—Life.

EPIGRAMS AND EPITAPHS

There is not much difference between an epigram and an epitaph. An epigram says unkind and true things about the living; the epitaph says kind and untrue things about the dead.—London Punch.

PA'S IDEA OF SHIPS

"What is an air-ship, pa?"
"A ship that puts on airs, my son."
"Is an air-ship, like other ships, called 'she'?"
"Certainly. Didn't I just say that an air-ship was a ship that puts on airs?"—Smart Set.

DECEIVED

"Very often, I suppose," said the inquisitive person, "you are deceived by apparently deserving objects of charity whom you quietly help."
"Yes, indeed," replied the wealthy philanthropist. "It's just like throwing money away. Sometimes the very people you think will advertise you most never say a word."—Philadelphia Press.

CERTAINLY A SKILFUL PHYSICIAN

"Faith, he's a moighty foine docthor. He attinded O'Pheelan whin he was sick iv th' appindicitis. 'Poke out yez toongue,' he says; 'bedad, Oi'll have to opprate on ye,' he says. 'Divil a bit will Oi be opprated on,' says O'Pheelan. 'Thin ye'll be a dead man be two o'clock,' he says. So he opprated."
"An' saved O'Pheelan's loife?"
"An' saved O'Pheelan's loife—wan hour. He died at thray."—Kansas City Journal.

THE KANGAROO'S MONEY

Andrew Carnegie brings each year from Scotland a new collection of Scottish stories. One of last year's gathering concerns an ignorant farmer.
This farmer, over a glass of whisky, sympathized one day with the complaints of an old friend of his, a peddler. The peddler said the times were always hard in Scotland; the people had no money there; it was a poor place to get along in.
"What you say is true," the farmer agreed. "Why don't you emigrate to Australia, Tavish? Australia's a grand place, by all accounts."
"It used to be," the other returned, "but it is so no longer. Australia is as overcrowded now as any other land."
"The coast may be," the farmer admitted, "but the interior I'm sure is not. Go to Australia, Tavish, and push into the interior."
"The interior?" said the peddler. "There's nothing there but kangaroos."
The farmer thought that kangaroos were some foreign race of people. "Well, Tavish," he said, reproachfully, "isn't a kangaroo's money as good as any other man's?"—New York Tribune.



INSULT TO INJURY

Ethel—"Wouldn't he give you his seat in the car?"
Madge—"No, the mean thing! And he held up his newspaper with a big 'ad' on it reading 'That Tired Feeling.'"



SLEPT LATE

"You always speak of the beautiful sunset, but I've never heard you say a word about a sunrise."
"I never see them."



THE OLD, OLD STORY

Mrs. Uptowne—"Horace, who was Richard the Third referring to in that scene where he says 'I have her, but I will not keep her long?'"
Mr. Uptowne—"Oh, probably to a new cook he had just engaged."

DOMESTIC ECONOMY

Poor man—"Well, did you buy that book telling all about how to economize in the kitchen?"
Wife—"Yes; I've got it."
Poor man—"That's good. What does it say?"
Wife—"It is full of recipes telling how to utilize cold roast turkey—but we haven't the turkey."—New York Weekly.

STINGINESS REWARDED

There is a Chinese story which tells how a very stingy man took a paltry sum of money to an artist—payment is always exacted in advance—and asked him to paint his portrait. The artist at once complied with the request, but when the portrait was finished nothing was visible save the back of the sitter's head.
"What does this mean?" cried the sitter, indignantly.
"Well," replied the artist, "I thought a man who paid so little as you paid wouldn't care to show his face."—China and the Chinese.

HAPPY ALL AROUND

They had received a letter from son Henry, who was at college.
"He says," said Aunt Martha, wiping a tear from her eyes; "he says that the happiest minute in his life was when he got on the team."
"Dogged if I don't recollect it as plain as if 'twas yesterday," responded Uncle Silas. "It was in the fur field, an' he was jest a bare-footed little tad, an' I lifted him up, an' put him on old Kate's back after the day's plowin' was done. He can't fergit the old farm, Marthy, he can't fergit the old farm."—Indianapolis Sun.

HOW CARELESS

"I saw Fuddlesome running down the street this morning," says the first suburbanite. "What was the matter?"
"He was going for a veterinary surgeon and a machinist," explains the second suburbanite.
"What was wrong?"
"Last night he went out to his stable to see that everything was all right, and incidentally to fix his bay mule and his automobile for the night. You know how careless he is?"
"Yes; but—"
"Well, now the mule has gasolinitis and the auto has hay-fever."—Judge.

A MISNOMER

An enterprising insurance-agent induced an Irishman to take out an accident policy for his wife. A few days later, while conversing with a friend in his office, he was startled to see the Irishman rushing in, brandishing fiercely a stout cane.
"Ye rascal!" he yelled, springing toward the agent, "ye wanter chate me?"
Fortunately the enraged man was disarmed and held fast by the agent's friend, who was a powerfully built man. The Irishman, struggling to get free, shouted, "Let me get at that spalpeen! Think iv it, chargin' me foive dollars fer an accident ticket fer me ole woman, an' she jest broke her leg a-fallin' down-shtairs! What's the good iv the ticket, anyhow?"—Philadelphia Press.

Popping of lamp-chimneys is music to grocers.
MACBETH.

If you use a wrong chimney, you lose a good deal of both light and comfort, and waste a dollar or two a year a lamp on chimneys.
Do you want the Index? Write me.
MACBETH, Pittsburgh.

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Dr. W. O. Coffee, Des Moines, Iowa, has just published a book on "Deafness, Head-Noises, Causes and Cure." It tells all about the ears and how he cured himself of Deafness with his wonderful Absorption Remedies. Ninety per cent of deafness can be helped or cured by the Absorption treatment. Incurable cases not taken.
He sends his book free to all having deafness and ear trouble who write him. The book explains how you can cure your deafness and head noises at home at small expense. Ask for Deafness Book and write today. Address
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WORLD'S FAIR—WONDERLAND OF 1904

Mysterious and Interesting Sights at the
St. Louis World's Fair

Stranger Than Liliputian Land

Buried River, Grant's Farm "Hardscrabble," Floral Clock,
a Cyclone and a Snow-Storm, and Hundreds
of Other Novel Features

SOMEWHERE in Africa there is a large lake of clear water, into which several rivers are constantly emptying, but which never overflows, although there is no visible outlet. Those who have visited the place say that a subterranean passage probably provides an escape, and that on very still days they have heard a roar like that of a distant cataract, and they believe the sound is caused by the rush of water through this mysterious channel.

Something like this has attracted a great deal of attention at the World's Fair grounds at St. Louis, and will attract much more when visitors are arriving by

So a number of engineers were called upon to decide what was best to do, and their verdict was that the River des Peres—for that is its name, meaning the River of Our Fathers—must be put underground. This, then, was the first work done on the Exposition grounds, and it cost nearly one hundred and twenty thousand dollars to build the huge aqueduct and divert the stream from its natural channel. It was work that does not show, and you wouldn't have known anything about it if somebody hadn't told; but now you do.

Can Flowers Tell the Time of Day?

To be sure they can, and they are going to do so in two ways at the great World's Fair next year. In the first place, there is to be a great floral clock on the grounds—one that is a hundred feet in diameter. The face of this clock will be of flowers that grow close to the soil; the numerals will be of flowers of a different color, that are higher, and the hands will be of creeping vines. While you stand and watch you will see the vine-cluster that represents the minute-hand slowly move as it sweeps around the large dial, and if patient enough you may see the hour-hand move, also. What's the trick? you will ask. Well, it is very simple. Those vines which form the hands grow from long, shallow boxes which are supported on steel frames, and these

to date, and there is a tiny railroad-train—so small that one could almost pick up the locomotive—running on wee rails that look like narrow steel bands. But they stretch away and away and curve in and out. Toot! toot! toot! What a whistle! Let us take a seat. Yes, there's plenty of room for the grown-ups, because the cars have been built wide, even if they are very low. There, only one in a seat, and away we go, the bell clanging and the baby locomotive snorting and puffing just like a big locomotive does. Whew! but we are moving fast! There is a good deal of power in that little engine. Along and along, around a curve, then another; there is a grating sound, and we stop by the side of a station. "We're on a side-track!" you exclaim; then, rounding a curve, perhaps fifty feet away, you see another Liliputian train coming toward you.

It's too bad they didn't have these trains in Gulliver's day. Then they wouldn't have had to hitch up two thousand horses in order to drag him into the city from the place where he was thrown on the beach.

But Talking of Snow

How pleasing it will be to see the white flakes falling in the months of July and August, and to see them without having to take a trip near the poles. That's another treat which St. Louis has in store, and in the



LOOKING EAST ALONG MAIN TRANSVERSE AVENUE, WORLD'S FAIR, ST. LOUIS, MO., FROM ROOF OF VARIED INDUSTRIES PALACE, SHOWING ON THE RIGHT THE NORTH FAÇADE OF ELECTRICITY PALACE, THE EDUCATIONAL PALACE, AND THE GLOBE AND OBELISK OF MINES AND METALLURGY OUTLINED IN THE DISTANCE

the hundreds of thousands. There will be no lake in sight, but there will be a hidden river, and if the crowd only remains still long enough you will hear the roar beneath your feet; if not, you can make out the sound distinctly by pressing your ear to the ground at certain points, which the guides will indicate.

If you wish to see this river before it makes a plunge into the dark channel under the World's Fair city, go to the north side of The Pike, and then on a day after a heavy rain you will see it tossing and foaming as it tumbles into what resemble great jaws of wood, then disappearing from view. Would you like to see it again? Then walk along that roadway, which bends like a bow, and which will take you between the main buildings, and in fifteen or twenty minutes you will reach the eastern limits of the site, where the water will be seen once more tossing and foaming as it escapes from its buried passageway. It is now flowing into Forest Park, and will wind around the southern part of St. Louis until it reaches the Mississippi.

This river has been made a mysterious underground stream by the work of man. It flowed through the grounds where the World's Fair is situated long before any one ever thought of celebrating the Louisiana Purchase—yes, long before white men ever came to Missouri. It was a very crooked stream, flowing east, west, north and south, and when the directors had decided upon the Exposition site, the men who were engaged to erect the buildings were in despair, and cried out, "Why, that river will wash away all our foundations!"

frames are connected by ingenious mechanism with clockwork, which is within that ivy-covered tower over there. Watch now! It is eleven o'clock. See, the door in the tower swings open, and reveals shining wheels, huge weights and a swinging pendulum. Listen! What a sweet-voiced bell that is, sounding the hour in musical notes that can be heard all over the grounds.

The door closes again; the tower, seemingly a mass of ivy, is silent; the great green hands continue their journey—all the machinery hidden by the leaves and petals.

But the second way in which the flowers tell the time? You have doubtless watched morning-glories open soon after sunrise, and have noticed how regular they are, coming out of their sleep at the same hour every day. Naturalists have found in different parts of the world flowers that open at different hours, and specimens of these have been gathered for the World's Fair at St. Louis, where they are so arranged in little beds, opposite the numerals, that when the vine-covered hand points at a certain hour the flowers near by will open. And thus they will continue to open, from early morning until late at night, when a wonderful lily of the Amazon, that has lain dormant while the sun was shining, spreads her long white petals in the shadows and gives forth a delicious perfume.

Come, now, everybody. Step this way, and we can easily imagine ourselves on the Island of Liliput, made famous in "Gulliver's Travels." But it is a Liliput up

same building where one can see this midwinter storm there will be the largest artificial-ice skating-rink in the world.

Mentioning the weather, there's a man who is preparing an illusion for The Pike, where one can go through a cyclone and not be hurt.

Did You Ever Hear of "Hardscrabble?"

The name is familiar, is it not? That was the farm where Ulysses S. Grant lived long before he became commander-in-chief of the Union armies. The General was not a very good farmer, and perhaps that is why he gave this name to his home while he was trying to support his family in St. Louis County by cultivating corn and potatoes. You will be able to see "Hardscrabble" at the Fair, for the house has been moved to within the site from the spot where it was built, and the grounds around it have been arranged as were the grounds around the old homestead, even to the flower-bed in front of the front door where Fred Grant used to pull weeds from between the peonies.

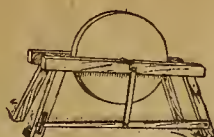
The Holy City

Think of seeing the Mount of Olives and other sights that one travels thousands of miles to view in the Holy Land! A million dollars is being expended to make a perfect reproduction of Jerusalem within the World's Fair inclosure, and it is promised that everything—buildings, streets, hills and rivers—will be faithfully presented, even persons and animals coming from the Holy City to give life to the scene.

Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE PRESIDENTS AND VICE-PRESIDENTS PUZZLE

Here are Six Pictures, Each Representing the Name of a Former President or Vice-President of the United States. Can You Guess Them?

We Offer Eight Dollars Cash in Four Prizes, as follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State their Ages, and Answers Must be Received Before October 1st.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a copy of Vols. I. and II. of "Gems of Art," two compilations of famous pictures with interesting descriptions, will be given for the first correct list of answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, one for the District of Columbia, also one for Canada.

The first correct list from each state wins a prize, giving an equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded the prize books will be given to the person sending the second correct list, so that no person will receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



ONE



TWO



THREE



FOUR



FIVE



SIX

ANSWERS TO PUZZLES OF AUGUST 1st ISSUE

The Trades Puzzle

- | | |
|---------------|----------------|
| 1—Blacksmith. | 4—Painter. |
| 2—Barber. | 5—Baker. |
| 3—Cooper. | 6—Wheelwright. |

The cash prizes are awarded as follows:

Boy's cash prize, two dollars—Quenlan Comfort, Lawrenceville, Georgia.

Girl's cash prize, two dollars—Beatrice Tasker, Manchester, New Hampshire.

Man's cash prize, two dollars—Aaron C. Parrott, Checotah, Indian Territory.

Woman's cash prize, two dollars—Mrs. Bessie L. Exum, Lawrenceville, Georgia.

A consolation prize, "The Career and Triumphs of Admiral Dewey," is awarded to the following persons for sending in the first correct list of answers from their respective states:

- Alabama—Frank L. Kessler, Prospect.
- Arizona—A. P. Walbridge, Phoenix.
- Arkansas—Johnnie Vestal, Waldo.
- California—Harriet J. Robinson, Grass Valley.
- Canada—Mrs. R. P. Hagerman, Catarqui, Ontario.
- Colorado—Lois Burlew, Denver.
- Connecticut—Mrs. Milo W. Benn, Gales Ferry.
- Delaware—Mrs. S. R. Hance, State Road.
- District of Columbia—J. S. Swan (Nat'l Museum), Washington.
- Florida—John Nutt, West Tampa.
- Georgia—Mary Coker, Trion.
- Idaho—Orville D. Ellis, Boise.

- Illinois—Mrs. A. R. Barton, Chicago.
- Indiana—G. M. Bascom, Lynn.
- Iowa—D. O. Savage, Ireton.
- Kansas—Bennie Allen, Cottonwood Falls.
- Kentucky—R. E. Fox, Winchester.
- Louisiana—H. R. Bodemuller, Opelousas.
- Maine—Hollis E. Rowe, Amherst.
- Maryland—Earle F. Dorsey, Jefferson.
- Massachusetts—Earl F. Davis, Fall River.
- Michigan—Daisy Buell, Traverse City.
- Minnesota—Lucile Douglas, Minneapolis.
- Mississippi—S. K. Moore, Carrollton.
- Missouri—I. G. Smith, McCredie.
- Montana—O. B. Walton, Meadow Creek.
- Nebraska—Alta Stacy, Davenport.
- New Hampshire—Miss G. M. Webster, Manchester.
- New Jersey—Elmer E. Bearns, German Valley.
- New Mexico—Mrs. L. B. Hoff, Farmington.
- New York—John A. Moffitt, Ellicottville.
- North Carolina—C. L. Morehouse, Southern Pines.
- North Dakota—Una Parkins, Nash.
- Ohio—C. V. Mitchell, Zanesville.
- Oklahoma—Milo Wood, Moran.
- Oregon—Mrs. John Ennis, Nyssa.
- Pennsylvania—J. B. Johnston, New Wilmington.
- Rhode Island—Mrs. W. E. Saunders, Westerly.
- South Carolina—A. H. Kohn, Columbia.
- South Dakota—O. W. Garton, Plankinton.
- Tennessee—Ursula Lassiter, Bell Buckle.
- Texas—John C. Bridgewater, Smithville.
- Vermont—Percy K. Barrett, North Clarendon.
- Virginia—Mrs. J. C. Townes, Mt. Olive.
- Washington—Ettie R. Rankin, Olympia.
- West Virginia—Mary A. South, Morgantown.
- Wisconsin—Eugenie Eaton, Watertown.
- Wyoming—Ora Laughlin, Glendo.

"THE PASSING OF THE SUMMER GIRL"

BY LIDA M. KECK

The wind caressed, with fingers brown,
Her snowy brow and neck and cheek,
And left a tint that in the town
Through all the shops we vainly seek.

The morning bathed her eyes with dew,
And left therein a wondrous shine—
A limpid, lustrous, cloudless blue
That made her glance a thing divine!

The sun, with skilful hand and deft,
Wove in his loom her shining hair,
And in its golden glint he left
A subtle pattern and a snare!

Health led her gaily o'er the sand
To blue domain of salty sea,
Where Neptune stood with outstretched hand
And gracious hospitality.

* * * * *

Love's ship lay idly in the bay,
With anchor dropt and sails afurl;
But ere I wist he slept away,
And took with him my Summer Girl!

A RIDDLE OR TWO

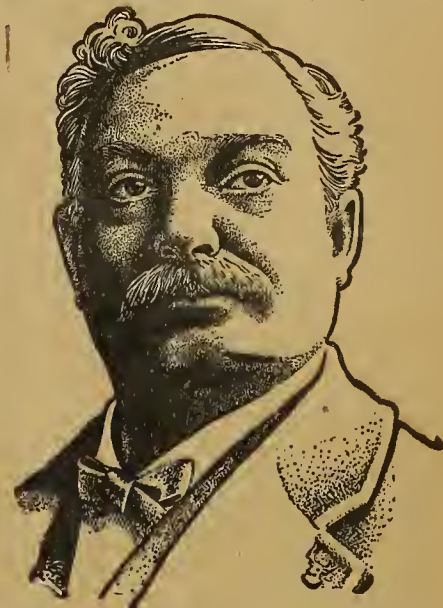
- What is that which by losing an eye has nothing left but a nose? A nose.
- What is that which goes up the hill and down the hill, and yet stands still? The road.
- What kind of essence does a young man like when he pops the question? Acquiescence.

Deadly Symptoms

Hollow Hacking Coughs, Bronchitis, Chronic Tonsillitis, Chronic Sore Throat, Asthma, Catarrh, Throat and Lung Troubles, Night Sweats, are All Symptoms of the Deadly Consumption.

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If you are suffering from a dry hacking cough, night sweats, intermittent fever, dull headache, shortness of breath on exertion; if you have a



DR. DERK P. VONKERMAN

chronic sore throat, bronchitis, asthma, tonsillitis or any throat or lung trouble, you are in danger of the deadly consumption. Vital statistics of the United States show that 65 per cent of all deaths have these deadly symptoms for their primary cause.

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IMPROVING THE HERD

[CONTINUED FROM PAGE 7]

used; whereas by the investment of a little more money a sire of pure blood and good pedigree can be had. One can safely count on ten years' use of a bull in his herd; and if he shall cost twice the price of a grade—granting even that he carries no more merit—in the long run the double price amounts to very little as a ten-years' proposition. But he will carry more merit than the grade, his ancestry insuring it, for if he has been bred and fed wisely by a business breeder his pedigree will mean that in the life of the animal certain trends and capabilities have been drawn together and established as a characteristic capable of being transmitted from generation to generation. However, all thoroughbreds are not good nor to be desired. The science of breeding has by no means yet reached that degree of accuracy where results can be definitely forecasted, and the man who stands ready to guarantee the performance of an offspring by reason of inheritance is either a rogue or a fool, and should not be trusted. But while honestly admitting the element of uncertainty even in our most carefully bred thoroughbreds, in the use of grades there is never anything but uncertainty. In the grade there is no established features, no fixity of type, and breeding up a herd will never be accomplished with such a sire. So strongly are breed characteristics established in some of the leading dairy breeds that a good individual male will often fix his color or markings on all his get regardless of the breeds or colors of the dams. This is prepotency as developed by breeding pure.

It is well for the dairyman who desires to breed for better performance in his herd to buy a sire from a dairyman breeder—that is, a breeder who is making the dairy part of his business pay; for it will be found that a bull from a good cow and a good sire is more dependable than one whose good ancestors are more remote. While examining the pedigree of the animal to be purchased, it will be wise business prudence to look into the pedigree of the breeder, also, for a mean man may vitiate the pedigree of the most royally bred animal.

W. F. McSPARRAN.

CURRENT NOTES

The macaroni-factory at Chardon, Ohio, is believed to be the largest one in the United States. Steps are now being taken to form an organization which will include the other twenty-four factories in this country.

More manufacturing means more markets for our agricultural products. The United States stands at the head of the manufacturing nations, and the value of the annual output is nearly as great as that of the United Kingdom, Germany and France combined.

Honesty of purpose increases one's self-respect. The fruit-grower who protects his fruit from disease and insects by means of improved methods, and markets his fruit in well-graded packages, is sure to become more manly, and at the same time more prosperous.

The director of the United States Experiment Station in Hawaii now reports that he has been successful in his experiments of growing cotton and Sumatra tobacco. He believes that both products may become staple ones of the islands. The same statement will no doubt prove true in Porto Rico and the Philippine Islands.

Just as it should be, North Carolina has wisely retained the right name for the college founded in accordance with the Morrill Act of 1862, "Agricultural and Mechanical College." The North Carolina Agricultural and Mechanical College at Raleigh has five hundred and six students enrolled. Of these there are one hundred and thirty-one in agriculture, one hundred and fourteen in mechanics, eighty in electrical engineering, sixty-four in mechanical engineering, fifty-six in civil engineering, forty-two in textile students and sixteen in industrial chemistry.

The Year Book of the United States Department of Agriculture for the year 1902 is one of unusual excellence. A great saving is shown by the proper use of better grades of commercial fertilizers. It also takes up the subjects of the introduction of improved varieties of grain; how to select profitable varieties of seed-corn; improved methods of culture of trucking products; how onion culture has been made a profitable crop by the transplanting system, and how plant diseases and injurious insects have been kept under better control than in former years. The only sure way to secure an early copy is to make a written application to a member of Congress or United States senator.

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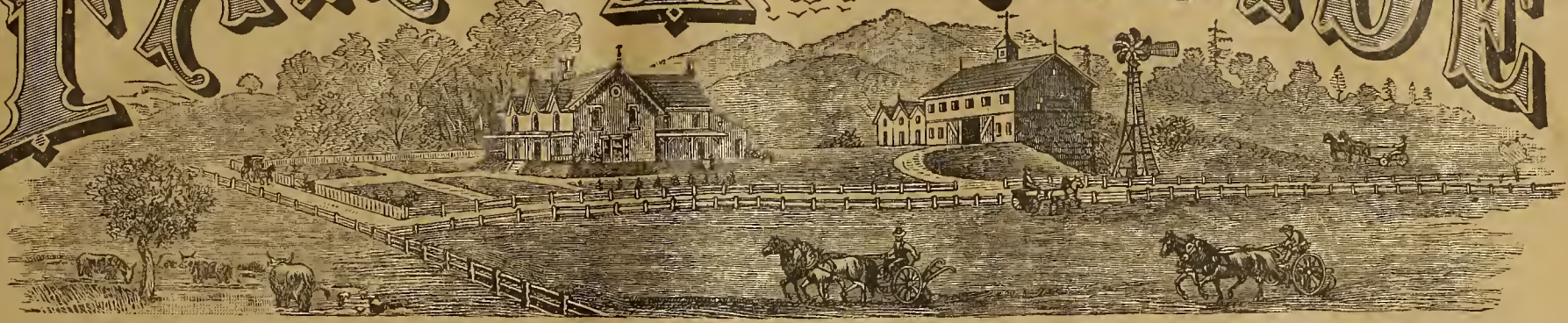
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Some Effects of the Great Kansas Flood

By D. W. WORKING

HUNDREDS of accounts have been written of the great flood which swept down the broad valley of the Kaw (or Kansas) River during the last days of May, 1903, and yet there seems to be good reason for another presentation of the subject—this time from the viewpoint of an observer reasonably familiar with the valley for many years, and especially interested in it as an agricultural region.

On the morning of the first of July I rode from Kansas City to Topeka on a local train, noting the effects of the flood on the valley lands and crops. It was a pathetic sight. Drowned-out fields of wheat, corn and alfalfa; orchards broken down, torn up by the roots or entirely carried away; houses and barns wrecked by the force of the rushing water; fences gone or weighted to the ground by accumulations of trash which the posts and wires had caught; fields and meadows replaced by washouts or wastes of drifting sand—the heaped-up evidence of the great losses which the farmers of the valley had suffered, and from which some of them will hardly recover in a lifetime, was enough to make the heart sink. There is no guessing the amount of the loss.

But floods are not mere engines of destruction rushing with resistless fury down fat valleys, leaving them lean and bare and unproductive. The flood robs Peter without compunction; but it pays Paul with a liberal rate of interest. The houses and crops and orchards that were destroyed are so much waste, but the soil washed from thousands of hillsides and from other thousands of rich valley farms was not all lost. Much of it was deposited where it will be of great benefit. Thousands of farms are richer, and will be richer for a generation to come, because of the great flood of 1903. Who would not gladly suffer the loss of one crop if the destroying flood would insure a score of more profitable crops in the years to follow? The deposit of silt which the receding waters left has doubled the value of many a farm. The desolation wrought by the rush of water is not to be overlooked, but the incidental benefits should not be left undiscovered.

What was visible along the railroad from Kansas City to Topeka—a distance of sixty-five miles

—was hardly different from that which was to be seen the same day between Topeka and Manhattan, the latter place fifty miles further west. From Manhattan, where the Blue joins the Kaw, the flood was at its maximum, although the Kaw is formed some twenty miles further west by the union of the Smoky Hill and Republican Rivers, both of which rise in the high plains of eastern Colorado. Of course, the floods of the many streams which unite to form the Kaw were destructive enough, for it seemed that every tributary was swollen to an extraordinary size during the memorable last week of May. The "pocketing" of a great storm area over Kansas and southern Nebraska was an event of a lifetime. Heavy and continuous rains over a vast area already soaked with water could not but result in a great flood; and as the storm area moved eastward hardly faster than the

flow of the rivers, it was inevitable that the flood should be one that would attain extraordinary proportions.

A few facts concerning the drainage area of the Kaw and its principal confluents in relation to the drainage areas of other well-known rivers will help the reader to understand the destructive possibilities of the Kaw when once in half a century its tributaries time their risings to reach the junction-point on the same date. The Susquehanna—measured at Harrisburg, below the mouths of all its principal branches—has a catchment-basin of 24,930 square miles; the Smoky Hill at Junction City has a drainage area of 20,423 square miles, and the Republican at the same point drains 25,837 square miles. Here, then, we have two streams uniting one hundred and fifty miles west of Kansas City after draining an area nearly twice the size of the watershed of the Susquehanna. The Connecticut at Hartford has a drainage-basin of 10,234 square miles; the Blue, which joins the Kaw at Manhattan, drains 9,490 square miles of Nebraska and Kansas land. Measured at Lawrence, about fifty miles above its mouth, the drainage-basin of the Kaw River amounts to 59,841 square miles—an extent of country greater than Pennsylvania and Maryland combined. The Kaw drains more territory than the Connecticut, Merrimac, Potomac and Susquehanna Rivers taken together. Leaving out Rhode Island and Connecticut, the whole of New England could be included in the

which made the beginning of a new channel about four miles east of the present bed of the stream. In the distance is seen the water of the Kaw, and the bluffs beyond.

The illustrations which appear on page 3 were described as follows in a letter from Mr. S. C. Orr, who made the photographs:

"A washout on the farm of William Allingham, two and one half miles south of Manhattan, in the country known as Allingham Bend. This particular washout is about seventy-five yards wide, four hundred yards long and twenty feet deep, and is only one of a great number—some larger, some smaller—covering an area of about sixty acres and rendering it practically worthless as farming-land. Where the water has dried up in these places vegetation is springing up, most prominent of which is a growth of young cottonwoods from seed deposited there by the floods. Along the west boundary of these washed lands is the new channel of the river cut during the flood across the farms of William Allingham, J. J. Harshaw, Mrs. Martha Findley and Mrs. Emily Bowen. This channel is from forty to one hundred and thirty rods wide, and covers in all about one hundred and thirty acres of ground.

"A sanded area of about sixty acres on the farm of Gus. Carlson, three miles southwest of Manhattan, in Moehlman Bottom. The sand is from one to six feet deep, and is constantly blowing and shifting about from the wind. In some places it is mixed with soil, and scant vegetation is springing up; but most of it is a barren waste of sand. Hundreds of acres of this once beautiful and fertile valley are thus rendered worthless. Even where the soil is not covered with sand it is covered over with a deposit of mud that has to lie for a year and go through a freezing process before it can be made to produce any crop."

While at Manhattan on July 2d and 3d I made arrangements with Prof. A. M. Ten Eyck to secure the photographs referred to by Mr. Orr. On July 17th Professor Ten Eyck wrote as follows: "Yesterday and to-day I have been out with Mr. Orr taking photographs. . . I have had Mr. Orr take a good view of the sanded area, and also of the washed fields, for you, and

these pictures you will doubtless be able to use.

"I made the trip to Kansas City, but I do not know that I can give you any pointers more than you were able to observe. It is my opinion that the permanent damage by the flood to the farming country has been largely overestimated so far as the destruction of the land is concerned. The washed areas are small, and the sanded districts are limited in extent and more or less local. A large part of the flooded land has been left with deposits of mud from one to twelve inches deep. This is especially noticeable in alfalfa-fields, grain-fields and meadows. There will be no permanent harm from this deposit of mud, but more likely a benefit, as the soil will be made more fertile. To be sure, this year's crops were largely destroyed, but the lands have been very largely replanted, and crops (especially

[CONCLUDED ON PAGE 3]



VIEW OF THE FLOOD FROM BLUEMONT

catchment-basin of the Kaw. So it is hardly to be wondered at that there should occasionally be a flood to remind the people of Kansas that the "flood plain" of the Kaw really belongs to that ancient river when it chooses to claim its own.

The illustration on this page shows the flood from Bluemont, a hill which rises two hundred and ten feet above the Blue River at Manhattan. In the foreground may be seen the pumping-station of the Manhattan Waterworks, the Blue Valley Railroad and the Blue River itself; then a belt of timber, beyond which is shown an area of about seven thousand acres of rich farm-land under water. The line of trees and partly submerged hedge running toward the upper left-hand corner of the picture shows where the main road runs east from Manhattan. This road and the adjacent fields were much damaged by the water of the Blue,

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Mr. Greiner Says:

IN THE MATTER OF THE BELGIAN HARE, the bubble has long since "busted." Yet the business, reduced to a plain, common-sense basis, remains. Lots of people in the country grow Belgians for pets and cheap-meat stock, and find them moderately profitable.

BLACK BELGIAN HARES.—I see it reported that the Rhode Island Experiment Station has "developed" a new strain of Belgian hares, which is of a pure, glossy black. There was no particular need of any new development of this kind. I had the pure black Belgians when a boy, nearly fifty years ago, in Germany. They were not a great rarity there, either.

KEEPING POTATOES FROM SPROUTING.—Mrs. J. B., a reader in Boscobel, Wis., says she has kept potatoes from sprouting simply by sprinkling them with dry salt. It does not want so much salt that the potatoes get damp, and the salt should be quite dry, so as to sift all through the potatoes in the bin or barrel. This method may be very easily tried.

PRESERVING FRUITS AND VEGETABLES IN LIME.—I wonder if any of our readers have tried the plan of keeping fresh fruits and vegetables for the winter, or part of the winter, in fresh-slaked lime? If so, I wish they would report. The process was highly recommended, but my success, and that of others from whom I have heard, has been none too striking. Tomatoes packed in air-slacked lime have rotted just the same. Grapes have kept longer in fair condition. Let me hear from our readers on this subject.

WHEAT VARIETIES.—The Ohio Experiment Station reports having obtained seed-wheat under different names and from five different sources, all of which showed striking similarity in appearance and yield; namely, American Bronze, No. 8 Huron County, No. 8 Lorain County, Invincible and Prosperity. The old Velvet Chaff, however, which is a wheat of only medium productiveness, exceeded them all in yield. There cannot be much "prosperity" in buying seed-wheat at three dollars and fifty cents a bushel when Velvet Chaff at less than one dollar a bushel will give a greater yield.

ENRICHING SOIL WITH HUMUS.—In most cases the addition of humus, with the nitrogen that usually goes with it, will alone serve to make an unproductive soil yield profitable crops. The cheapest plan to get the humus is to grow it on the spot, and of course the nitrogen, too. But it may take light applications of mineral plant-foods to produce the humus. A well-known central New York farmer and farm teacher says: "An application of mineral fertilizers will push along plant-growth sufficiently to produce an increased root and stubble growth that is bound in a short time to furnish large quantities of humus. Farmers do not usually believe that humus can thus be obtained, but it certainly can, and may, where the crop is needed for stock-food, be as profitable as to lose a crop for plowing under." Among crops to be grown for humus we have turnips, rye, Crimson clover, Mammoth Red clover, vetches, cow-peas, soy-beans, etc. Where Crimson clover succeeds (and I have had large crops in porous, gravelly loam, even here in western New York) the task of furnishing humus is very simple. But a light dressing of acid phosphate, and perhaps muriate of potash, also, is good in almost any case.

THE FARMER'S PRIVILEGES.—Governor Odell of the Empire State, with considerable skill and success, has been trying to shift the heft of taxation from the country upon city people and property. Farmers thus far have shown no particular inclination to resent this treatment, whether right or wrong. On the occasion of commenting on his excellency's efforts, the New York "World" sarcastically gives the following picture of the "much-abused farmer":

"The poor farmer! He lives upon the broad acres of his private park, for which he pays no rent; he drives his own horses, and so pays no car-fare; he has his own pork, mutton, chickens, turkeys, ducks, eggs, milk, butter and vegetables; he cuts his own ice from the pond, and stores it in his own ice-house; he puts maple-syrup from his own trees or honey from his own hives on the cakes made of buckwheat from his own fields; his cooking and heating are done with wood of his own cutting. When he wants more cash, he gets it by taking those city people as summer boarders."

The "World" is right. The well-to-do American farmer should be the happiest man in the Universe. Yet the drift is toward the city rather than the country.

DESIRABLE MAIL-SERVICE REFORMS.—The Society of American Authors is at present making some determined efforts to have the postage on manuscripts when going to the publisher reduced from the regular first-class, or letter, rate, of two cents an ounce to one fourth that amount, or to the same rate as now enjoyed by manuscript accompanied by the proof-sheets, when going from the printer to the author for correction or revision. A large percentage of the readers of farm papers are authors and contributors, and interested in this move, which seems to embody a reasonable demand. The reduced rate is now in force in almost all civilized countries. The United States is also far behind all other civilized countries in the matter of the parcels post. We have to pay sixteen cents a pound to mail a package to any part of this country, and the weight must not exceed four pounds. But we may mail three times as big a parcel to New Zealand, Germany, Italy, etc., and at one fourth less a pound than we can mail the smaller package to the next town here. How long will the people of this great and enlightened republic allow the express companies to continue their extortions? We are hungry for the conveniences enjoyed by the people in other countries. Such reforms must come.

TO DIE IN PEACE.—There is one practice of eminent physicians which should call for a vigorous protest by all intelligent people; namely, that of uselessly prolonging the death-struggles of patients in exalted positions by artificial means. As an instance take the late pope, Leo XIII. When nearing his end, and given up by his physicians, Doctor Lapponi told the correspondent of the Associated Press that the venerable old gentleman was in a torpor and stupor, from which he could be roused only by sharp sounds, showing symptoms of incipient cerebral anemia and general exhaustion. "He can no longer turn in his bed without assistance," said Doctor Lapponi. "and is being kept alive by artificial stimulants. During the last twenty-three hours he has had two injections of camphorated oil, three of caffeine, and two hypodermics of salt-water, besides drinking stimulants." Just think of this. The patient is known to be dying. There is no hope of saving his life, nor any pretension that this be possible by the administration of any medicine. The end is only a matter of hours, or very few days at most. There is no suffering. The end comes gradually, peacefully. And now the coarse hand of the physician interferes. The patient is called from his torpor and beneficial stupor with sharp words and sounds, so as to be brought, if possible, to a realization of his condition, and possibly of suffering. He is tortured with injections; the hypodermic needle is jammed into his flesh, and nasty solutions squirted in. Why in the name of common sense is all this necessary? Why has it ever been allowed? The same absurd treatment had been given to Presidents Garfield and McKinley. Why has humanity not protested? Fortunately doctors do not usually take such liberties with the ordinary run of mortals. The hypodermic may be useful to bring on sleep, forgetfulness, oblivion and freedom from pain and suffering, but not to prolong the final struggle and agony. I want to die in peace.

WHEN DOCTORS DISAGREE.—A German scientist, Doctor Ehrlich of the University of Strassburg, reports having found millions of bacteria, microscopically small creatures which may injuriously affect the health, on the skin of all common fruits as found in the market. It has been proven, he says, that in certain cases cholera, typhus and tuberculosis have been transmitted in this way. In one paper I read the advice to reject the skin of all fruits for this reason. Yet another hygienic expert claims great health-promoting or curative properties for the skins of grapes and other fruits. Now, what shall we do? Shall we eat the skins or reject them, or shall we let the alarmists scare us out of our fruit-eating habits entirely? The fact is that we cannot eat any raw food, no fruit, no vegetable, nor even take a drink of spring or well water, without swallowing a few thousand or hundred thousand of living microscopic organisms—bacteria, infusoria, or whatever you may call them. And what of that? Undoubtedly most of them are harmless. The really dangerous bacteria, those which spread diseases of the kind mentioned, come to the exterior of fruits and vegetables from outside—by unclean handling in the city markets, exposure to dust of city streets, etc. I confess that I abhor fruits of all kinds after they have been thus exposed. If I had to eat fruits and vegetables bought on city-market stands, I would surely subject them to a thorough cleansing process before eating them, and then prefer to eat them cooked. As a rule I reject the skins of all fruits, even when gathered freshly in my own garden. On the other hand, I believe that fruit-juices of all our sour fruits have germ-killing properties, and am never afraid to eat them, with or without skins. But when you buy fruits in city markets, by all means use fresh or running water freely. Carefully wash off the few millions of bacteria that may be on the fruit before it is eaten raw. It will be much safer if this is done.

Mr. Grundy Says:

THE CORN CROP.—In almost the entire "corn belt" the corn is about three weeks late. Last spring the soil was full of water, and cold up to planting-time. A cold drought followed, then wet, unseasonably cold weather. After the plants came up, they made slow growth until summer was well advanced. To mature the bulk of the crop we must have a late fall. The crop all over the "corn belt" looks well, and if it were three or four weeks further along toward maturity we would have a bumper crop. When the ground was so water-logged at planting-time, I advised farmers to plant largely of early maturing varieties. Those who did so will have a good crop of sound corn. Those who stuck to the large, late varieties will have sound corn if frost keeps off about two weeks later than usual. When planting is delayed, it does not pay to plant late-maturing varieties and hope for a late fall. When planting can be done early, the late, large kinds do the best, and yield heaviest.

PLANT TREES.—A few days ago I went to our lumber-dealer for the purpose of purchasing an oak plank. "Four cents a foot," he said, "for all oak lumber. Oak comes a little high now, and the price is steadily rising." This oak lumber is shipped in from a distant part of the state. About thirty years ago there were great bodies of the finest oak timber along all the rivers and creeks in this section. People came in, and wanted the land to grow corn, wheat and hay on, and they cleared off the timber in short order. What they could not sell for almost a song they gave away for the cutting, or burned. Now they are paying four cents a foot for bridge-plank and all other oak stuff, and the price is still going up. It costs a goodly sum to plank a bridge now. The old bridges built of native oak are about gone, and iron is taking the place of the wood; but the roadway must be plank, and the old fellows who burned the fine oak that grew on their gullied hillsides have to help pay four cents a foot for it. Their hillsides will scarcely grow grass now, and they are so seamed with gullies that cultivation is almost out of the question. If they had cut the timber that they found there in a sensible way—taking only the mature trees, and giving the younger ones room to develop—they would now be selling lumber at four cents a foot instead of paying that for it.

Will these hillsides ever be reforested? Not while the men who helped to clear them live. "Had too hard a job clearin' 'em," said one, "to ever want 'em covered with trees again." He said he got some good crops off those hillsides after they were cleared—got six or eight before they gullied much. He said he wished he could find some sort of grass that will grow on thin land, and keep the soil from washing, as he would like to sow it on those hillsides and make pasture of them. After he declared that no trees should be planted on the farm, I asked him what he would do for posts when those in his fences were gone. He said he thought they would last as long as he did, and then others could work out that problem. Almost all of these men are of the same mind, so it is a waste of time to talk forestry to them. A few men are beginning to plant, but I notice that the man who talks against planting receives the most attention. I am of the opinion that the next generation will plant, and if the boys are educated to plant wisely these wide-open sections will again be dotted with groves of forest-trees—trees that are useful rather than ornamental. Last winter, when coal was scarce and high, I saw a man cutting willows and cottonwoods along a creek that ran through his farm, and making fire-wood of them. They averaged about eight inches in diameter at the butt. He got about thirty loads of wood. I asked him if he did not think it would pay him to plant the banks of that creek with catalpa, locust and other trees that would supply him with both fire-wood and posts when he needed them. He said he rather thought it would. In the spring he set out about fifty cottonwoods, and that was all the planting he did.

A farmer in Iowa writes me that he likes my idea of planting trees on rough land, but he says he needs his rough land for pasture. He would like to know if he could grow trees without injuring the growth of grass, also what he should plant on land used for permanent pasture. If he will plant the trees far enough apart, he can have both grass and timber. I have seen locust and catalpa growing in pastures, and neither were injured by the stock, while white and green ash were eaten almost to the ground. In planting forest-trees in pasture I would set none less than six feet in height, and they should be about twenty feet apart, and carefully pruned every year. When young trees are set so far apart, I have found it a good plan to go over them several times during the growing-season, and nip off the tips of all side-branches. This sends the tree straight up. It is not advisable to take off more than the tip-end of side-branches, for if they are pruned heavily the leader is apt to get top-heavy. One should do this as long as he can reach these branches. When they come out too high to reach, he should use a long-handled pruner. The aim of the grower should be to get these widely planted trees well up before they are allowed to form much of a head.

After an experience extending over twenty years, my advice to all tree-planters is to buy your trees in the fall, and plant in the spring. One should have the trees shipped to him about the first of November, heel them in at once, covering at least three fourths of the tree, and plant them as early in the spring as the soil can be worked. Order the nurseryman to cut all side-roots to about four inches in length, and to send as much tap-root as he can conveniently get. It is about time to be learning where trees can be obtained. Early orders receive the best attention, and fall orders will invariably bring better trees than spring orders, while the trees are sure to reach their destination in much better condition when they are shipped in the fall than if shipped in the spring.

FARM THEORY AND PRACTICE

CLEAN FAIRS.—It is easy to criticize. The critic has an easy task in this world. He can let others do the things that are to be done, and all he has to do is to stand around and find fault; and just so long as the world comes short of perfection, his job is sure to last.

County fairs cannot run very long as losing enterprises. There must be sufficient receipts to meet expenses, or the backers will grow weary, and to secure receipts there must be money from people in attendance and money from privileges. To secure attendance there must be some attraction—some motive for going to the fair—and money for "privileges" is paid to secure the right to do something that will bring money or pay in some form.

The agricultural fair can be made to do a lot of good, and the amount of good is not wholly dependent upon its educational value, though many try to teach themselves that the educational feature of a fair is the one justification for its existence and for any one's attendance. The social feature is important. Farmers, with their families, should have the enjoyment of putting farm cares aside and meeting old friends and neighbors during fair-week. For educational, business and social reasons the agricultural fair has justified its existence as a fair.

But the very fact that the fair is needed has given managers a license to do things they would not dare to do in their private business enterprises. Having taken it for granted that the fair must be held, and that receipts must be secured, some of them have added to their list of so-called attractions in such indiscriminate fashion that more harm than good is done. When a fair does that, it needs to die. Its management has no right to defend its acts upon the ground of necessity, because there is no necessity for a fair if it is doing harm and not good.

The World's Fair at Chicago introduced to general notice some forms of indecency that were not known by the public as permissible "attractions" prior to that time. The purveyors of amusement in cities understand that there are various classes to which they may cater. There are clean shows, and there is every grade of viciousness down to that which is inconceivable to a healthy mind. The World's Fair catered to all classes; but when the agricultural fair begins to bank upon immorality and indecency as drawing-cards to itself, the justification for its existence has ceased.

A fair that depends upon family patronage has no right to admit upon its grounds any "attraction" that draws by reason of the slightest color of immorality or indecency. When it does so, it is selling for cash the right to harm country boys who should find a safe place of enjoyment. The fair that must have receipts from any gambling or lewd enterprise, or from any "attraction" that gets its pay on the pretense of being base, should go out of existence. It is time that it did.

We do not need agricultural fairs that are not clean. I do not condemn one because it is given greatly to amusement. The people should support an educational one, and then they would get it, and they could have amusement with it; but all men should unite in demanding that when a fair cannot be run successfully without receipts from gambling and from lewd shows, it must cease to exist under the name of an agricultural fair, and take its chances under the law with other disreputable purveyors to the vicious interests of the human race.

HARVESTING COW-PEAS.

—A dairyman said recently that if he had a barnful of cow-pea hay he would not buy much bran or middlings. I know the hay is all right, and it is less difficult to make than many think. Probably the dairyman would do well if he put a considerable part of his crop of peas into the silo. Professor Voorhees, of New Jersey, has been successful in making pea silage, but some have failed when using the pea by itself. I think its use in the silo will increase, but concerning its use as hay there is no doubt. Few farmers, after using this hay, are willing to be without it.

There are as many ways of curing pea-vines as there are of curing clover hay. I am not sure that my method is the best, but it is safe and inexpensive, and the hay is eaten readily by live stock. I should prefer to have the vines chiefly mow-cured, and some growers affirm that the vines need comparatively little curing in the field if the mow is deep and tight, just as some affirm about clover; but the pea-vines are so full of sap that I am very sure that they would spoil for me if I should adopt the quick methods I have seen recommended. I prefer to cure quite thoroughly in the field, taking at least six days of good weather. Rain injures quality somewhat—must do so—but not seriously, because the hay will keep idle horses in good condition throughout winter without any other grain.

All Over the Farm

Ordinarily I let the peas lie in swath two days. The September sun then begins to crisp the top leaves, and I windrow with the sulky-rake, that brings new leaves to the surface, making the windrows small. After two days, two widths of the rake in the windrow arc folded into a pile, making a forkful, and more curing follows. If a rain comes, the piles are inverted after a day's drying. This hay retains the most of the leaves, heats in the mow, and is relished by stock. The piles are easily loaded on wagons, and the unloading is done with a horse-fork. DAVID.

CARE AND REPAIR OF FARM-MACHINERY

The amount spent every year for farm-machinery throughout the length and breadth of our broad domain has grown so as to be of enormous proportions. Though necessarily large, its present impressive total

is unnecessarily increased by the common use of expensive, complicated machinery in the hands of careless, inexperienced operators. It is not an extravagant assertion to make that farm-machinery to the value of millions of dollars is annually going to the scrap-heap and junk-yards, which sum by proper care and repair might remain in the pockets of the farmers.

The life of a machine is no longer than its weakest and most delicate parts. If these are allowed to become worn, or weakened by improper adjustment, through ignorance or carelessness of the operator, the life of the machine will be shortened in accordance. Replacement of parts, as the buyer of repair fittings well knows, soon equals the price of new machines.

Complicated machines with delicate parts, such as grain harvesters, threshers, drills, planters and the like, cannot long survive negligent usage, while even the ordinary implements in common use are too often allowed to become weather-worn and loose-jointed until a heavy strain cuts short their usefulness.

A machine or implement, anywhere from a combined harvester to a simple cultivator or hay-rake, needs frequent overhauling to keep all burs tight and adjustments and bearings in perfect condition. When this care is given in conjunction with necessary pro-

tection from the weather, the life of a machine will often be more than doubled, besides being much more effective and agreeable for the operator's use.

In one respect riding-machinery has an advantage over that not so intended, since with the former it is more convenient to take the machines to the tool-house after each day's using, thus avoiding the weathering which sudden or prolonged storms often effect on machinery left in the field even when intended to be put into use the following day. Machinery when thus brought to cover after each day's use is much more apt to be kept in ship-shape condition; stormy days being available for this purpose, when if in the field they would be neglected.

The best care and repair of machinery calls for good and convenient storage facilities. An ideal tool-house is one of solid and durable construction, well lighted and made comfortable for working in during

bolts, burs, etc., the machinery-bill may be economized to an extent little realized by the average farmer, besides the saving of much time, especially when that commodity is money. Besides the saving, there is also a distinct satisfaction in working with tools and machinery thus well kept.

In an early farming experience the writer found his profit-account was kept above the danger-line only by the greatest care and home repair of his machinery.

B. F. W. THORPE.

WEEDS

Weeds many times step in, or rather come up, as the guardian of the careless or ignorant farmer. They perform this good service in cases where the farmer is so unwise as to allow his land to be unoccupied by some more useful crop. As a matter of fact, I would expect more satisfactory results in plowing down a heavy growth of weeds before they seeded than in growing a crop of turnips to enrich my land. While I appreciate the good we may get from weeds, I would never encourage the growth of them with the thought that the time might come when they would cover some mistake of mine or the season's, for they are usually on hand without invitation, whether wanted or not. They are not conventional. Above all other places where I strive for their discouragement and eradication is in my permanent pastures. I have three meadows devoted to permanent pasture, where my war-cry in my combat with weeds is unconditional surrender. In my farming-fields, where I can rotate my crops of corn, wheat, rye, potatoes, catch-crops and hay, I easily keep the upper hand of the weeds. Even there they have often reminded me that it was time to start the harrow. W. F. McSPARRAN.

CURRENT NOTES

Reliable reports indicate that there are thirty-four counties in Kansas which have each produced this season over one million bushels of wheat.

In scientific forestry the young trees are thinned out, the underbrush removed, and every means possible taken to give air and sunlight to the growing tree.

Macaroni wheat, of the variety known as the Wild Goose and imported varieties, has this year produced a very fine crop in Texas and the Dakotas. This is well, since the imports of macaroni, vermicelli, etc., during the twelve months ending with June, 1903, were valued at the respectable figure of \$1,171,922.

The various leading varieties of wheat are being properly classified and named in the United States Department of Agriculture. Each experiment station in the wheat-growing states should supplement the work, and spare no effort to keep the varieties true to name, so that farmers can secure enough pure seed to get a start. The celebrated Fultz wheat was bred from a single head. * * *

SOME EFFECTS OF THE GREAT KANSAS FLOOD

[CONTINUED FROM PAGE 1]

corn) are looking well at this date. I think that in many cases the sanded areas will not be a total loss. Where the sand is not more than six or eight inches deep it will be possible to plow down the sand and bring enough soil to the surface to establish the growth of some grasses, and perhaps alfalfa.

The damage done by the flood, while very great, was done to individuals rather than to the state as an agricultural community. As an illustration of particular effects I may mention a farm for which the owner had been offered eight thousand dollars a short time before the flood. After the flood the price was five thousand dollars. In a strip of country varying in width from one to seven miles and about two hundred miles long there must be thousands of farms that suffered similarly. Of course, great damage was done to bridges, railroads and towns and cities, but that is not part of this story.

Kansas is a great state agriculturally. As I passed through the western portion early in July, while the headers and binders were busy in fields of wheat where twenty years ago it was generally believed that wheat would succeed only occasionally, I gained a new appreciation of the ability of the Kansas farmer to adapt himself and his crops to the soil and climate of a section of country perilously near to the arid region.



A SANDED AREA IN MOEHLMAN BOTTOM



A WASHOUT AT ALLINGHAM BEND

Gardening

By T. GREINER

THE PAN-AMERICAN STRAWBERRY is fruiting freely at this writing (the end of August). I shall very likely have more remarks to make about this strawberry a little later on.

SUMMER WEATHER COMES LATE this year, but nevertheless welcome to our unusually late crops of corn, melons, tomatoes, Lima beans, egg-plants, etc. So, after all, we may get the usual abundant supply.

SWEET CORN HARDLY EVER FAILS to pay well. Up to this time it has sold readily in retail at fifteen cents a dozen ears. It still brings twelve cents, and what a lot any one can produce on a piece of well-manured land! My Metropolitan was planted so thickly that one has to force his way through the rows. Yet a large number of the stalks bear two ears, and most of the ears are large. The quality is very good.

ASHES AND LIME FOR VINE ENEMIES.—M. D. R., of Delaware, Ohio, says that for forty years he has saved his vines completely by putting ashes around and over the plants, while he has found that potato-bugs are repelled by dusting lime over the potato-vines while wet with dew. It is true that fine, dry wood-ashes have a tendency to keep bugs off the vines, and that they can be used freely without fear of harming plants. Freshly slaked dry lime when dusted freely over potato-vines will often rid them of the slugs, especially when the latter are yet quite young. It will have but very little effect on the old hard-shells.

THE ABUNDANCE OF FRUITS AND VEGETABLES with which my home is blessed just at this time, and will be until snow flies, puts a good deal of responsibility and hard work on the women of the household. Yet most women just enjoy the labors of the canning-season, and take just pride in their well-stocked larder, with hundreds of cans of choice fruits, bottles and crocks of pickles, and mysterious compounds of all sorts of vegetables and spices, etc. As friend Collingwood says ("Rural New-Yorker"), "Farm life is often hard for the women—harder than for the men. I cannot deny that; yet, on the other hand, there are chances for happiness there which are unheard of in town."

CITY OR COUNTRY?—"As for me," says Editor Collingwood, "after living under many varied conditions, I will put myself on record as saying that if I were offered the finest palace in New York, with money to run it, on condition that I must live in it all the time, I would reject the offer!" I think I have put myself on record as expressing similar sentiments on many occasions. And just at this time, when we can impress our city visitors with all the possibilities of country life and country advantages, I am particularly in sympathy with the sentiment. Brother Collingwood questions whether his madame would say "amen" to that. I know my madame would dislike to leave the country.

LARGE POTATO-TOPS.—A lady reader in Wolf Creek, Mont., reports that her potato-vines grow excessively large every year, so that she has thought of cutting them back. The soil is a sandy loam. Probably it is very rich, especially in nitrogen, in which case the only manure that would be admissible for the crop would be wood-ashes or standard mineral chemicals (acid phosphate and muriate or sulphate of potash), all in moderate doses only, or nothing, for some seasons at least. I like to see large potato-tops. It indicates a good yield of tubers. In fact, a big yield cannot be expected unless the vines are large and thrifty. On such rich soil, however, the proper way to manage, perhaps, includes the use of small (single-eye) seed-pieces and the allowance of proper space. Close planting, as we often indulge in here, will not do under such circumstances. The size of the tops is largely influenced by weather conditions, the same as the yield of tubers. In some years the tops grow excessively large. My Early Ohios this year have made more top (although they are of a rather dwarfish habit of growth) than is usually produced on Carmans or other late sorts in an ordinary season. I rather like the large tops, because it means I will get the tubers.

ONION-MAGGOT.—A reader in Crown Point, N. Y., asks me to give a "preventive of the small white worms that infest his onion-beds, working at the roots of the plants." He has found as many as six worms in one onion. That seems really like an extreme case, and as bad as maggots sometimes infest cabbages and radishes. Frequently I have had so many maggots on my radishes that almost every one was worthless, and often I have had a large proportion of my cabbage-plants die, and yet my onions have remained entirely free from the pest, or at least suffered but little, so that now and then a maggot may have been found on an onion. For that reason, and believing that the same species of onion-fly attacks all these plants, but prefers cabbages and radishes to onions, I have usually planted a row of radishes here and there in or near the onion-patch, or early cabbages close by, so as to attract the fly to the other plants, and leave the onions free. The free application of caustic (fresh-slaked lime) in powder or as lime-water seems to have a tendency to kill the maggots. But really I know of no sure remedy or preventive. Some of our market-gardeners apply heavy doses of salt to their radish-beds, and I have often used such doses of muriate of potash for the same purpose myself.

VINE-DISEASES.—Mrs. R. sends me a cucumber-leaf that seemed badly spotted with some disease. This may be the bacterial blight, which annually takes a portion of our plants, and for which we have not yet found a remedy. The fact reported by my correspondent, that "some vines in the same hill arc all right," indicating that a plant here and there is suddenly taken

and gradually dies, seems to point to the bacterial blight as a cause rather than to a mere leaf-disease. The leaf-diseases (leaf-spot, mildew) may be fought with some success by means of thorough spraying. I have never been able to prevent the occurrence of the bacterial blight in my cucumber, melon and squash patches by even the most thorough and oft-repeated spraying. I find a vine here and a vine there, often in a hill that has three or four apparently healthy ones, all at once showing a wilted condition, the wilt sometimes affecting only an entire branch, more generally the whole plant through its entire length, and the only thing that can be done is to pull up the plant and destroy it. No treatment known to me will revive it or restore it to health. I usually try to make up for the loss of an occasional plant by leaving a larger number of vines, and even the hills, closer together than I would otherwise or the books recommend. At times, however, the loss is so large that even this is not sufficient, and I have even seen instances where the entire patch was cleaned out entirely by the disease.

MELON-LICE.—The same correspondent asks "what will keep bugs off the under side of the leaves." The "bugs" are probably plant-lice, that in some cases do a great deal of damage, and being clustered on the under side of the leaves are not easily reached. If I had but a few vines in the home garden, I would take leaf by leaf, turn it over, and sprinkle it with tobacco-dust. A more expeditious way, of course, is spraying with a strong tobacco-tea, kerosene emulsion, or even a plain, strong suds made from pure soap and hot water, applied hot. The nozzle should be turned up at right angle, so the spraying can be done from below.

SECOND-CROP POTATOES.—I have sometimes grown potatoes for seed by planting old tubers (that had been kept over by exposing in a single layer to more or less light) during the latter part of July or early in August. At times I have also tried to grow a second crop by planting potatoes of the first crop of real early ones, especially Early Ohios, selecting for this purpose the tubers that had grown near the surface and been partially exposed to the light. It is not easy in the climate here to get the new potatoes to start into strong growth, even when already supplied with new sprouts or leaves. A Tennessee reader who has a lot of Bliss' Triumph asks me how he should manage them in order to grow a second crop for next season's planting. It is quite sure that the tubers cannot be planted and made to grow immediately after being dug. At least, I know of no way to do it. Southern planters who have time enough for the manipulation, however, may place the freshly dug potatoes out in the open, under a tree, where they have plenty of light, and will lie in a moist position all the time for several weeks, when they may be planted with some expectation of their starting into growth at once, and making a small crop. The seed will be good even if the tubers are but partially developed. If tubers can be selected that have already been "greened" by growing partially uncovered (near the surface), all the better. In fact, for growing potatoes to be planted again for a second crop, I would plant them very shallow, and hill them very little. One grower places the tubers on sod in an orchard, and covers them with straw, then keeps this straw quite wet. In this latitude we will have to rely on late planting of old potatoes to get superior seed-potatoes. Two years ago I planted some old Carmans in early August, and grew as good seed (although the tubers were only medium-sized) as I ever planted.

Fruit-Growing

By S. B. GREEN

COREOPSIS.—D. C. H., Rochester, Minn. The sample flower which you inclosed is what is known as "annual coreopsis." It is quite a popular annual, and grows easily from seed.

MOUNTAIN ASH.—J. B., High Willow Grove, N. J. The specimen which you inclosed looks nothing like the American chestnut, and I am very positive it is a Mountain ash. I think you had better notify the nursery people from whom you received it that they have made a mistake, and if they are reliable persons they will undoubtedly replace it with what you ordered.

PLANTAINS.—W. M. L., Junction City, Ohio. The plant which you sent is one of the plantains, known as *Plantago aristata*. This is an annual plant, and the only way to keep it from spreading is to prevent its going to seed. If your lawn is badly infested with it, it may be best to spade up your lawn, and keep it cultivated one season, then seed down early the following spring. If it makes its appearance in only small quantities, it may be dug out with a knife.

GRAPE FLEA-BEETLE.—J. G. B., North Rochester, Mass. The grape-leaves which you sent have been infested with the larvæ of the grape-vine flea-beetle. This is the typical flea-beetle, and is very difficult to capture. It is steel-blue to metallic-green in color. The beetles live over winter under any shelter, such as loose bark, leaves, etc. They become active in early spring, and do their greatest damage by boring into and scooping out the unopened buds. The young hatch in June or July, and soon riddle the leaves with holes. The best remedy is probably spraying with Bordeaux mixture, to which has been added a small amount of Paris green. This should be done just as soon as any injury from it is discovered.

GRAPE-ROT—SOIL FOR CURRANTS.—G. L., New Madrid, Mo. Grape-rot is very common throughout this country, and it is especially bad in moist seasons. The only way it can be prevented in some sections is to spray the grapes with some good fungicide, as the rot is caused by a fungus. The best treatment for this will depend somewhat upon circumstances. Most

growers are agreed that the grape, as soon as the fruit is set, should be sprayed with Bordeaux mixture made from a formula of five pounds of lime, five pounds of copper and fifty gallons of water. This should be repeated three or four times, at intervals of about three or four weeks, or until the grapes begin to color, when no further application should be applied. If it is necessary then, ammoniacal carbonate of copper should be used. The use of these materials to prevent grape-rot is very common, and gives decided satisfaction. The best soil for currants is a heavy, rich loam, but they will do well in any good corn-soil. They should be planted at least five feet apart each way, and in commercial planting I prefer to make the distance six feet with all the strong-growing kinds.

APPLE-BLIGHT—CURRANT-WORMS—ROSE-SLUG—CABBAGE-WORMS.—O. C., Leland, Ill. The injury to your apple-trees is undoubtedly due to what is known as apple-tree blight. This is a very common disease in the Western states on apple-trees, and in the Eastern states on pear-trees, and some varieties are so susceptible that they are easily killed from its injury. The best treatment is to gather and burn the dead portions as soon as the injury for the season has stopped. I am inclined to think that persistence in this will very materially lessen the blight. Of course, this is in case your neighbors do not allow similar material to stand in their orchards.—The currant-worm is quite easily destroyed by hellebore. In my experience I have found it best mixed with flour; but as hellebore is often adulterated, and Paris green usually comes in a good quality, I generally prefer to use Paris green mixed with flour at the rate of one pound of Paris green to thirty pounds of flour. It is important that the insecticide for the currant-worm be applied early in the season. The fly, which is the mature form of this worm, lays its eggs on the under side of the leaves in the center of the bushes, and seems to prefer gooseberries to currants. As soon as the worms hatch out, they eat holes through the leaves. In watching for them, one should look out for these leaves, as they are very inconspicuous, but by a little practice you would soon be able to pick them out.—Your roses have had the foliage eaten by what is known as the rose-slug, which is a little sticky worm that eats off the surface of the leaves, leaving them skeletonized. The best remedy for this is Paris green applied as for the currant-worm.—You will find that Paris green is also the best remedy for the cabbage-worm, and the best way to apply it is mixed with flour. If applied with water it will run off, but if applied with flour it will destroy the worms completely, and give you the best of satisfaction. You need not be afraid that the Paris green will poison the cabbage and make it dangerous to eat, for the cabbage grows from the inside, and the outside leaves come off anyway; and further, there would be practically no Paris green left on the leaves after one or two good rains, and a year or two ago it was shown by one of the experiment stations that in order to get a poisonous dose applied in this way one would have to eat about thirty cabbages, outside leaves and all, at one sitting.

THE SITE FOR AN ORCHARD

In selecting a site for an apple orchard it is well to choose elevated ground. Elevation above surrounding areas secures air and soil-drainage and comparative freedom from frost. Before spraying was practised, elevation counted for more in securing fair fruit than it does now. Air-drainage is often secured by ravines running through or near the orchard. Many good orchards are on level land. This does not disprove the rule, but shows that exceptions may not be disastrous.

A fairly fertile clay loam is about the best for an apple orchard, but the fact that apple-trees do well on many different kinds of soil shows that it is not best to emphasize too strongly the importance of choosing any particular kind of soil.

If the soil is too poor to secure a good growth, fertility may be supplied, but to check too rampant a growth and to induce fruitfulness is not so simple a matter; hence, a rather infertile soil is to be preferred to one having too abundant a supply of plant-food elements.

Exposure, or the direction in which the land slopes, is usually a matter of considerable importance. For winter apples a northern slope is better than a southern. The drying effect of the sun on a southern slope may be somewhat lessened by mulching, but it is easier to manage a northern slope, and the results are much more certain to be satisfactory. For early varieties a southern slope may be preferable. There is usually but little choice between an eastern and western slope, except that the former is usually more fertile.

There are good orchard-sites in nearly all parts of the state, but they are more numerous in the hilly portions. One is less liable to make a mistake in choosing an orchard-site where the land is somewhat hilly or rolling than where it is level.

Sugar-tree, and sometimes beech, oak and chestnut, lands are suitable for apple orchards. Elm-land is seldom desirable. A soil which will give a good crop of wheat without lodging, if the elevation is sufficient, is usually safe orchard-land. The potato crop is usually a safe guide, but the corn crop is less so.

THE TREES FOR PLANTING.—Opinions differ regarding the proper size of trees for planting and the age at which they should be taken, but all are agreed that a tree which is one year old at planting will come into bearing at about the same time as an older tree. For various reasons, however, many prefer larger and older trees, mostly because they are more easily seen and less liable to injury. A tree which is four years old or more is more liable to die in transplanting and more difficult to get into shape than a younger tree. One is not likely to make a second attempt at starting an orchard with large-sized trees. If one-year-old trees are chosen, none but the largest and best should be taken. A well-grown one-year-old is a great deal better than a two-year-old of the same size. Culls are not suitable in any case. It is better to buy trees by age than by size, but one should understand in doing so that trees of some varieties will be larger than others.—W. J. Green, in Bulletin No. 187 of the Ohio Agricultural Experiment Station.

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Poultry-Raising

By P. H. JACOBS

LATE-MOLTING HENS

THE hens should have finished molting before now, for when they do not finish until November or by the time the winter opens, they seldom lay before spring. It requires about three months to molt, and if the hens do not begin to molt before October they seldom complete the process until well in January. They will, however, begin laying when spring opens, and they will then give a good account of themselves. Some who have tried the method claim that when the hens are fat, and food is then withheld, they will begin to molt, and molt rapidly, if fed on nitrogenous foods, such as meat, dried blood, etc. If the hens finish molting before winter they will lay through the winter months.

SITTING HENS

It is now rather late for hens to sit, and in endeavoring to prevent them from incubating some persons resort to cruel methods. It is not out of place to again mention the easiest and best plan. When a hen sits she must feel the sensation of warmth under her body when she is on the nest, otherwise she will abandon the work. Simply prevent her from imparting warmth to anything. She will sit on a porcelain egg and attempt to keep it warm, but when she finds that she can create no heat with her body she will desist from sitting. Make a small coop with lath or strips, and have the floor of lath, also, the coop to be raised a few inches from the ground. The air under the hen being cool, due to the open spaces between the lath, will soon cause her to become disgusted.

LINSEED-MEAL FOR POULTRY

Linseed-meal is an excellent addition to the general variety of foods for poultry, as it is highly nitrogenous, and it is much superior to cotton-seed meal, as the seeds from which it is made are fully matured, which is not the case with the ground cotton-seed. Linseed-meal may be fed at all seasons. Even when grain is allowed it will pay to feed linseed-meal, and when given linseed-meal the hens will lay more eggs. It is richer in the essential elements of growth and production than many other concentrated foods, and greatly enriches the manure. About one gill of linseed-meal may be added to every quart of ground grain used. The linseed-meal is rich in mineral and nitrogenous materials, and serves to balance the grain, the mixture with half a pound of ground meat making one of the best egg-producing foods. It should not be used oftener than once a day.

LIMED EGGS

Readers of the FARM AND FIRESIDE frequently request methods of preserving eggs, and especially with the aid of lime. In this era of cold storage the limed egg has no standing whatever, and if sold in market they will not bring enough to pay for the eggs before they were limed; in fact, limed eggs will not sell at all except for purposes outside of household use. However, to oblige readers, it may be stated that the following is one of the methods: Use one pint of salt, one pint of fresh lime and four gallons of boiling water. When cold, put it in stone jars; then with a dish let the fresh eggs down into it, tipping the dish after it fills with the fluid, so that they will roll out without cracking the shells, for if a shell is cracked the egg will spoil. Put the eggs in whenever you have them fresh. Keep covered and in a cool place. Such eggs are largely used by bakcers and in the arts. Albumen is made from the white, and egg-oil from the yolks. The egg-oil is used for oiling leather and wool in the woolen-mills. Then there are egg-pomades, desiccated eggs, and preserved eggs (for tanners' use). Limed eggs can not compete at all with eggs intended for the table, and they can easily be detected.

WORK ON THE POULTRY-HOUSE

The fall season of the year is the time when preparations should be made for winter, the most important matter being the construction of the poultry-house, with due regard for the comfort of the fowls. One of the best arrangements is an open shed, which will be useful both in summer and winter. The shed can be added to the poultry-house with but little cost, as it should be open in front, facing the sun, the opening to be covered with wire, to protect against enemies. The advantage of the open shed is that it provides shelter in the open air. There is nothing to which the fowls object more than remaining in the roosting-place of the poultry-house during the day. They will stand for hours in the rain rather than

go into the roosting-compartment. When the space at the disposal of the fowls in the poultry-house is very limited, the floor may be raised about two feet above the ground, thus forming a shelter underneath, instead of the open shed, if preferred, into which the fowls can go on stormy days. When, however, it can be arranged, it is much better to have an open shed, separate or adjoining the house, for when the floor is raised it makes the interior of the house much colder. When the ground forms the floor, the cold air does not get so easily to the fowls from the bottom. When it cannot be avoided, and the raised floor is adopted, it should be made of stout wood, and the interior should be covered with a layer of litter, dry earth, or some such substance, two or three inches thick, and this will assist in making the house much warmer, as well as affording the fowls an opportunity to exercise.

SUMMER FEEDING OF DUCKS AND GESE

Those who feed ducks and geese when grass and insects are abundant should learn that more harm is done than may be supposed. They will consume young weeds and all kinds of grass, and find more food on the ground than they can consume. To feed them on grain at this season is to make them excessively fat. Both geese and ducks will consume grain or other concentrated food, but foods of a more bulky character are preferred. Their livers are large proportionately, and they have great digestive capacity. They prefer grass, especially clover, and some weeds, such as purslane, as delicacies. Ground grain moistened with milk is excellent in the early part of the year, at which period they are beginning to lay, and a little ground meat added will always be of advantage. This ground grain may be oats, corn, bran or middlings. In summer, if young ducks can get grass, they need only one meal a day, composed of cooked potatoes or turnips thickened with bran. They prefer soft food. When winter comes they may be fed twice a day, adding animal-meal or cooked meat at night. Their runs, if they are confined, must be kept clean.

FATTENING GROWING BIRDS

A matured animal or bird fattens more readily than one that is growing, because its requirements are fewer. It is sometimes very difficult to make a growing chick fat, as the food goes to form bone and muscle rather than fat, the carbonaceous material serving to heat the body. Such chicks seem to grow rapidly, and really attain good weights in a short period, but they are not always fat. In order to fatten them properly, the work must be done quickly. They should be cooped up, and given plenty of corn-meal and ground grain moistened with milk, with wheat and ground corn at night. One week is long enough, as they will begin to lose flesh or become sick if kept confined too long, for the growing chick can subsist but a short time on a carbonaceous diet. The necessity for nitrogen, due to the formation of feathers, as well as lack of the elements of bone, will cause chicks to droop. The chicks may be made to gain one fourth their weight in ten days; that is, a two-pound chick in ten days should weigh two and one half pounds. But in such cases the weight is not so desirable as the fat, as they will gain very rapidly if highly fed, even when running at large, though they do not fatten readily on account of all the food going to flesh and bone. As soon as they mature they fatten very quickly, and with pullets the difficulty will then be to prevent them from becoming too fat.

INQUIRIES ANSWERED

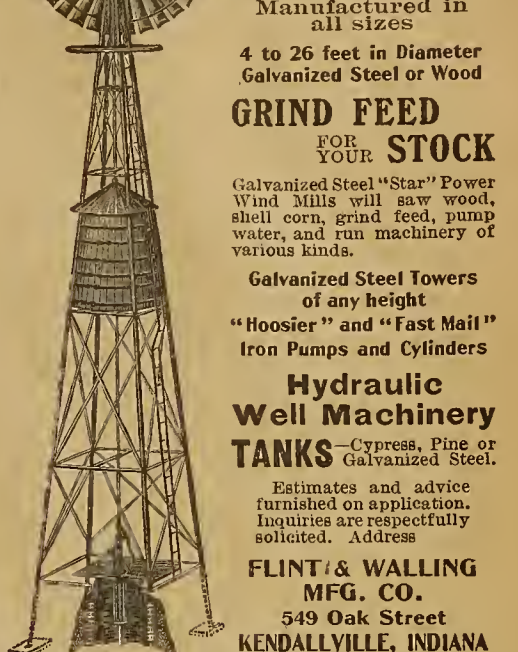
MATURITY OF PULLETS.—E. B. L., Washington C. H., Ohio, wishes to know "if Leghorn pullets begin to lay when four months old." Instances are known in which Leghorn pullets laid before they were four months old, but the usual age is about five months. They reach maturity early.

WORMS.—L. V., Emporia, Kan., desires "a remedy for worms in chicks." Give no food for twenty-four hours, and then feed on moistened corn-meal three times a day, as much as the chicks will eat, for two or three days, adding a teaspoonful of spirits of turpentine and two teaspoonfuls of sulphur to each pint of meal.

TURKEYS.—E. S., Rochester, Pa., has some fine young turkeys, and asks "if the best of the gobblers should be retained." The best results cannot be obtained by the use of young gobblers. One at least two years old should be preferred, and he should be procured from elsewhere, in order to avoid inbreeding.

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Anæmia, another word for poverty of the blood, is probably the most common cause. Coarse, innutritious food reduces the vitality of the dam, the circulation is sluggish, the blood supplied to the calf, colt, lamb or pig is deficient in quantity and poor in quality.

These conditions above are often sufficient to cause a cow to lose her calf or a mare to lose her foal, and if aided by excitement, a physic, a fall or a chill, abortion is almost sure to follow. In all animals carrying young, good nutritious food must be supplied to nourish dam and fetus. Tonics are required, and quiet, clean quarters must be provided, and grain or hay affected with smut or containing ergot must be avoided.

Anæmia, being one of the most common causes for abortion in animals, is not easily noticeable. Animals showing extreme debility of the muscular system, becoming easily exhausted upon slight exertion, are generally anæmic, and no better tonic can be applied than Dr. Hess Stock Food. It contains the tonics and salts of iron essential for the improvement of impoverished blood.

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The cows are the property of individual members of the American Jersey Cattle Club, and they are assembled because they are the best qualified to make up a herd that will represent the Jersey breed in the great dairy demonstration arranged for the World's Fair at St. Louis in 1904 by F. D. Coburn, Chief of Live Stock.

Unequaled care and attention are being given these cattle. No athlete trained for an event requiring the development of strength, endurance and skill ever received more attention than is being bestowed on these full-blood Jerseys. When the Louisiana Purchase Exposition opens its gates on April 30, 1904, the herd will have been in constant training for a full year, and will be in the pink of condition.

Twenty-five cows will participate in the test at the World's Fair, and fifteen cows are held in reserve, to be substituted should occasion require. Great caution and judgment was exercised in the selection of these candidates. The committee was free to select from any of the two hundred and fifty thousand registered Jerseys in America, and the animals thus come from all sections of the United States.

The owners of the cattle are prosperous, and they and the Jersey Cattle Club to which they belong determined to spare no expense in making a perfect showing. The cows, selected from widely separated points—some coming from Maine and some from Oregon, some from the North and others from the South—could not give satisfactory results until they were accustomed to the St. Louis climate. So a point near St. Louis was desired for assembling the herd, and as A. O. Auten, of Illinois, a member of the club, tendered the use gratuitously of his four-hundred-acre farm on the outskirts of Jerseyville, his proposition was accepted.

This farm, forty miles from St. Louis, and one of the best in Illinois, has been pronounced ideal for the purpose, and there the work of getting the Jerseys in condition is going forward.

C. T. Graves, of Missouri, a well-known breeder of Jersey cattle, and an expert on all matters pertaining to the dairy, was selected to take charge of the operations, and with his family he moved to Jerseyville early in 1903, and began the interesting work. It was planned to construct on Mr. Auten's farm a model dairy and accessories, and under Mr. Graves' personal direction this has been done.

First he designed a cow-stable, which was completed early in July, and it is probable that not another barn in the world is as complete in every respect as this. It is a square, with stable-wings on the north and west. The north wing has stalls for twenty-four cows, and the west wing has stalls for twelve cows and six roomy box-stalls.

The barn and stables are marvels of convenience and cleanliness. An electric plant, in a separate building, furnishes light and power. The numerous windows are perfectly screened, and electric fans, numerous placed, keep the air in constant motion. There are no unpleasant odors, and the stalls extend the full length of the wings. The cows are so placed that their heads are at the rows of windows, and the air they breathe is always pure and fresh from the fragrant fields. The floors are all concrete. Between the rows of cows, at their rear, is a granitoid passageway, affording the cows' caretakers plenty of room to work at feeding and milking time.

The mangers are also of concrete, and are different from anything ever before designed. The walls slope toward the cow's head, and while the tendency is for the animal to push the food away from her, the sloping walls bring it right back. A gate is at the cow's head. It is so arranged that it may be put forward or back, so as to fit the cow's length, and keep her rear hoofs on the edge of the floor of the stall, adjoining which is a gutter. A chain at the back

passes under the hollow of the cow's rear legs, preventing her from stepping into the gutter, which slopes toward the center.

On the Jersey farm there is a creamery, and many other conveniences, all of which will be duplicated or improved upon when the World's Fair stables are erected for the final test.

In all former dairy tests at international expositions the stables have not been open to the public. At St. Louis a fifteen-foot promenade extends around the barn, and the visitor may see every cow and may observe the feeding and milking. A screen protects the animals, behind which no one save the attendants can go.

Every ounce of food and water given each cow will be carefully weighed, and a record kept.

A huge silo will be built adjoining the stables. A field of twenty acres of corn is now growing near Clayton, and this will be stored in the great silo for food next summer. Alfalfa will also be brought from Colorado.

All feeding and milking will be done in the stables. The milk will be turned over to the Dairy Department, and in a model dairy in the Palace of Agriculture it will be converted into butter and cheese, and a careful record of each cow's participation in the test will be kept.

With the herd will be Flying Fox, the famous Jersey bull, owned by Thomas W. Lawson, of Boston. Mr. Lawson recently refused an offer of fifteen thousand dollars for the bull.

Among the prominent Jersey-cattle breeders who have made entries are C. J. Hood, of Lowell, Mass., and George Vanderbilt, of Biltmore, N. C.

THE CALF THAT HAD A BAD HABIT

"There is Betsey with her head stuck through the board fence, father, and the red calf is sucking her!"

That was the way the little chap put the matter as he came bounding down toward the milking-yard, his eyes sticking out with excitement. We all started that way.

"I would not have had that happen for five dollars!" father declared. He had vivid recollections of another calf that had been spoiled by getting that habit. But there was the situation—the cow, a two-year-old heifer, and a nice one, had been trying to get a nip of grass on the other side of the fence (and it is a wonder how much sweeter the grass always is on that side), and the calf working away for dear life to get what milk he could from her. Fortunately she had been milked, so there was little to be gained except a very bad habit.

The young man of the farm picked up a board, and sneaked down where the tragedy was being enacted, and laid it vigorously along the side of the calf, which gave a bound toward the barway. The heifer pulled her head out, bringing a board with it, and away she went, too.

"That does no good," father said. "It only makes us all a little more out of patience. Something else must be done."

But what was the something else? "Maybe he won't do it again," some one said. "The heifer may not stand for the calf when she has her liberty."

But she did stand, and the calf did try it over again. Then indeed something must be done. They thought of all the remedies they had heard of. The young man had read in the dairy journal that a mixture of lard and red pepper rubbed on the cow's bag would drive the calf away. But was not there some danger of blistering the tender udder this warm weather? There seemed to be some risk about it, and they did not feel like venturing it. But there might be something else besides red pepper that would taste so disagreeable that the calf would take the hint and keep away. So they tried different things; but, as bad habits will do with the rest of us, that habit stuck to the calf.

Then a stiff piece of leather was rigged up with sharpened nails sticking out, and a backing of softer leather at the back to keep the nail-heads in and to prevent them from making the calf's nose sore. This was held on by a strap over the calf's head. The idea was that the nails should prick the heifer's body when the calf began his operations, and send her along about her business. It worked fairly well, but that calf was tricky by this time. He learned to keep his head well elevated, so that the nails would not hit the heifer. Then, too, he would sneak up from behind, and reach in that way. The habit seemed to be lasting.

Then the father thought it might be necessary to sell the calf. It might be

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Live Stock and Dairy

the best way out of a bad job. But the upshot of it all was that the father made a cast-iron resolution with himself that, come what might, hereafter he would allow no calves to be turned into the same pasture with milk-cows until they were so old that they would not be likely to suck the cows.

Still more, he determined that his calves should be fed while young in stanchions. This plan would have two or three advantages. In the first place, each calf would be sure of getting its share of the milk or other ration. Many farmers have a way of feeding their calves all from one common trough. This is a decidedly bad method. Some calves eat much faster than others, and the slow-eating calves are consequently robbed. Then, too, troughs are apt to get filthy. It is much better to have a separate pail for each calf. These may be washed, and so kept clean. Then, by holding the calves in their stanchions until they are all done eating, they will not contract the habit of sucking each other, for the simple reason that they cannot, and so will not think of sucking the cows when they go out to pasture. The best way to cure a bad habit is to stop it before it begins.

E. L. VINCENT.

A DAIRYMAN'S GOOD INCOME

Dairying in the Northwest has made wonderful progress during the past twelve years. A more prosperous and enterprising set of farmers than those who attended the meeting of the Guernsey Breeders' Association at Athens, Wis., would be hard to find anywhere. What was apparently a typical experience of a successful Wisconsin dairyman was related on that occasion by H. D. Griswold, of West Salem, Wis.

"Choose a herd sire that has a mother and a grandmother and as many more relations as possible that were good milk and butter producers," advised Mr. Griswold. "Get the very best you can. Then get a scale and a Babcock tester, and know what each cow is doing. Cull out the poor ones, and keep the best. Keep up that practice with your heifers. You cannot buy good cows; there is only one way to get them, and that is to raise

have never been off the place. Six of the twenty-five are two-year-old heifers.

"I tell you this not to boast, but to let you know what I am doing to-day instead of giving you some has-been tale. I have the same little fifty-acre farm that I had in 1889, but I have built onto the barn four times, have built two silos, and the farm is increasing in productiveness. But you will say it has taken a long time, over ten years. True, but you have to work at something, and dairying is no harder than other work. The land must be kept up with some kind of stock, and what can you do better? Did you ever think that an income of two thousand dollars on a little farm in the country is better than twice that in the city? And the boys are interested in good stock, as they cannot be in scrub stock. This daily association with these dumb animals makes a man better. He has to anticipate their wants; he has to take lots of steps and do countless little things for their welfare and comfort, and these daily duties have a tendency to make him more thoughtful of others, and he will become a better husband and father and citizen."—American Cultivator.

THE BULL

Good bulls of any breed of cattle, especially of the dairy breeds, are so scarce that they should not be held too lightly nor disposed of too soon. By good bulls I mean those so rich in prepotency and breed-value that when used with even good cows they have the power to improve in the offspring the good points of the dam. Such a bull, as practical breeders know, is almost invaluable, and should be retained as long as his vigor is unimpaired.

Certainly no breeder will expect to systematically improve his herd by such frequent changes of sire as is practised by many dairymen. One has no positive assurance what a young bull may develop into, notwithstanding in his pedigree he may be royally entitled to the transmitted good of many superb ancestors.

Therefore, in selecting the young bull, his pedigree should be studied, and his own individuality, as embodying a fair representation of his type or family, be



A PAIR OF TWO-YEAR-OLD VICTORIAS

them. Then comes good feed, and plenty of it, a warm and well-lighted stable and constant, careful care.

"Now, to illustrate along this line, I will give you a little of my own experience. In 1889 I bought my first Guernsey sire. I had then one Holstein cow, one Jersey and three or four Shorthorns. I find by my books that my total receipts for butter that year were \$138.86. In 1891 I got a Babcock tester—the first one that had ever come to our town. I found that year that my cows were making three hundred and sixty-five pounds of butter each; I then had nine. I increased the number until in 1902 I had twenty-one cows. I have increased the average production of each cow to four hundred and twenty-four pounds. I have increased my receipts from \$138.86 in 1889 to \$1,937.43 in 1902. I now have twenty-five cows, and in the month of May just passed I got fifty-seven hundred pounds of cream testing twenty per cent butter-fat, with no other feed than grass and a little ensilage. These twenty-five cows are all grade Guernseys but five. I have three Jerseys and two full-blood Guernsey heifers. All but three were raised by myself on the farm, and

given due consideration. His character, or as that quality has come to be called, his temperament, can only be vaguely guessed at in his immaturity. His mature life must ripen it. We farmers are merely in partnership with Nature. By wisdom and care we may direct many of her operations and bring together influences otherwise alienated, and somewhat hasten results, but she performs her labors in her own deliberate way.

No man, if he be honest or not a fool, will claim to make heavy with harvests in a year or two a farm that had been worked down to the poverty-line. No breeder, if true, will claim to lift a scrub herd to honorable mention by one or two infusions of pure blood. We are told that Time and his seasons wait not on the sluggard, but just as truly they hurry not for the enthusiast.

Getting a great bull is therefore not a quick operation. When he is acquired, as I have said, he should be kept. The morals and temper of such an animal usually do not improve with age, and the judicious owner will never cease to regard him as a source of possible danger, and stable and handle him accordingly.

W. F. McSPARRAN.

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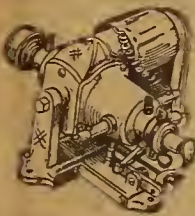
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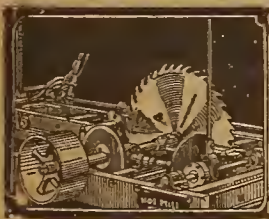
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The Grange

By MRS. MARY E. LEE

SOME THINGS THE GRANGE HAS DONE

READ BY F. A. AKINS BEFORE THE ERIE COUNTY, OHIO, POMONA GRANGE

WHEN a certain line of action has been followed long enough to fully demonstrate its wisdom, and to vindicate the judgment and foresight of the men who first indicated that line as the true one to follow, then any attempt to enumerate what has been done in that line may well fail to place the results in the order of their relative importance.

This failure will seem to occur, to some at least, under any arrangement, because what may be an important result to one person would not seem so important to another, and the achievement that appears greatest to one mind would perhaps be placed much lower by a mind whose process of thought was governed by other rules.

We therefore name some of the results accomplished by the grange, without presuming that the order of such enumeration is the best or most logical that could be followed.

First, the grange has organized the farmers of the United States as the farmers of no other country in the world were ever organized; it has taught the farmer to respect himself, and by the same token others have learned the same lesson. Among the first were the great railroads. Their lesson was headed "Interstate Commerce Law." The corporations insisted that such teaching was not in the text-books, never had been, and never should be, and to-day they are known as the granger lines! They have learned that the creature is not greater than the creator, that "governments still derive their just powers from the consent of the governed," and that organized farmers have as much influence as organizations of other men.

Encouraged by success, the Patrons next submitted the proposition that the class that paid sixty-five per cent of the taxes, furnished seventy-four per cent of the exports and raised one hundred per cent of the food-supply of the country were by right entitled to a representative in the Cabinet of the President, and there came a time when, had the then Master of the National Grange lived anywhere but in Ohio, he would no doubt have been made Secretary of Agriculture. Although he failed of the highest position, there has not been a day since that the influence of the Assistant Secretary has not been felt in the Department. Is it not a thing to be proud of that we are the first people in the world to have our occupation so honored? Did not this indeed "add dignity to labor," and teach us to "be honest, be just, and fear not?" What else could have been done that would have had the effect and influence that this had? Is it not cause for congratulation that the men called from the farm to the Cabinet have made so few, so very few, mistakes? Is it not further cause for congratulation that the business men of the country, the cool, far-seeing, level-headed fellows who have not always held that what farmers did was worth copying, now pay us the very sincere tribute of imitation, and have a Secretary of Commerce?

And why should they not be so represented? The farmer has no quarrel with any class of men who ask only what is just and right; but he found some things that were neither just nor right. He found that both producer and consumer were being shamefully, and often criminally, defrauded in the preparation and sale of food products; here again was work for the grange. Powerful corporations, backed by unlimited capital, and led by unscrupulous men, smiled serenely, and asked in effect, if not in words, "What are you going to do about it?" Adulteration everywhere, and even the adulterants adulterated! Food and drink and clothing cheapened with intent to defraud.

"While chalk and alum and plaster are sold to the poor for bread, And the spirit of murder works in the very means of life."

Chicory and clay in the coffee; copperas in tea; cheap flour in sugar; brick-dust and buckwheat-hulls in pepper; oleo for butter, and cream of tartar that showed by actual analysis seventy-six per cent of land-plaster, were some of the evils that needed correction, and were ample indication of others of the same kind. The grange took up the work of correction. The manufacturers and dealers laughed at us; their ridicule was met by indifference, their theories were upset by facts, and their dishonest

and criminal practices were put under the ban of the law, and those who violated the law were fined or imprisoned, or both, and so were taught to respect the law. The lesson may have to be repeated; we are even now only just out of the fight with the oleo men—a fight that was won by the grange and the National Dairy Union, and both these organizations came out of it with greater confidence in themselves and greater respect from their opponents. The history of the pure-food laws in our state is well known to every Patron; and the success that has been reached in Ohio is due to the work of the grange, and the best men who have held the office of Dairy and Food Commissioner have been Patrons. The Rawlings Law is another example of grange-work in Ohio.

In 1891 the National Grange took up the delivery of rural mail as one of the benefits to which the farmer was entitled; this action was in line with previous discussion and resolutions, and was asked as a matter of justice and right. After years of effort the Legislative Committee of the National Grange secured the first appropriation, thirty-five hundred dollars.

The experiment so completely justified the predictions of the men who had urged the measure, that the appropriation was increased from time to time, until we now use millions of dollars each year, and there is room for more. It is estimated that when fully developed the system will require about twenty-four thousand carriers, and cost forty million dollars per annum.

Every mail-box at the farmer's door tells what the grange has done "to enhance the comforts and attractions of our homes;" every carrier's wagon is a public witness to the faith and tact, patience and ability, of the leaders of the order; every new route means homes made brighter by being in closer touch with other homes.

There are, then, these four stars in the grange diadem—the correction of railway-traffic abuses, the Secretary of Agriculture, the Pure-Food Laws, and the delivery of rural mail—a quartet of achievements that are the result of years of hard, earnest, persistent work, years in which self was not considered, ease was not consulted, and failure was not thought of, by the men in whom the grange reposed a trust that was never betrayed. It is an honor to know these men! It is a pleasure to enjoy the results of their labor!

A recent issue of "The Ohio Farmer" states truth tersely when it says: "The grange not only cooperates with legitimate progressive enterprises, but it has pioneered and succeeded in more good work for the American farmer than all of its contemporaries put together. It forges ahead, it makes unpopular ideas popular. The secret of its final success is that it has learned in the long years of its experience with all sorts of schemes to judge what is best to do, what is possible and reasonable, and then to go after it with steady, determined, level-headed persistence, that gradually melts away opposition, and at last wins." Its motto is a prophecy; it will endure.

LECTURERS' INQUIRIES

From lecturers everywhere come inquiries as to making the programs useful and interesting. There is not manifest a spirit of complaint because of the unwillingness of members to perform their duties, but rather that so little material is available for preparing a paper of worth and interest. The grange that expects a lecturer to evolve bright, snappy, interesting programs from a few dog-eared school-books and current literature is imposing an impossible task. Books of general interest there must be, wherein the essayist may find attractive and authentic data for the paper. They must also be available for those who wish to discuss the subject or gain more extensive information. We would quickly discharge the painter who confined his brush to one spot, and neglected other parts of the house. Do we not, by confining ourselves too closely to the same worn topics, unconsciously imitate the painter? Were books scarce and high, or the desire for wider knowledge lacking, then would the task be hard. But books are abundant and cheap, and there is a consuming desire to know. A number of lecturers have asked that programs be prepared, and references cited, saying that their granges were willing to purchase books. Such a plan is under headway. We sincerely hope, whether these or other topics are used, that the grange will not be so short-sighted as to neglect starting a small library this fall, or adding to the old one.

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Pattern We have the spoons in two beautiful patterns, No. 60 and No. 14. You can make your choice of pattern. Where no choice is named we will fill orders with our selection. We also reserve the privilege of substituting one pattern for the other if the supply in any particular initial is exhausted. We can thus fill all orders the same day they reach us. It is impossible to describe the beauty of these spoons, and the illustration falls far short of conveying a full idea of their attractiveness. In finish they are perfect, and will render complete satisfaction.

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We absolutely guarantee every piece of this ware to be exactly as it is described and to give entire satisfaction or your money will be cheerfully refunded. We are sure it will please you.

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The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

DRAINAGE LAWS

C. L., Michigan, makes inquiry in reference to the drainage laws of that state. I would advise him to consult an attorney at his home, as the answer would not be of general interest.

ANSWER TOO LONG

G. W. L., Bridgewater, Mass. Your inquiry is too long, and would require more space to give the answer than can be had in a department of this kind.

ANONYMOUS LETTERS

G. E. M., Pennsylvania, asks: "What is the law in regard to anonymous letters, and what is the penalty for writing one?"

I know of no law relating to anonymous letters, neither is there any penalty for writing one. It is generally considered a cowardly act, but the law makes no provision for the same.

ENFORCEMENT OF CONTRACT

D. K. submits the following: "A., B. and C. had a sister who was demented. They all agreed to keep her for a year each in turn. She would not stay with B. and C., so A. had to keep her all the time. Could A. come in for pay?"

The contract between A., B. and C. did not provide that they would pay for the keeping of their demented sister, but merely provided that they would keep her for a year each in turn; therefore, if she declined to stay with B. and C. without B. and C. consenting or agreeing to pay A., A. could not recover.

STOCK BOUGHT AT PUBLIC SALE

J. R. J. inquires: "If A. bids in a number of cattle or hogs at a public sale, and they are struck off to him, and he comes after them the next morning and finds one or more of them gone, who is the loser, A. or B., it being the custom to go after them the next morning?—Can a person shipping a car of hogs to Chicago sell them himself, or will he be obliged to have a commission-merchant sell them for him?"

It seems to me that when the hogs or cattle are knocked down to the purchaser that the title passes to the purchaser, and the seller becomes merely an agent of the purchaser to take reasonable care of the stock until he calls for it, and if the stock is stolen or goes away without B.'s negligence, A. would be the loser.—I know of no reason why a person could not sell his hogs himself without putting them into the hands of a commission-merchant. There might be some rules in reference to the stock-yards at Chicago and the railroads running into them that would make it highly important to give them to a first-class commission-merchant to sell.

LIEN OF FOREIGN JUDGMENT

C. E. J. gives this query: "In an action for debt, both parties being residents of Maryland, if the plaintiff obtains judg-

ment, and records it in Washington, D. C., where the defendant's property is, does it become a lien on his real estate there? On appeal, when should the case be tried in the county court, when the defendant resides in Washington. If the defendant fails to appeal within sixty days, is the case a closed incident so far as he is concerned? Has he no further redress? Is there no way he can bring the case before the court?"

As I understand it, the District of Columbia is in the same relation to Maryland as any other state would be, and judgment acquired in one state cannot be made a lien on the realty in another state by merely filing it, etc. Of course, on appeal the case would have to be tried in Maryland. If the party wishes to enforce judgment upon property in the District of Columbia, an action must be brought in the courts of that place. Usually, if a person does not appeal a case within the time limited by law he waives his right in that direction.

BUILDING AND LOAN ASSOCIATIONS

Q. W., Akron, Ohio, wants to know: "Are building and loan associations safe places in which to invest money?"

Yes. Generally speaking, there are but few societies or corporations that offer as safe a place for investment as building and loan associations. The reason for this is that all funds of the associations are invested in first-mortgage securities. I cannot agree with Mr. Greiner, in the issue of July 15th, when he says he cannot recommend them for safe investments. Of course, like every other institution, their safety depends somewhat upon the people in the organization. It must not be forgotten that there are, at least in Ohio, two kinds of these associations. One is the local, or home, associations, and the other national, or foreign. What Mr. Greiner says in reference to such institutions being usually organized for the interest of officers, etc., applies almost exclusively, if not exclusively, to the latter class. Almost twenty years' experience with a home association convinces me that they are honestly managed, and are an exceedingly safe place for investment. Of course, whenever any one promises an exceedingly high rate of interest, that is an institution to fight shy of, it makes no difference whether it is a building and loan association or any other kind of corporation or business. In Ohio and some other states building and loan associations are now under state supervision, yet the safety and solidity of each association must depend very largely upon the men who are in charge of it. A great many associations have contingent funds large enough to meet ordinary losses, and this would necessarily be absorbed before the funds of any depositor could be affected. In Ohio five per cent of the net earnings must be set aside for this purpose.

The Family Physician

By ROBERT B. HOUSE, M.D.

AN OVERLOOKED CAUSE OF PULMONARY DISEASE

The medical press, and even the secular journals, are loaded with brilliant and exhaustive essays on the causes, prevention and rational treatment of the various forms of tuberculosis. One very dignified and profoundly scientific quarterly is strictly devoted to a study of this important subject. The aetiological factors, or causes, and prevention are the prominent topics of discussion, and yet none of the writers seems to give more than a passing thought to one of the foundational and most prolific causes of this dreaded scourge. This cause is, in a word, non-ventilation of the lung-tissue. Babies cry. It is their primal source of self-defense, their one birthright and physical salvation. Crying aerates the lungs, and circulates the oxidized blood. Soothing-syrups kill because they prevent Nature's vital resource—crying. Every child should be systematically indulged, and even encouraged, in crying; not in the convulsive shrieks of actual pain, spasm of colic or tantrum of temper, but in that wholesome and hygienic, but at the same time vigorous, effort which thoroughly and repeatedly expands its little lungs to their full extent. The quiet, passive, non-crying child invariably has "weak," because only

half-developed, lungs. All the effeminate and "goody-goody" children live colorless and washed-out lives, usually dying young of some form of wasting disease, because they do not breathe sufficiently. Personal ventilation is far more essential, although much less talked of, than ventilation of the room or dwelling. Nature will tolerate and successfully antagonize a pretty bad specimen of air if there is only plenty of it utilized.

Unused air-cells collapse, then they slowly degenerate. In a short time they furnish a favorable culture-field for the enterprising "bacillus tuberculosis," which loses no time in "catching on." Everybody inhales the germs every week, and at times every day, of their lives. Healthy lung-tissue in active and regular use rejects and ejects them. But unused cells furnish them the very enjoyment they are seeking, and when they find nooks, nests and corners to which little or no oxygen finds access, they lose no time in starting a colony. The athlete and those who are accustomed to robust exercise out of doors develop sound and roomy breathing-apparatus. Confine such a person to the house, and make him sedentary in his habits—result, unused lung-tissue, and almost invariably a retrograde movement which ends in tuberculosis and death.—The Dietetic and Hygienic Gazette.

A Trust Builder in Knee Trousers

ROY DUDLEY is the "Promoter" of a "Trust"

Composed of school boys in a Virginia city. In organizing his "combine" he displayed the energy and ingenuity of a Morgan. His dividends amounted to \$38.20 the first month.

A few months ago young Dudley started to sell *The Saturday Evening Post*. He got permission to call upon the employees of two department stores and from 45 of them secured orders to deliver the magazine. The next day he secured 30 more orders from business men. His chum, "Taffy" Wood, became a little envious and wanted to do the same thing, but young Dudley convinced him that to do so would mean "ruinous competition." Instead, he offered to re-sell copies to "Taffy" and to turn over to him a part of the customers already secured, with the understanding that he would get a certain number of new customers. Then he made the same sort of a bargain with Taffy's younger brother.

Three other boys had started to sell *The Post* before the "combine" was organized. He asked them to join his combination, but they refused his terms and serious trouble was threatened. Next week Master Roy secured 14 new customers in the territory in which his rival was working. Then he offered to "absorb" his competitor by giving him these new customers, provided he would get some more new ones and thereafter buy his copies from the "monopoly." The remaining two boys "compromised" and started work under Roy's direction the following week.

Then Dudley wrote to the publishers explaining what he had done, and offered to place a standing weekly order for three months, provided no new boys were appointed during that time. Within two months he was selling 350 copies a week. One week he sold a thousand copies. This is the record of a boy in knee trousers, ten years old.



IF YOU WILL TRY IT we will send the copies and everything necessary, including *A Dainty Little Booklet*, in which twenty-five out of more than six thousand bright boys tell in their own way just how they have made a success of selling *THE SATURDAY EVENING POST* outside of school hours.

Some of these boys are making \$10 to \$15 a week. You can do the same. NO MONEY REQUIRED TO START. We will furnish ten copies the first week free of charge, to be sold at five cents a copy. You can then send us the wholesale price for as many as you find you can sell the next week.

\$225 IN EXTRA CASH PRIZES will be distributed Next Month among our boys

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Where shall you educate your daughter? Shall she go a thousand miles from home and spend a thousand dollars a year, or may she find a college offering equal advantages nearer home and at less than half the cost?

Shall she choose a college of a thousand students, or one where the number is limited in order that each young woman may come into direct personal contact with the members of the Faculty?

Shall she go to some Conservatory of Music which does not offer general culture, or shall music become part of a complete and symmetrical education?



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3. A standard equal to that of the best colleges.
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Terms, \$300.00 a year, with an extra charge of \$90.00 for private lessons in music and art. Visit The Western before you decide, or send for copy of "Undergraduate Life at The Western."

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A BRIGHTENING-UP DAY

HAVE you ever thought what shine-principle there is in Nature? Make a hurried list of the things that shine, from the great sun down to the wee twinkle in a baby's eyes. The glisten of the snow, the sparkle of the dew, the gleam of perfect teeth, the iridescence of a fish's scales or a bird's plumage, and the jolly polish of a sunflower's petals—they all shine, and they were made to shine for man's sake and service.

In our spirits we are dependent more than we may realize upon this shine-principle, and the woman who keeps home bright—to use a much-worn phrase in an emphasized way—does a greater thing than “he who taketh a city.” But to get down to practicalities and to detail, have you ever included a brightening-up day in your housekeepers' and home-makers' calendar? No? Then just try it, on this wise:

Provide yourself with chamois-skin, old bits of flannel, soft cheese-cloth, an old tooth-brush, some old-fashioned bath-brick, some whiting, ammonia and benzoin or gasolene. Now begin with the parlor. What things are there in that room that were made to shine and have lost luster? (Mark you, I do not mean for you to “clean house.” This task is a light one that you may do on some rainy day when you are not “up to” great things and are free from callers.) Let us see. There's the brass rod at the back of the Morris chair, the piano-pedals, the brass rim of the big lamp, the ornamental handles of the bookcase drawer, the small bit of beveled glass in that wee corner cupboard, the brass rod at the grate, the andirons, a clear glass vase, and some other ornaments that are dulled by the ever-accumulating film of dust and smoke. Shine 'em up!

Go through the house in this way. Your task may multiply on your hands so that it will take two days instead of one. You may give the silver a surprise, the tops of the salts and peppers and the copper rim of the faithful old kettle. The bath will take some strength, and the faucets a good deal of patience. Then you may see a shelf-paper that needs to be renewed, a shabby ribbon in a tidy that should be ironed or replaced, a row of books straightened and set in better arrangement—all these things that insensibly get out of order and taken as a whole make a home less bright than it might be. Try it, and the result will amaze you in more ways than one.

ADA MELVILLE SHAW.

ONE OF INDIA'S SACRED TREES

The first thing that attracted my attention when I landed at Bombay, India, was the luxuriant vegetation on either hand. I arrived on New-Year's Eve, and everything was surpassingly beautiful. (The winter season there is not cold, as it is here, but more nearly resembles our summer, while their summer months are exceedingly warm and dry.) Fruit-trees, ornamental trees, climbing, clinging vines with brilliantly hued blossoms, shrubs and flowers—all appeared to conspire to extend me a happy greeting and wish me a happy New-Year. I knew these ignorant Hindus think the gods reside in the trees, and I could not wonder at it much, but when I would see the natives bow down to these objects, my heart became sad, and I wanted to be able to tell them of our true God. I wished I could speak their language, so I could tell them at once.

The banyan is one of the most wonderful of all the sacred trees. It is often called the Indian fig; in fact, it belongs to the same general family as the fig proper. The branches of this tree grow out from the trunk about twenty feet, then bend down, and continue growing in this downward direction until they touch the earth. There they root themselves and send forth new branches, which first ascend, then bend downward until they once more are rooted in the ground. The branches continue to follow this same course—rising, descending and rooting, and again rising, and so on—until the “tree becomes like a tent supported by many columns.”

The ground under the tree is considered sacred, as well as the tree itself, and the Hindus often hold their festivals to their gods in the friendly shade.

I was much surprised to see that the fruit of the banyan was so much smaller than the real fig. The leaves are so much alike, I expected the fruit to be, too, but found that it was no larger than a cherry. The leaves are large, and are used as plates by the devout worshipers, who come to do homage to their gods under its friendly shade. Sometimes some of the Brahmans, who are supposed to be very holy (but who are not), come and live under these trees, and the people, who think them almost gods, bring them food. How sad it is to know that these men think that by getting away from the world and dwelling thus alone they can make themselves better. We know that only our Heavenly Father can make them or us better. When they do live under the trees, however, they take great pride in directing the drooping branches so they will touch the ground in the best place, and thus train the tiny upward growers to ascend symmetrically. I have seen one of these banyan-trees large enough to shelter six hundred persons at once, and it is said that they can be found even larger than that.

ELLA BARTLETT SIMMONS.



Around the Fireside

THE DAFFODILS

Ah, sweet was the air on that fair, tranquil eve
(E'en now at the mem'ry my lonely heart thrills!)
When I walked with my beautiful love, Genevieve,
Down the old garden path 'twixt the bright daffodils!

Ah, the long years have come, and the long years
have flown,
And brought with them sorrows and pleasures
and ills,

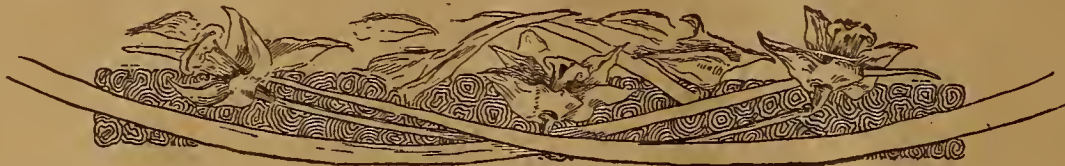
But ne'er has my spirit outlived or outgrown
The love that I learned 'mid the dear daffodils!

Dear blossoms so full of the breath of the spring,
Suggestive of meadows and murmuring rills,
There's one heart that loves you, one friend that
would sing

A song in the praise of the sweet daffodils.

And oh, thou soul-blossom in maidenly guise,
In mem'ry my heart in thy dear presence thrills,
And once more, my darling, I see in your eyes
The love that I lost 'mid the dead daffodils.

—Lida M. Keck.



TO POULTICE A FINGER

It would seem that any person might poultice a finger if only sure what kind of a poultice to use.

Observation shows that very few housekeepers know “just how” to put on a poultice so it will stay in place. A piece of coarse cheese-cloth, a package of absorbent cotton and a roll of inch-wide surgeons' bandage should always be at hand. No matter what the dressing for the finger is to be, the method of keeping it in place is always the same, unless the injury is serious and the hand is not to be used.

If a powder is to be used on the finger, sprinkle it on, cover with a small piece of cheese-cloth, and over this put a piece of the cotton, putting it on so it will cover the top of the finger, and from there fold it closely about the injured spot. Take one end of the bandage, and place it where the finger meets the palm of the hand; carry it up over the top of the finger and down the back to the hand, then turning there, carry it back over the top of the finger to the starting-point. Now carry the bandage to the top of the finger, and from there begin winding it smoothly about the finger until the palm is reached. Do not hesitate to use the bandage liberally. Leave several inches of the bandage, and cut it through the center with the scissors. This will give two ends to tie around the finger. A poultice thus adjusted will not slip around uncomfortably or come off easily.

If it is to be a wet poultice, put on the cheese-cloth, then a piece of the cotton dipped in the solution to be used, with a dry piece of cotton over it. Such a poultice, if a liberal supply of cotton is used, will hold the moisture for a long time. If any material such as crackers or flaxseed is to be used, first put on the cheese-cloth, to keep this from adhering to the wound, then the poultice, and cover with dry cotton. The cotton will ward off many a little knock which would make the flesh smart. If the wound should throb, the bandage should be loosened. Bandages may be made from old linen handkerchiefs.

INEZ REDDING.

NUTMEG-MELON MANGOES

Remove a natural section from each melon, and pare away the rind from the entire surface. With a teaspoon take out the seeds. Fasten the sections again in place, each to the melon to which it belongs, with a stitch or two, using a needle and cotton thread. For



NUTMEG-MELON MANGOES

each four or five melons pare a dozen peaches, and cut the pulp in slices. Add a few cherries, if at hand, one fourth of a cupful each of preserved ginger and orange-peel cut fine, and mix with one teaspoonful of ground cinnamon, one half teaspoonful of mace and one half teaspoonful of coriander-seed. Fill the melons with this, and sew in place the pieces that were removed. For seven pounds of the prepared melons make a syrup of one pint of vinegar and four pounds of sugar. Add also one half cupful of pickling-spices, or one half cupful of cinnamon-bark, blades of mace, cardamom-seeds, celery-seeds, cloves, tiny red-pepper pods and bay-leaves mixed. Let the fruit, covered, cook in the syrup until the melon can be easily pierced with a skewer. Set aside in a jar until morning, then drain off the syrup, heat to the boiling-point, and return to the melons. Repeat twice, then reduce the syrup so that it just covers the pickle, and set aside.—Boston Cooking-School Magazine.

FORTUNES ON FINGER-ENDS

The costliest thimble in the world is undoubtedly one possessed by the Queen of Siam. It was presented to her by her husband, the king, who had it made at a cost of rather more than fifteen thousand pounds. This thimble is an exquisite work of art. It is made of pure gold, in the fashion or shape of a half-opened lotus flower, the floral emblem of the Royal House of Siam. It is thickly studded with the most beautiful diamonds and other precious stones, which are so arranged as to form the name of the queen, together with the date of her marriage. She regards this thimble as one of her most precious possessions.

Not long ago a Paris jeweler made a most elaborate thimble to the order of a certain well-known American millionaire. It was somewhat larger than the ordinary size of thimbles, and the agreed price was five thousand pounds. The gold setting was scarcely visible, so completely was it set with diamonds, rubies and pearls in artistic designs, the rubies showing the initials of the intended recipient. This thimble was made as a birthday present to the millionaire's daughter,

who can now boast the possession of the second most valuable thimble in the world. Her father was so pleased with the fine workmanship it showed that he ordered another, but a much less expensive one, to be made for presentation to his daughter's school companion and bosom friend.

Five or six years ago a jeweler in the west end of London was paid a sum of nearly three thousand pounds for a thimble which the pampered wife of a South American Croesus insisted on having made for her. This was one mass of precious gems, diamonds and rubies, which as thimble adornments seem to almost monopolize feminine taste, largely predominating.

That eccentric prince, the late Maharajah Dhuleep Singh, never did things by halves, and one of the most beautiful and costly thimbles ever made was that which was supplied to his order as a present for a great lady in Russia. The price of this ran well into four figures, and the gems set in it were all pearls of great value and no less beauty.

So were those in a highly treasured thimble which on the occasion of one of his visits to Europe the late Shah of Persia presented to a lady whose guest he was for a few hours. In the words of the delighted recipient, it looked like a cluster of glittering gems, which in reality it was, save for the gold in which they were set. An expert in precious stones valued this thimble at fifteen hundred pounds.

There are thimbles of no intrinsic value, but which, on account of the famous women to whom they have belonged, would command very high prices if submitted to public auction. In the possession of the wealthy Mrs. Vanderbilt there is a thimble which was formerly used by Queen Alexandra. It is an extremely dainty article, made of gold and enamel.

But apart from its associations, it is not of much greater value than another thimble owned by the same American lady. This is a very serviceable-looking article, in solid silver, but very small. Its value lies in the fact that it was the property of the late Queen Victoria in the days when she was only a girl of fourteen. From its appearance the late sovereign knew how to ply her needle in her youthful days.

The first thimble ever made was the one presented in the year 1684 to Anna van Wedy, the second wife of Hillaen van Rensselaer, and the thimble is therefore a Dutch invention. In making the presentation, the giver, Van Benschoten, begged the lady to accept this new covering for the protection of her diligent fingers.—The Queen—(London, England).

EBEN HOLDEN REDIVIVUS AND A PIE

“I remember once,” said Uncle Eb, “I praised a woman's pie. We were over in Canada buyin' cattle. The woman she asked me if there was anything I'd like to hev fer my dinner. I told her that I was very fond o' berry pie, so she made one. It came on the table in a pan. I didn't know what 'twas, er mebbe I could hev made an excusc an' got away. Suddenly the woman began to cut it.

“I've made that pie you asked fer,” she said. “It took me a long time, but here 'tis, an' I hope you'll like it.”

“The pie was about three inches thick, an' there was only jest a leetle streak o' red stain through the middle o' it where the berries oughter be.”

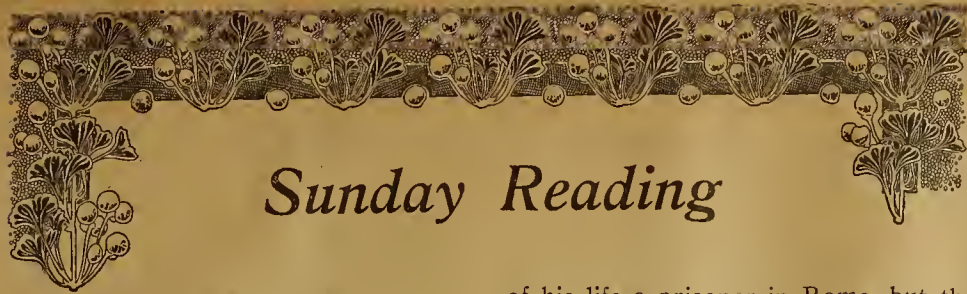
The old man paused a moment.

“Wall,” he continued, with a sigh, “o' course I hed to eat that pie. It was the greatest obstacle I ever encountered. Fer a minnit I felt as if I was ketched in a bear-trap. But I looked as pleasant as possible, an' went to work on that piece o' pie. I no sooner got through than it went to work on me. There wa'n't much left o' me next day. I lay there sick abed, an' the good woman she brought up another pie. She wanted to please me, an' I hedn't the heart to tell her what I thought o' her bakin', but she pressed it on me.”

“No more, thank you,” says I.

“I thought you said it was good,” says she, with a look o' disappointment.

“Madam,” says I, “the pie is good, but I ain't good enough to eat it. I ain't even joined the church yit. Give me a leetle more time fer preparation.”—Irving Bacheller, in Leslie's Monthly.



Sunday Reading

THE ONE-TALENT MAN

While some with talents ten begun,
He started out with only one.
"With this," he said, "I'll do my best,
And trust the Lord to do the rest."
His trembling hand and tearful eye
Gave forth a world of sympathy.
When all alone with one distressed,
He whispered words that calmed the breast;
And little children learned to know,
When grieved and troubled, where to go.
He loved the birds, the flowers, the trees,
And loving him, his friends loved these.
His homely features lost each trace
Of homeliness, and in his face
There beamed a kind and tender light
That made surrounding features bright.
When illness came, he smiled at fears,
And bade his friends to dry their tears.
He said, "Good-by," and all confess
He made of life a grand success.
—Presbyterian Journal.

THE FOUR-O'CLOCK

THIS plant was first discovered by Europeans in Peru, and hence is sometimes called "the marvel of Peru." It is also called "the afternoon lady." It belongs to the genus "Mirabilis"—that is, wonderful. Its flowers are usually white, but sometimes yellow or red. They are star-shaped, and grow upon a branching, treelike shrub. Their peculiarity is that they remain closed nearly all day, no matter how brightly the sun shines, and then open suddenly about four o'clock in the afternoon. If the day has been unusually warm, they wait until five, or even six, o'clock.

Now, some flowers bloom only in the dark, as the "cereus grandiflorus," popularly known as "the night-blooming cereus." Some close at night, and open again when the sun begins to shine. But this wonderful plant waits until the sun is near its setting, and then, like a thermometer marking the degree of light and heat to which it was made to respond, opens its petals.

This plant, which is peculiar to the Pacific coast, we found growing wild in the foot-hills of the Santa Clara Valley, California. We transplanted it into our garden, and have been deeply interested in watching its prompt coming to time from day to day. "Is it four o'clock?" some one asks, and the answer is, "Look at 'the afternoon lady.'" If she has come out from her seclusion, and is arrayed in all her glory, like the lilies of the field, we know the time as well as if we had heard the clock strike.

I have not been able to find any explanation of the peculiarity of this wonderful plant. It seems made to respond to certain conditions of temperature, and to be prompt in its response. It resists the wooing of the midday sun, but yields to his attraction when he is near his setting. It has, however, suggested to me two practical thoughts:

First, how faithful what we call nature, as distinguished from man, is to the laws of its being. When God made the four-o'clock, thousands of years ago, he said to it, "You are not to bloom in the dark, like the cereus, or to open your petals to the sun as soon as he rises, like the morning-glory. You are to wait all through the shining hours—wait until late in the afternoon, when many flowers that have been open all day will begin to close, and then you are to expand." Though that would have seemed a strange command if this marvel of Peru had been able to think and reason, it did just what it was told to do, and so have its descendants ever since, even unto this day. There has been no disobedience, and hence no degradation, in the material universe. Man alone has rebelled, and fallen from the estate in which he was created.

Second, we learn that the fullest development of life does not always come when the conditions seem most favorable. We would expect this marvel of Peru to appear in all its glory at noon-day, when sunshine is fairest and brightest. And so we think of middle-life, when body and mind are in their fullest vigor, as its most glorious and joyous period. But often—always, indeed, when the heart is in harmony with God—its graces expand when the sun is near its setting. Yes, the brightest hours of a true life are near its close. Who has not wondered at the light which glows in the face of many an octogenarian? He is the four-o'clock of the plants of righteousness. Such a four-o'clock was the Apostle Paul. He spent the last years

of his life a prisoner in Rome, but they were evidently his happiest years. He was visited there by Christians from all parts of the world, many of whom had been converted under his ministry. He wrote letters to the saints in Asia Minor and western Europe. He had access to the innermost life of the imperial city, and won converts in the household of the most degraded of the Roman emperors. No wonder, then, that he wrote to Timothy, "I have finished my course." And such a blessed consummation may we all have who believe in Jesus.—Obadiah Oldschool, in The Interior.

CUTTING TROUBLES SHORT

A little boy gave a much-prized toy to a child visitor to play with. In a few moments it was returned to him in pieces. The tears rushed into his eyes, and for a moment there were signs of a tempest brewing. Then, with a brave show of courage, he quickly thrust the pieces out of sight behind an old chest, saying, "Well, I duss it tan be patched," and went on playing.

We do not all take our troubles so philosophically, nor cut them so short. What a blessing it would be if we did! And why shouldn't we? It is largely a matter of habit, this way we have of fondling our aches and pains, of hugging our troubles, and making much of every disquieting trifle. Our lives are too short; we cannot afford to devote so much time to long-drawn-out misery. Let us accustom ourselves to cutting short whatever hurts—to stopping quickly when we are prone to mope and fret. It is only stretching the troubles—lengthening, widening, deepening them—to coddle them so. We cannot get entirely away from all vexations and sorrows—and it is best so, for we would not appreciate the life and brightness of summer if it were not for the dull, dismal winter-time—but we can shake off the morbidness, and curb the restless, complaining tongue; in truth, we can cut our troubles short if we go about it determinedly.

If you are afflicted, do not go around with sad resignation stamped upon your countenance, grasping the first opportunity to pour your troublous story into the ears of an unwilling listener. Rest assured there will be no willing listener. For the sake of courtesy, and from innate kindness of heart, some will lend a patient ear to your recital; but while they pity you, they also weary of you, and turn away gladly to some brighter face. Just decide quickly to lay your troubles aside and see if they, too, cannot be "patched." Shut your doors to useless worry and regret. If your toys are broken, your plans upset, forget it before the frowns have left a furrow. Let us all cultivate a spirit of light-heartedness, a faculty for getting down to the bottom of things and sorting out the unnecessary burdens. Let us be

"A happy-tempered bringer of the best
Out of the worst; who bears with what's
past cure,
And puts so good a face on't—wisely
passive
Where action's foolish, while he remedies
In silence what the foolish rail against."

We are all frail, all human, and have much in our lives to regret; but nursing a bitter memory never fails to strengthen and embolden it. Just put the dark spots, the dull heartaches, away in some shadowed corner out of sight, and take up a glad, joy-bringing hope to cherish and dream over. Hope helps us through every difficulty. It makes a bridge across the widest, deepest chasm. Then why not use it as a weapon against the stinging grievances, regrets and worries, and just cut them short with its shining blade? We will not get old and wrinkled half so soon, nor be "laid on the shelf" because our backs are overloaded with worthless baggage, but will awake some fine morning with a strong realization of what true living means; of the splendid opportunities, the sweet friendships and glowing expectations which fill it so full that there is no room for miseries to intrude their gloomy features, and stopping them short at the doorway will become a fixture—a habit with content and happiness in its wake.

MAE Y. MAHAFFY.

"THE LACK OF IT"

It is not the Christianity in church doctrines that breeds skeptics. It is the lack of it in individuals who are self-labeled "Christians." L. M. K.



EARLY MADE CHRISTMAS GIFTS

THE amateur in photography can do wonders in the making of Christmas gifts that cost but little.

prints, mounted them on white cards strung with ribbon to match the prints, leaving the fourth card at the bottom for the calendar. The ribbon was tied at the top in a pretty bow. If preferred, a cord and tassels could be used. If one does not care for blue, use black-and-white prints on gray mounts, and tie them together with red ribbon. When



If one can use a camera, go around the favorite walks or roads of your town, select spots,

these are well printed they look like very pretty little etchings.

NEEL A. TURNER.

A CLUSTER OF SMILES

PRAYER FOR THE HEATHEN

"A penny and a prayer" was the inscription on a mite-box given four-year-old Mary by her Sunday-school teacher.

The little girl took it home, and a few days later, when a friend called to see her mother, she immediately presented her mite-box. When the lady responded with a penny, she dropped on her knees, and began her childish prayer "Now I lay me down to sleep."

AN INQUISITIVE LITTLE GIRL

Upon seeing the colored servant leave for church, the little girl of the household was heard asking, "William, is the church you attend a black church?"

HEAVENLY TRANSPORTATION

At a revival in a Western church a good sister was known to rise during the meeting, and solemnly declare, "When I die I expect to go to heaven as straight as a shingle."

MORE LIGHT

A small boy who was out with his camera one cloudy day expressed the wish to his sister that "the sun might get a new wick." E. C.



the same shade. Mount them separately on gray cards, and tie with pretty ribbon in booklet form.

If the gift is for brother or sister, take a view of the house for the first card, and of different rooms for the succeeding cards, until the home is all there.

That the gift may serve as a daily reminder of home, select a card fourteen by eight inches. Mount a two-inch calendar in one corner, then group each view artistically—the home, the library, the favorite cat, horse or dog, a bit of the garden or grape-arbor with the old father or mother as the central figure—and print under it all "Home, Sweet Home." Punch holes in the card two inches from the end, and run in a cord with tassels, by which to hang it up.

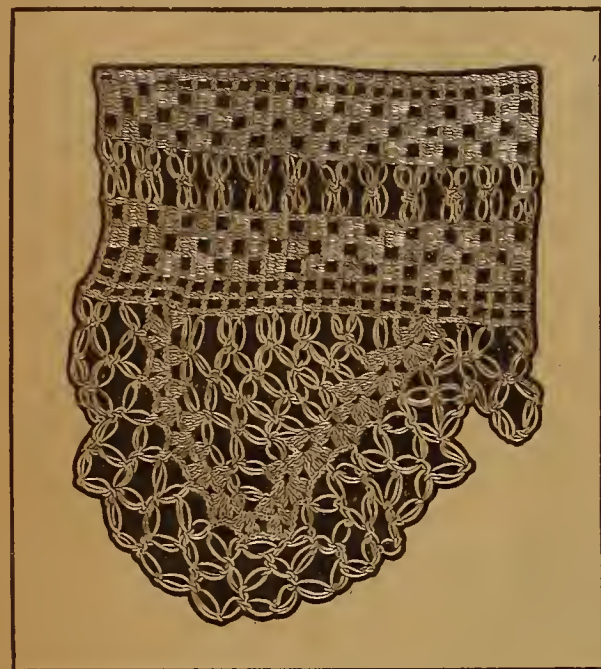
The daintiest calendar of all I made for a young girl to give to a dear friend. I took one view of her sitting by the river, another in which she was dressed in quaint, old-time costume, and still another of her in her favorite room. These I finished in deep blue



LESS "HOG AND HOMINY"

READER of FARM AND FIRESIDE writes from her home in Suffolk, Va.: "I am very much taken with an article, 'Take Tea in the Open,' by 'A. M. S.' in your issue of July 15th. Will 'A. M. S.' kindly tell us how her dishes are prepared? What kind of nuts did you use, and what quantity to a good-sized head of lettuce? How are salted wafers prepared? May we have the seed-cake recipe? I am my own cook, and would be glad to know how to prepare light dishes. I think that in this section of the country we eat more hog and hominy than is good for us."

"A. M. S." responds with alacrity. NUT-AND-LETTUCE SANDWICHES.—Foretell for these by having bread old enough to be sliced very thin and butter soft enough to spread very easily. (Some people do not know how to prepare thin bread and butter nicely.) Always use butter sparingly in this dainty. Spread your first slice before cutting the bread. Cut the second slice, and spread on the lower side. The secret of this little trick is that the two slices will then lie edge to edge, daintily, curve conforming to curve. Mince in your chopping-bowl a handful (measured after shelling and blanching) of peanuts, English walnuts, almonds, or any other nuts you have handy. If



KNOT-STITCH SCALLOP LACE

you like bland flavors, mix the nuts with a little rich cream seasoned with salt and pepper; otherwise, use salad dressing. You may shred your lettuce fine, or simply tear the leaves to fit the slices of bread. Lay a lettuce-leaf on each slice, spread with your prepared nuts, put on another covering of lettuce, squeeze a drop or two of lemon-juice on that, cover with the second slice of bread and butter, pat lightly together, and it is ready to eat.

THE SALAD DRESSING.—The following dressing will keep for a week or more, and suits nearly every palate: The yolks of two eggs well beaten, one level teaspoonful each of salt and pepper, two teaspoonfuls of white sugar, one teaspoonful of plain ground mustard or two of prepared mustard. Mix these until perfectly smooth, then add four tablespoonfuls of vinegar. Drop into it one tablespoonful of butter—never mind if it is in a "chunk." Put it all into a small double kettle (or manufacture one by placing a small vessel inside a larger one), and heat, stirring rapidly and steadily until the dressing is of the consistency of cream. When you have learned how to make this you will be able to make it more or less peppery, salty, sweet or sour, just as you may prefer it.

SALTED WAFERS are merely very thin, crisp, long, narrow crackers, salted. Your grocer can supply them. They cost from ten to fifteen cents a package.

SEED-CAKE.—This is the very old recipe, brought from England, and now copied from a yellowed manuscript book: One quart of flour, four eggs, two cupfuls of sugar, one half pound of butter, caraway-seeds to taste, one cupful of sweet milk, three teaspoonfuls of baking-powder. Get the seeds of a grocer or druggist. Children like "caraway-comfits" scattered on top of cake. A. M. S.

WHEN A CHILD SWALLOWS A TACK

A friend recently wrote of the death of a child from swallowing two carpet-tacks. The mother gave the child castor-oil at once, and just here was the fatal error, for the oil brought on such violent movement of the intestines that the tacks were forced into them and not removed. Some years ago the writer swallowed three carpet-tacks, and old "Auntie" advised chewing slippery-elm bark into a pulp, and swallowing it. The treatment was kept up continuously for three hours, and then every little while until the tacks passed the bowels. Where a child is too young to chew the bark, stir the ground bark into a mush with warm water, and feed it in this way, giving at least a cupful before stopping, or within an hour. Keep giving this every two or three hours until the foreign substance is ejected. The slippery-elm forms a coating around the object, and if it is tacks, glass or other sharp articles, prevents cutting or puncturing; if lead or copper, it prevents poison. MAY LONARD.

The Housewife



"STRAW MEN"

It's only the people of straw we fight,
And joys that we hope to get,
That make of our living the wrong or right,
And cause us to smile or fret.

It's ever the love that we cannot gain
That seems to our hearts the best;
And it's always the kiss that we miss, my dears,
That's sweeter than all the rest.

The present is all that is ours, you know,
To-morrow can ne'er be sure;
It's mostly the pain that we fear will come
That medicine cannot cure.

So live but a day at a time, my dears,
Nor chafe at the old world's law;
Fight only the foes that are flesh, my dears,
Away with the men of straw!

—L. M. K.

GOOD THINGS TO EAT

ELEGANT ROLLS.—Take two quarts of flour, one half cupful of sugar and a piece of butter the size of an egg. Scald one pint of sweet milk, and let it cool, then make a hole in the middle of the flour, pour in the milk and one half cupful of yeast and a teaspoonful of salt, and set to rise in a warm place over night or until light, then knead it, and let it rise again. When well risen cut the rolls half an inch thick, shape round, spread over each round a little melted butter, double over so the roll is a half-circle, then let rise very light, and bake. Place the rolls in close contact when putting them in the baking-pan, in order that they may retain their proper shape.

YEAST.—Take a double-handful of hops and one half dozen large potatoes, and boil together in one half gallon of water until done; strain, then mash, add one half cupful of ginger, a small cupful of flour, one cupful of brown sugar, one half cupful of salt. Let stand until cool, then add one cupful of good yeast. The next day cork up tight in a jug.

VEGETABLE HASH.—Chop not very fine the vegetables left from a boiled dinner, and season them with salt and pepper. To each quart of the chopped vegetables add one half cupful of stock and one tablespoonful of butter; heat slowly in a frying-pan, and add two tablespoonfuls of vinegar. When done turn into a hot dish, and serve immediately.

TOMATO SALAD.—Take three large, ripe tomatoes, one medium-sized cucumber and one white onion, peel and slice them, and lay them in a dish alternately. Use sparingly of pepper and salt. When finished, add one tablespoonful of vinegar, then garnish the dish with parsley, and set on ice until ready for use. This makes a beautiful and appetizing dish for warm weather.

ICED TEA.—Make in the usual way. Do not let it get cold on the leaves, but strain it off at the end of ten minutes after the boiling water is poured on. Set on ice to cool. When ready to serve, put two lumps of sugar in each glass, half fill with crushed ice, pour in the tea, and stir until the sugar melts. To each glass add two thin slices of peeled lemon. This adds greatly to the flavor of the tea.

BAVARIAN CREAM.—Sweeten and churn a pint of sweet cream to a froth, dissolve two tablespoonfuls of gelatine in warm water, and stir into the cream. Set on ice until it is ready for use. B. B.

A NEW USE FOR BLACK STOCKINGS

"Will you please tell me what your boy is wearing?" I said to a friend whose three-year-old son was performing all sorts of antics in the hammock, and whose every movement revealed what looked to be black tights.

She laughed, and answered, "Black stocking-legs," and then, seeing my look of astonishment, she showed me how they were made, and they have saved me a great deal of washing, besides always giving the child such a trim appearance that I would like other mothers to try the scheme.

Take the legs of black stockings, cut them sufficiently long to reach from the waist down into the stocking. From the top cut down along the seam for about two finger-lengths. Then cut a gusset the shape of a narrow oval, and join one side to one of the stocking-legs where you cut it along the seam, and join the other side of the gusset to the other stocking-leg in the same way. This leaves an inch or so at the top where the stocking-legs are joined to each other. The hems form the band, and may be strengthened by a piece of firm muslin, in which the buttonholes are worked. The bottoms, of course, are hemmed.

The same idea may be carried out in making underdrawers from the sleeves of shirts and lower parts of the legs of underdrawers. I. B. H.

KNOT-STITCH SCALLOP LACE

Abbreviations—st, stitch; k st, knot-stitch; ch, chain; d c, double crochet.

Ch 46.
First row—D c in fifth ch, ch 2, d c in third st from last, 3 d c in following 3 st, ch 2, skip 2, 4 d c in next 4 st, 2 k st, skip 10, 4 d c in next 4 st, ch 2, skip 2, 4 d c in next 4 st, ch 2, skip 2, d c in third st, ch 2, skip 2, d c in third st, ch 6.

Second row—D c in second d c, ch 2, d c in first of 4 d c, ch 2, d c in last of 4 d c, 2 d c in hole, d c in first of 4 d c, ch 2, d c in last of 4 d c, 1 k st, catch into first knot of last row, 1 k st, d c on first of 4 d c, ch 2, d c in last of 4 d c, 2 d c in hole, d c on first of 4 d c, ch 2, d c on last, ch 2, d c on first d c of last row, d c in hole at end. These two rows are repeated indefinitely for head-

ing. They will not be given again, but will be referred to as "heading."

Third row—Heading, ch 2, 3 d c in the same st where last d c of heading has been put, ch 3, turn.

Fourth row—3 d c in ch 2 of last row, ch 2, heading.

Fifth row—Heading, 1 k st, 3 d c in hole formed by the 3 ch at end of third row, ch 3, turn.

Sixth row—3 d c in last d c of 3 d c, 2 k st, heading. Seventh row—Heading, 1 k st, catch into knot, 2 k st, 3 d c in hole at end, ch 3, turn.

Eighth row—3 d c in last d c of group, k st, catch, 2 k st, heading.

Ninth row—Heading, 1 k st, catch, 2 k st, catch into first d c of 3 d c, 1 k st, 3 d c in hole at end, turn.

Tenth row—3 d c in last d c, 2 k st, catch in knot, 2 k st, heading.

Eleventh row—Heading, 1 k st, catch, 2 k st, catch, 2 k st, 3 d c at end, ch 3, turn.

Twelfth row—3 d c in last d c, 1 k st, catch, 2 k st, catch, 2 k st, heading.

Thirteenth row—Heading, 1 k st, catch, 2 k st, catch, 2 k st, catch to first of 3 d c, 1 k st, 3 d c in hole at end, ch 3, turn.

Fourteenth row—3 d c in last d c, 2 k st, catch, 2 k st, catch, 2 k st, heading.

Fifteenth row—Heading, 1 k st, catch, 2 k st, catch, 2 k st, catch, 2 k st, 3 d c in hole, ch 3, turn.

Sixteenth row—3 d c on last d c, * ch 2, 3 d c on first knot, ch 2, 3 d c where knot was caught in last row. * Repeat down scallop, ending with 3 d c on first d c of heading, heading.

Seventeenth row—Heading, ch 1, and put a shell (2 d c, ch 3, 2 d c) into each hole around entire scallop, with 1 ch between each shell, fasten down to heading, and turn.

Eighteenth row—2 k st, catch into second shell, * 2 k st, catch into next shell. * Repeat around, ending with 1 k st, heading.

Nineteenth row—Heading, * 2 k st, catch into knot. * Repeat all around, ending with 1 k st. Fasten to heading.

Twentieth row—2 k st, fasten into knot, and so on around, ending with 1 k st and heading.

Begin again at first row. Care must be taken not to make the knot-stitches in the center of the scallop too long. In putting the knot-stitches around scallop, make the knot-stitches of each row a trifle longer than those of preceding row.

The heading by itself forms an insertion to match lace, and may be made as wide as desired.

JOYCE CAVENDISH.

DECORATION NOTES

Some of the newest furniture is made with Circasian-walnut frames of lusterless finish, ornamented in certain parts of the carving with dull powdered gold.

An ingenious lamp-shade showed seven panels of pink silk overlaid with an all-over lace of pretty design. The lace was gilded, and the result was very rich.

A ruffle of soft-toned China silk, wired to keep a circular form, is a great addition to the dome-shaped shade of a hanging-lamp, as it modifies the light and makes it pleasant to the eyes.

Appliqués of leather on velvet are very rich. Kid is also used in this way with fine decorative effect. "Fire-painting" has taken the place of the ordinary hand-painting in water or oil colors on velvet.

With the rage for Colonial entrances, the big brass knocker is once more in evidence. These knockers are not only useful, but may be very ornamental. Some of the designs are very quaint and suggestive. If the big



—Harper's Bazar.

NEEDLE-POINT LACE HANDKERCHIEF

brass door-knobs and escutcheons and knocker are kept well polished, the effect is very handsome, especially on a dark or a cream-white door.

In recent olden times, let us say forty or fifty years ago, a harp was a favorite bit of picturesque furnishing in the home of refinement. Once more it is in high favor in elegant homes, where as often as otherwise there is no one to play on it, it being now a part of the scheme of decoration. A harp is poetic in suggestion as compared to a piano, just in the same way that a ship appeals to an artist who is not inspired to paint so mechanical an object as a steamer.—Ladies' World.



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How to Dress

EVELYN SHIRT-WAIST SUIT

THIS plain shirt-waist will be a good model to wear underneath the fashionable tight-fitting coats. It has a plain front, with four graduated box-plaits in the back, meeting in a point at the belt. The sleeve is the regular shirt-sleeve, and has a band



FIG. 1 —McCall's.

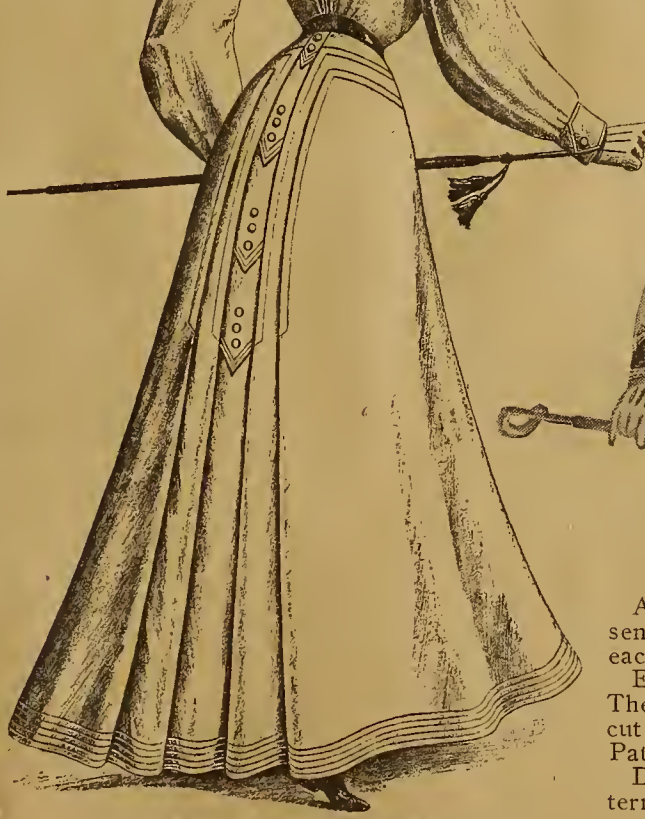
cuff; either silk, flannel or any of the heavier white cotton fabrics would be a good material to choose for this shirt-waist. The Bayard skirt is one of the most useful skirts a woman can own. It is a full circular skirt cut instep-length. It is made with a narrow panel both front and back, with two deep plaits at each side of the panels. Stitched bands simulate a yoke effect over the hips, and pointed, button-trimmed tabs decorate both the front and the back panel. Plain or fancy zibeline may be used for this skirt, also Scotch tweed, cheviot, serge or a light-weight covert cloth.

DE FOREST COAT

Either covert cloth or rough serge may be used for this useful coat. It is demi-fitting both back and front, and is made with strapped seams. At the waist-line the coat is confined with a black patent-leather belt. The mannish lapels, collar and cuffs are of velvet. If serge is used for the coat, the strapped seams should be of plain cloth the same color as the serge.

FASHION FANCIES

A fine linen-lace-thread fringe is one of the concessions to the craze for fringe. Shaded mousseline is used not only for scarfs, parasols and trimming, but for whole frocks, also. Jeweled gold or silver tassels finish the ends of chiffon scarfs or of narrow



EVELYN SHIRT-WAIST SUIT

chine ribbons, which are tied around the throat and hang down the back.

Among the hand-painted mousseline frocks worn at a recent Paris function was one in soft gray mousseline, painted in shadowy fuchsias in their natural tints.

Plain mull or batiste, with trails of white hand-embroidery running around the border of hemstitched flounces and frills, is the last note of modishness in lingerie gowns.

The broad, straight scarf of tulle in black or white, edged by a deep, full frille of tulle, is a becoming and fashionable accompaniment for the décolleté ball-gown, and can easily be made at home.

The reddish purples seen in the fuchsia combinations of the summer are repeated in the samples of winter stuffs now being shown. Browns lead upon most of the sample cards, but the greens are numerous.

The combination of widely different materials still prevails. Bands of cloth bordered with narrow ruchings of taffeta trim frocks of mousseline or other sheer stuff, cut-out cloth

is applied to chiffon, and cloth perforated in the "broderie Anglaise" fashion, and with the design outlined in



NECK-SCARF

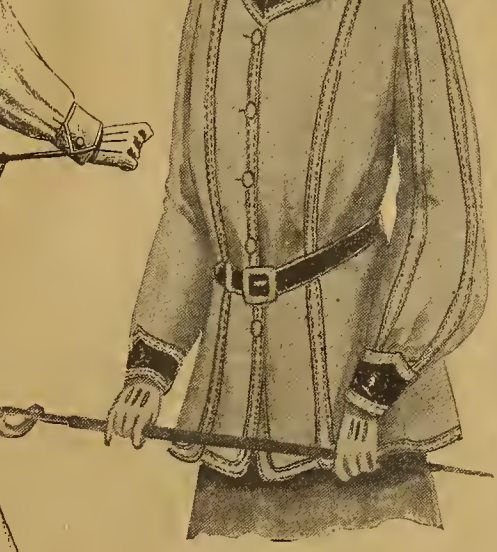
buttonhole stich, is frequently seen combined with filmy fabrics.—New York Sun.

TWO SMART FALL HATS

Fig. 1 is a French hat of soft, stitched red felt, trimmed with clusters of cherries. Fig. 2 is a large black shape of silk and chiffon adorned with ostrich-plumes.

NECK-SCARF

A small amount of fine Honiton braid is introduced in the design for the end of the scarf, and is also buttonholed to the net for an edge finish.



DE FOREST COAT

Any of these patterns will be sent from this office for ten cents each.

EVELYN SHIRT-WAIST SUIT.—The Waist Pattern No. 152 is cut in sizes 34 and 38. The Skirt Pattern No. 153 is cut medium.

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THE J. R. WATKINS CO., 48 Liberty St., Winona, Minn.
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DONALD FRASER, sitting by the low, four-paned window of his new house, was playing old Scotch airs on his fiddle to beguile dull time away on a cold winter afternoon more than a hundred years ago. The place was a remote settlement in a nascent Canadian province, where the settlers were engaged in the arduous task of carving out homes for themselves in the wilderness.

Donald's new house had only four small rooms, but it was considered quite a pretentious edifice in those primitive days. Before it the cleared fields of his farm sloped down to the ice-bound bay; behind it great woods stretched inland, intersected here and there by trails and wood-roads. In winter the ice was the great highway of traffic, and people from far and wide passed Donald's door, often calling to warn themselves before his fire and exchange news of the various scattered settlements.

This day was bitter cold, and a storm threatened. Few travelers were abroad, and Donald had no callers. He felt lonely, and got his fiddle down for company. It was too early yet to go across the bay to Sherman's. Donald smiled to himself as he played "Annie Laurie," and thought of Nancy Sherman, more beautiful than the heroine of the old ballad.

"Her face it is the fairest that e'er the sun shone on," hummed the young Scotch-Canadian, softly.

The Frasers were one of the best families in the little colony, which was as yet so thinly populated that everybody in it knew everybody else. Alexander Fraser, Donald's father, had been one of the earliest immigrants from Scotland. He was a man liked and respected by all, and had taken a prominent part in shaping the affairs of the colony. From him Donald, his first-born, inherited his broad shoulders, sandy hair, deep-set gray eyes and resolute jaw. But it was from his Irish mother that Donald got the qualities which made him a favorite with all who knew him. The merry curve of his mobile mouth, the twinkle in his gray eyes, the gay smile, the flashing wit, the irresistible good-comradship that distinguished him from the more reserved pure-bred Scotch folk, even the faint suggestion of "brogue" in his ringing tones, all contributed to form a personality which was destined to stamp its influence on those rude early days. Many a blue-eyed Scotch and English lassie would have been glad and willing to listen had Donald Fraser come a-wooing, and many a girlish heart of a hundred years ago beat quicker at his step or voice. But Donald cared only for one whom many others wooed likewise. He was not openly favored above his rivals. He did not know whether Nancy Sherman cared for him or not, but he knew that if she would not come to be the mistress of his new house none other ever should. So he dreamed of her as he drew the bow over the strings and filled the low room with the sweetness of old Lowland ballads, the fine frenzy of Highland reels and strathspeys, and the rollicking abandon of Irish jigs. When he played the last, the Irish fun in his nature overflowed him, drowning out the Scottish romance, and he wished that somebody would drop in and crack a joke with him.

When he left the north window, which he liked best because it looked out over the bay to Sherman's, and went to the south one, looking out over a dreary expanse of stumps and half-cleared land, he saw a sleigh emerge from the woods. He knew the driver at a glance, and rushing to the door, threw it open with hearty hospitality. Any one would have been welcome, but this visitor was Neil Campbell, who was Donald's especial crony. Friends they had always been, and friends they were yet—and they were also rivals. People had expected to see their friendship blotted out by their rivalry, but it had stood the test. Each loved Nancy Sherman, and each knew that the other knew it; each was determined to win her, and neither would have hesitated over any ruse that would give him the advantage. But no ill-feeling found place between them, and when Neil came from Berwick he always called to see Donald before he crossed the bay; and sometimes, so free from bitterness was their rivalry, he even took Donald over.

He got out at the door, and shook Donald's proffered hand heartily. Then he tied his redive young mare to a post, threw the buffalo-robe over her, and followed Donald into the kitchen.

Neither in appearance nor character was there the slightest resemblance between the two men. In point of looks, Donald Fraser could not for an instant compare with Neil Campbell. He was smaller and slighter, with a dark, melancholy face and intensely blue eyes—the vivid blue of the St. Lawrence water on a windy autumn day when the sun breaks out after a storm. In parentage he was pure Highland, with all the Highlander's mystic, poetic temperament. He was not so widely popular as the gay and dashing Donald, and he was not a favorite with women; but his few friends loved him rarely, and it was said by some that if a woman once loved him she would do and dare all things to win him.

Neil threw himself down before the roaring fire with a sigh of satisfaction. It was ten minutes from Berwick to the bay-shore, and though a lover thought little of that when his lass waited for him at the end, a blazing back log and a "taste" of good Scotch whisky were not to be despised at the half-way station. "It's cold the day," he said, briefly.

"You'll be going over the bay, I'm thinking," said Donald, good-humoredly.

A slight tinge of color showed itself on Campbell's dark face. While he bore Donald no grudge for their rivalry, he could not refer to it in the unreserved way of his friend. To him Donald's offhand way of looking at the situation savored of greater confidence than he possessed, and this stung him. He only nodded in reply to Donald's remark.

The latter had meanwhile been rummaging in his untidy bachelor cupboard, and now he emerged with a bottle of whisky and a couple of tumblers. This was a matter of course a hundred years ago. A woman might offer her callers a cup of hot tea, but a man treated his women to a "taste" of the best whisky obtainable. If he failed to do so, he was looked upon as seriously lacking in what were then considered the most rudimentary elements of hospitality.

"You look cold," said Donald. "Set nearer to the

A Pioneer Wooing

By L. M. MONTGOMERY

fire, man, and let this put a bit of warmth in your veins. You'll need it before you get over the bay. It's bitter cold on the ice to-day. Now for the Berwick news! Has Jean Maclean made up with her man yet? And is it true that Sandy Macdonald is to marry Kate Ferguson? 'Twill be a match, now! Sure, and with her red hair, Sandy will not be like to lose his bride past finding."

Berwick was Donald's boyhood home, and Neil had plenty of news for him concerning friends and kin. At first he talked little and cautiously, as was his wont, while Donald bantered and joked, but presently the whisky, which neither spared, began to tell on the different temperaments. Donald's volatile spirits evaporated, and the Scotch element of his nature came uppermost. He grew cautious and watchful, talked less, but made shrewd remarks. The Highlander, on the contrary, lost his reserve, and became more and more confidential. At last, after being shrewdly manipulated by Donald, Neil Campbell confessed that he meant to put his fate to the test that very night. He was going over the bay to ask Nancy Sherman to marry him. If she consented, then Donald and the rest should see a wedding such as the colony had never yet seen.

Donald rose abruptly, and went to the window, leaving Neil to sip his grog and gaze smilingly into the fire with the air of a man very well satisfied with himself. As for Donald, he was for the moment nonplussed. This was worse than he had expected. He had never dreamed that Neil would dare bring matters to a crisis yet. But there was no time to be lost if he meant to get ahead of his rival. In his heart Donald hoped that Nancy Sherman cared for him. What else could those modestly bestowed favors and shy looks, mistaken as she gave to no other, best? Yet he might be mistaken. She might like Neil best, after all; and whether or no, the first man there stood the better chance. Donald knew very well that Nancy's father favored Neil Campbell as being the richer man in worldly goods. If Neil asked Nancy to marry him when he, Donald, had not yet spoken, Elias Sherman would have the most to say in the matter, and Nancy would never dream of disputing her father's command. Donald looked far out over the bay, and realized that his chance of winning Nancy depended on his crossing that white expanse before Neil did. How could it be managed? A twinkle came into Donald's eye. All was fair in love and war, and Nancy was well worth the trial. He went back to the table, and sat down. "Have some more, man, have some more," he said, persuasively. "I'll keep the life in you in the teeth of that wind. Help yourself. There's a plenty more where that came from."

"Is it going over the bay the night that yourself will be doing?" asked Neil, as he obeyed.

Donald shook his head. "I had thought of it," he owned, "but it looks a wee like a storm, and my sleigh is on the Black Dan's back, and he'd like a canter over the ice in a snow-storm as little as I. His own fireside is by far the best place for a man to be tonight, Campbell."

Neil nodded drowsily. His potations, after his long, cold drive, were beginning to have their effect. Donald, with laughter in his deep-set eyes, watched his friend, and persuaded him again and again to have yet another "tasting." When Neil's head at last fell heavily on his arm, Donald, with a doubtful game, Neil Campbell was sound asleep, and would remain so for some time. How long? was the question. It might be; but half an hour's start would be enough. For the rest, it would depend on Nancy. But there was no time to lose.

Donald flung on his stout homespun overcoat, pulled his fur cap warmly over his ears, and wrapped a knitted muffler of hand-spun yarn around his neck. Then he caught his mits and riding-whip from the nail over the fireplace, and strode to the door with a parting glance at the reclining figure of his unconscious friend. "May your sleep be long and sweet, man," he laughed, softly. "As for the waking, 'twill be betwixt you and me." With an amused smile, he untied Neil's horse, climbed into Neil's sleigh, and tucked Neil's buffalo-robe comfortably around him.

"When he wakes, Black Dan will carry him as well as he would have carried me," thought the schemer: "but if the snow comes after sunset it's little we'll see of either over the bay to-night. Now, Bess, old girl, do your bonniest. There's more than you know hangs on your speed. If the Campbell awakes too soon, Black Dan could show you a pair of clean heels for all of your good start. On, my girl!"

Brown Bess, one of the best mares in the county, sprang forward over the ice like a deer. The sun was nearing its setting. The gleaming white expanse of the bay, gemmed here and there with wooded, purple islets, and rimmed in by dark violet coasts, glittered like the breast of a fair woman decked with jewels. Above, the curdled gray rolls of cloud flushed faintly pink, but the north and east were gray with the presage of night and storm.

Donald thought of none of these things, of the rare spiritual beauty of the wastes about him. As he urged Brown Bess forward, with now and then a glance behind to see if Black Dan were yet following, he thought only of what he should say to Nancy Sherman, and of what her answer would be.

The Shermans were a family of United Empire Loyalists who had come to Canada at the close of the American War of Independence. They never spoke of their former fortunes, but it was the general opinion that they had once been wealthy. However that might be, they were poor enough now, and life was even a harder struggle for them than it was for the Scotch immigrants who had already obtained a footing on the Canadian soil.

Elias Sherman was a genial, friendly soul, and his wife was a pale, proud woman who had once been beautiful, and was dignified and gracious yet. When they came to the little maritime colony, they brought two children with them. These two children, Nancy and Betty, grew up amid many hardships and privations; but as they blossomed

out into young womanhood they were widely famed for their beauty, and lovers from the best and wealthiest of the colonial families came a-wooing to the little cottage on the bay-shore, and thought themselves richly repaid if they won a smile or a kind glance from the "beautiful Sherman girls." Beautiful and stately they were, indeed, with a grace and charm of manner that triumphed over mean attire and rough surroundings. A hundred years ago Nancy and Betty Sherman, now sleeping forgotten in mossy, grass-grown graves on a hill that slopes down to the moaning St. Lawrence Gulf, had the pick of five counties to their hands. Not one of the blue-eyed, fresh-faced Scotch and English lassies, the Jeans and Kates and Margarets, could for a moment compare with them. They were envied bitterly enough, no doubt, and caused many a long-forgotten heartache. Yet the fault was not theirs—they made no effort to win or retain the homage offered them. The boldest lover never boasted of favors received. A kindly word or a gracious smile was all that any ever won, and was esteemed enough. Even Donald Fraser could but own to himself that Nancy was as likely to say "no" as "yes." Well, he had said it calmly and sweetly to better men. Well, he would face the question bravely—and if he were refused— "Neil will have the laugh on me then. Sure, and he's sneeling well. And the snow is coming soon. There'll be a bonny swirl on the bay ere long. I hope no harm will come to the lad if he starts to cross. When he wakes he'll be in such a fine Highland temper that he'll never stop to think of danger. Well, Bess, my girl, here we are at last. Now, Donald Fraser, pluck up heart, and play the man. Remember you're a Scotchman, with a dash of old Ireland to boot, and never flinch because a slip of a lass looks scornful at you out of the bonniest dark blue eyes on earth."

In spite of his bold words, however, Donald's heart was thumping furiously when he drove to the farmyard. Nancy was there, milking a cow by the stable-door, but she stood up when she saw him coming, grasping her pail with one hand, and holding the other out to him in the gracious, untroubled way for which she was noted. Haloed by the sunset light that was flinging its rosy splendors over all the wide white wastes around them, the girl was so beautifully that Donald's courage failed him almost completely. Was it not the wildest presumption to hope that this exquisite creature could care for him or would come to be the mistress of his little house—she, who was fit for a king's halls? In all the humility of a true lover he stood before her, and Nancy, looking into his bonny face, understood with woman's instinct why he had come. A color and light that was not of the sunset crept into her face and eyes. She did not withdraw her hand from his grasp, but she turned her face aside and bent her head.

Donald knew that he must make the most of this unexpected chance. He might not see Nancy alone again before Neil came. Claspng both of his hands over the slender one he held, he said, breathlessly, "Nan, lass, I love you. You may think 'tis a hasty wooing, but that's a story I can tell you later, maybe. I know well I'm not worthy of you, but if true love could make a man worthy there'd be none before me. Will you have me, Nan?"

Nancy's head in its crimson shawl drooped lower still. For a moment Donald endured an agony of suspense. Then he heard her answer—oh, a low, sweet answer—and he knew that she was won!

The snow was beginning to fall when they walked together to the house. Donald looked over the bay, misty white in the gathering gloom, and laughed lightly. "I must tell you that story, my lass," he said, catching Nancy's look of wonder, "and you'll see what a trick I played on my best friend to win you."

And tell it he did, with such inimitable drollery and such emphasized brogue that Nancy could but laugh as heartily as he did. She was not proof against the humor of the situation even amid the sweeter romance of it.

When morning broke, the storm was over, and Donald knew that vengeance must be on his track. Not wishing to make the Sherman house the scene of a quarrel, he resolved to get away before Neil came, and he persuaded Nancy to drive with him to the county town, some ten miles away, for a "calie." As he brought Neil's sleigh up to the door, he saw a black speck far out on the bay, and laughed. "Black Dan goes well, but he'll not be quick enough," he said, as he helped Nancy in.

Half an hour later Neil Campbell, with a blackly bent brow and a fire in his blue eyes that was woe to see, dismounted from his smoking horse at the Shermans' door, and strode into the kitchen. Had Donald Fraser been there, the comedy might shortly have been turned into a tragedy, for there was blood-fury in Campbell's heart and eyes. But the wily rival was far away, and the kitchen was empty. Neil stood and chafed at the door until Mrs. Sherman came down the rude stairs from the loft above. At sight of Campbell she started in surprise, for though many a wooer came to her house they did not usually come so early in the day, but she came forward to meet him in a gracious manner.

"Good-morning, Mr. Campbell. 'Tis a fair day after the storm, but a cold. Come nearer to the fire."

Neil felt his blind fury ebbing away before this woman of the queenlike presence and pale, sorrowful face, so little in keeping with the rude, low room. Mrs. Sherman always imposed a sense of deference upon the person to whom she spoke. Neil could not bring himself to demand of her where Donald Fraser or Nancy was. Yet he must say something. "Where is Betty this morning?" he asked, trying to speak calmly although his voice shook.

On being told that she had gone to the well for a pail of water, he went out, vowing that he would discover from her the whereabouts of his false friend.

Betty Sherman saw him coming across the snow, and stood up erectly beside the well with a smile on her face. Her lips parted, and her breath fluttered over them quickly. She put up her slender brown hands, and nervously caught the crimson fringes of her knitted shawl together under her chin, while into her eyes leaped a strange light of fear and passion, and some undefined emotion that strove to conquer the other two.

As far as feature and bearing went, Nancy and Betty Sherman looked marvelously alike. Yet so different were they in coloring, and more than all, in expression, that they were scarcely held to resemble each other. The hair that lay in skeins of silken fairness on Nancy's white forehead rippled off from Betty's in locks as richly brown as October nuts. The misty purple of Nan's eyes was so dark and deep in Betty's as to be almost black; and while Nancy was oftener pale than not, a dusky red always glowed in Betty's cheeks, and deepened to scarlet in the curves of a very sweet, very scornful mouth. As for their expression, Nancy's was always gracious and charming, while Betty's was mocking and maddening.

Though Betty had many lovers, they were afraid of her. Her tongue was a sharp and unsparing one, and she satirized them to their faces. Woe betide the rash youth with a squint or a stutter who came courting Betty Sherman! And even those who had no defect of person or manner fared little better. Yet come they did, for there was that about the girl that held a man though she treated him as the dust under her feet.

When Neil Campbell had first come to the cottage on the bay-shore it had been Betty whom he came to see. In those days he had thought Nan by far the less bonny. But Betty, always cruel to her suitors, was doubly so to Neil. She mimicked his Highland accent, mocked at his Highland ways, and laughed at his shyness as "Highland pride." Neil, believing his suit hopeless, left the scornful maid to her own devices, and was gradually drawn into the train of Nancy's lovers, soon to become the most devoted of them. Thenceforth Betty had treated him with unvarying indifference, although generally she was as merciless to Nancy's lovers as to her own. Neil felt that his humiliation would be doubly bitter from Betty's probable railing, but in his passionate anger—an anger that quite overmastered the sting of baffled love—he did not care what she might say.

"Good-morning, Mr. Campbell," said Betty's silver-clear voice as he came up to her. "It's early abroad you are. And on Black Dan, no less! Was I mistaken in thinking that Donald Fraser said that his favorite horse should never be backed by any man but him? But doubtless a fair exchange is no robbery, and Brown Bess goes well and fleetly."

"Where is Donald Fraser?" said Neil, thickly. "It is him I am seeking, and it is him I will be finding. Where is he, Betty Sherman?"

"Donald Fraser is far enough away by this," said Betty, lightly. "He is a prudent fellow, that Donald, and has some quickness of wit under that sandy thatch of his. He came here last night at sunset with a horse and sleigh not his own or lately gotten, and he asked Nan in the stable-yard to marry him. Did a man ask me to marry him while I was at the cow's side with my milking-pail in my hand, 'tis a cold answer he'd get for his pains. But Nan was ever o'erfond of Donald, and 'tis kindly she must have answered him, for they sat late together last night, and 'twas a bonny story that Nan wakened me to hear when she came to bed—the story of a braw lover who let his secret out when the whisky was abune the wit, and then fell asleep while his rival was away to woo and win his lass. Did you ever hear a like story, Mr. Campbell?"

Neil clenched his fists. "Oh, yes," he said, fiercely, "it is laughing at me over the country-side that Donald Fraser will be doing, and telling that story! But when I meet him it is not laughing he will be doing! Oh, no! There will be another story to tell!"

"What will you do to him?" cried Betty, in alarm. "Don't meddle with the man. Now, what a state to be in because a slip of a good-looking lass prefers sandy hair and gray eyes to Highland black and blue! You have not the spirit of a wren, Neil Campbell. Were I you, I would show Donald Fraser that I could woo and win a maid as speedily as any Lowlander of them all, that would I! There's many a girl would say 'yes' gladly for your asking. I know one myself, as bonny as Nan if folks say true, who would think herself a proud and happy woman if you looked kindly on her, and would love you as well as Nan loves her Donald—aye, and ten times better!"

Betty's face went crimson, and her eyes faltered down to the pail at her feet.

"And who may it be, Betty?" asked Neil after a brief silence.

Betty did not answer in words. She came a step nearer, and put one hand on Neil's shoulder, with her head still drooping, but looking up at him with her eyes, and an expression, half defiant, half yielding, wholly captivating, that answered as plainly as words.

Neil took the two cold hands in his. "If this be so, lass," he said, gently, "why did you mock at me so when I came first?" "What simpletons men are," pouted Betty. "Why, 'twas because I liked you best, to be sure!"

Then she suddenly sprang away from him with flushing cheeks and clouded eyes. "Oh, what must you think of me?" she cried. "Bold—unmaidenly—that is what you will call me, and truly. But when I saw you coming—and I had loved you so long! 'What,' thought I, 'to lose all for want of one little bold word!' 'Twas hard to speak, but I have spoken it, and now you will despise me."

She clasped her hands, and stood meekly before him with her face hanging on her breast. Neil came nearer, and drew her into his arms.

"Thank you for that word," he said, simply. "Betty, it was you that I liked best at first, and if you will marry me it is a good husband I will try to make you, and a proud and happy man I'll be."

Betty looked up at him with eyes where tenderness and mischief were mingled. "Then maybe Donald Fraser will not do so much laughing, after all," she said. "Look you, Neil. Leave me to manage this. When Nan comes back I'll say to her, 'Nan, is Donald so very sure that Neil Campbell said your name when he told of his errand?' 'Tis a mistake your Lowlander has made, sister.' And then I will tell her how you came this morning and asked me to marry you, though 'twas I that did the asking, was it not? But I'll not tell her that."

NOT ON THE PROGRAM

The elder Wallack once played in a romantic drama in which, after taking an impassioned leave of the heroine, he leaped on a horse which stood just in the wings, and dashed across the stage. Wallack objected to this nightly gallop, and it was therefore arranged that one of the supers, who closely resembled the actor, should make the ride. He was accordingly dressed exactly like Wallack, and sent to the theater in the afternoon to rehearse. He carried off his part well, and the stage-manager, satisfied with his performance, departed.

But the super was not satisfied, and complained to a young member of the company who happened to be present. "Why, see here," he said, "that thing is too dead easy. A man with a wooden leg could do it with his eyes shut. I used to be in a circus. Couldn't I stand up on this here equine and do a few stunts?"

"Certainly," exclaimed the other; "that would be all right. Go ahead."

"You think the old party wouldn't object?" said the super, doubtfully.

"Object!" returned the player. "Why, he'd be tickled to death. Do it."

That evening when the critical point was reached, Wallack was gratified to see his counterpart standing ready beside the horse.

"Love, good-night—good-night," cried the hero, preparing to drop over the edge of the balcony.

"Stay!" cried the heroine, clinging round his neck. "You ride perhaps to death!"

"Nay, sweet, say not so; I ride to honor! With thoughts of thee in my heart, no harm can come! Good-night—good-night!"

He tore himself from her frantic embrace, and dropped out of sight of the audience. "Go!" he hissed to the man.

As the horse leaped forward on to the stage, the fellow gave a mighty vault, and alighted standing on it back. He threw up one foot gracefully, and danced easily on the other, and just before it was too late leaped into the air, turned a somersault, landed on the horse's back, and bounded lightly to the stage.

It is recorded that the audience applauded tumultuously, but Wallack's remarks are, unfortunately, lost.—Harper's.

SLEEP

Weep ye no more, sad fountains!

What need you flow so fast?

Look how the snowy mountains

Heaven's sun doth gently waste.

But my sun's heavenly eyes

View not your weeping,

That now lies sleeping

Softly, now softly lies

Sleeping.

Sleep is a reconciling—

A rest that peace begets;

Doth not the sun rise smiling,

When fair at even he sets?

Rest you, then, rest, sad eyes—

Melt not in weeping,

While she lies sleeping

Softly, now softly lies

Sleeping.

—John Dowland.

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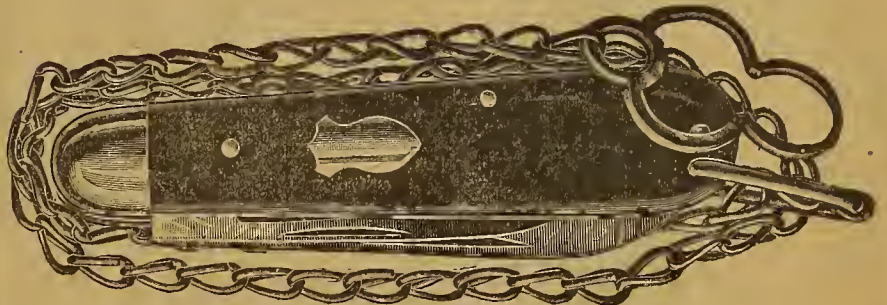
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New Chain-Knife

YOU CAN'T LOSE IT



This is no cheap knife, but one that is guaranteed by the manufacturer to be as represented in every particular. Good steel, finely tempered blades, good solid handles nicely trimmed. THE CHAIN is finely polished, and has twisted links. It fastens to the belt or suspenders, and the knife can't be lost. It is the knife for boys, and the latest thing out. Order as No. 495.

This elegant Chain-Knife given free and sent post-paid for selling only THREE coupons at 35 cents each.

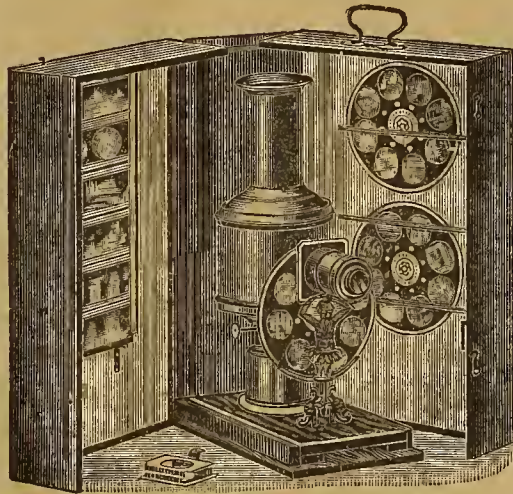
New Picture-Machine

FUN, ENTERTAINMENT, DELIGHT FOR ALL

Sixty Pictures FREE

This magic-lantern outfit has been proved to be one of the most popular premiums ever offered. This machine is 11 inches high, finished in black, blue and nickel, and fitted in a neat box with hinge cover, to which are fastened three round slides and six long slides, making in all about 60 different pictures that can be reproduced. Full directions for carefully operating machine. Sent by express at receiver's expense. Order as No. 494.

This fine Picture-Machine given free for selling EIGHT coupons at 35 cents each.



The Laughing-Camera

THE BEST NOVELTY EVER INVENTED

SEE THE PASSING SHOW

Your friends grotesquely photographed; stout people look thin; thin people look stout. For years the funniest attraction in every museum the world over have been the convex mirrors. Everybody has found amusement in contemplating his own personality in a long-drawn-out or a short-and-fat aspect.

The Laughing-Camera furnishes all this amusement, and more! By getting a focus on passing pedestrians, horses, wagons, cars, etc., the most grotesque and ludicrous pictures are witnessed. The passer-by takes on the swing and stride of a daddy-long-legs, horses look like giraffes, and altogether there is more genuine hearty fun crowded into the four cubic inches of this little instrument than could be



imagined. All grow fat from laughter. Each packed in a neat box. Order as No. 493.

We will send the Laughing-Camera, and the FARM AND FIRESIDE one year, post-paid, for only 40 cents.

The Laughing-Camera given free and sent post-paid to a Club-Raiser for only ONE NEW yearly subscription to the FARM AND FIRESIDE at the clubbing price of 35 cents. (Don't ask for coupon.)

Address FARM AND FIRESIDE, Springfield, Ohio

Consumption Can Be Cured

Marvelous Discovery by the Famous Dr. Yonkerman, of Kalamazoo, Mich.—State Officials and Great Medical Men Pronounce it the Only Cure for Consumption and All Throat and Lung Troubles

Consumptives Given up to Die and Sent Back from California Hopeless and Helpless are Now Alive and Well Through This Wonderful Cure for Consumption

A Free Package, Containing Sufficient to Convince the Most Skeptical, Sent to All who Write

Consumption can at last be cured. Marvelous as it may seem after the many failures, a sure, positive and certain cure for the deadly



DR. D. P. YONKERMAN, the Discoverer of Tuberculozine, the Only Cure for Consumption

consumption has at last been discovered by Dr. Derk P. Yonkerman, a great Michigan doctor, who has made a life-study of this fatal disease. His wonderful remedy has been fully tested and rigidly proven a sure cure by state officials, and noted medical men all over the world testify to its power to kill the dread germ that causes consumption. The doctor makes no secret of the ingredients of his wonderful cure, believing that the people are entitled to such a production of science, and he is sending free treatment all over the world, bringing joy of knowledge of certain rescue from this awful fatal disease. Such eminent scientists as Koch, Luton, Pasteur and all the great medical and germ specialists and chemists have already repeatedly declared that the consumptive germ cannot live a minute in the presence of the ingredients of this wonderful remedy that has already revolutionized the treatment of consumption and has taken it from the catalogue of deadly, fatal diseases and placed it in the curable list. Free trial packages and letters from grateful people—former consumptives rescued from the very jaws of death—are sent free to all who write to Dr. Derk P. Yonkerman, 2964 Shakespeare Building, Kalamazoo, Mich. Dr. Yonkerman wants every consumptive sufferer on the face of the earth to have this marvelous and only genuine cure for consumption. Write to-day. It is a sure cure, and the free trial package sent you will do you more good than all the medicines, cod-liver oils, stimulants or changes of climate, and it will convince you that at last there has been discovered the true cure for consumption. Don't delay—there is not an hour to lose when you have consumption, throat or lung trouble. Send to-day for free package.

Wit and Humor

SEVEN AGES OF GRAFT

All the world is graft,
And all the men and women merely grafters.
They have their sure things and their bunco games,
And one man in his time works many grafts,
His bluffs being seven ages. At first the infant
Conning his dad until he walks the floor;
And then the whining school-boy, poring o'er his book,
Jollying his teacher into marking him A goodly grade. And then the lover,
Making each maiden think that she is but the only one. And then the soldier,
Full of strange words and bearded like a pard,
Seeking the hubble reputation,
Even in the magazines. And then the justice,
Handing out the bull con to the bench,
And jollying the jury till it thinks He knows it all. The sixth age shifts
To lean and slippered pantaloons,
With spectacles on nose—his is a graft!
For he is then the old inhabitant,
And all must hear him talk. Last scene of all,
That ends this strange, eventful history,
Is second childishness and mere oblivion,
Sans graft, sans pull, sans cinch, sans everything.

—Chicago Tribune.

A VILLAGER'S COMPOSITION ON THE HEIFER

THOU gentle heifer, daughter of thy mother and 'despoiler of our choicest garden-truck, thou bringest grief to our hearts, and blue-john to our coffee. We hail thee with a fence-board and things like that. Thou goest forth in the night and seeketh the open gate. Thou wanderest in by and forbidden paths beside the unripe cucumber. Thou smelleth of the blushing beets and trampeth on the lettuce. Moreover, thou peereest into the rain-barrel and drinkest thereof. The man, neither the woman, wottest not of thy goings or thy comings. Thou spiost out the onion-bed, and lieth down thereon while thou chewest the cud like a summer girl. Bimeby thou liftest up thy voice and bawleth. Then trouble suddenly o'ertaketh thee. The man riseth up in anger and a bal-briggan suit. He hiketh out and setteth up an old hoe-handle and smiteth thee sore on thy porter-house. 'Tis then thou histeth thy tail and getteth thee out. Thou scootest up a darksome alley and maketh thy getaway. The man seeketh after and desireth thy post-office address, but findeth it not. 'Tis well. Hadst he discovered thy abiding-place he wouldst have chewed the rag with inhabitants thereof, and gone home with his nose on bias and a purple dural under the eye.

—Field and Farm.

LOOKING FOR FLAWS

Charles Lamb tells of a chronic grumbler who always complained at whist because he had so few trumps. By some artifice his companions managed to deal him the entire thirteen, hoping to extract some expression of satisfaction, but he only looked more wretched than before.

"Well, Tom," said Lamb, "haven't you trumps enough?"

"Yes," grunted Tom, "but I've no other cards."

This chronic grumbler of Lamb's is found in endless variety. Perhaps the most numerous of the species is represented by the man who is always looking for flaws—one of those blue-spectacled people who see nothing but mud when they look on the ground and only clouds when they look at the sky. One of those gentlemen was once asked to look at the sun through a powerful telescope and describe what he saw.

"Why," he said, after a few moment's study, "I see nothing but a few black specks!"—Success.

AGE BEFORE BEAUTY

"Yes," said the old man, addressing his young visitor, "I am proud of my girls, and would like to see them comfortably married; and as I have a little money, they will not go to their husbands penniless. There's Mary, twenty-five years old, and a real good girl. I shall give her five thousand dollars when she marries. Then comes Bet, who won't see thirty-five again, and I shall give her ten thousand dollars, and the man who takes Eliza, who is forty, will have fifteen thousand dollars with her."

The young man reflected a moment or so, and then inquired, "You haven't one about fifty, have you?"—The Mystic Tie.

TO KEEP HEALTHY

Drink water, and get typhoid. Drink milk, and get tuberculosis. Drink whisky, and get the jim-jams. Eat soup, and get Bright's disease. Eat meat, and encourage apoplexy. Eat oysters, and acquire taxemia. Eat vegetables, and weaken the system. Eat dessert, and take to paresis. Smoke cigarettes, and die early. Smoke cigars, and get catarrh. Drink coffee, and obtain nervous prostration. Drink wine, and get the gout. In order to be entirely healthy one must eat nothing, drink nothing, smoke nothing, and even before breathing one should see that the air is sterilized.—South-Western World.



Tom—"My brother took part in that guessing-contest, but they ruled him out as a professional."
Theresa—"How is he a professional?"
Tom—"He's with the weather bureau."

HARD ON MR. PHILLIPS

Wendell Phillips was in a hotel at Charleston, had breakfast in his room, and was served by a slave. Mr. Phillips spoke to him as an abolitionist, but the other seemed to be more concerned about the breakfast than about himself. Finally Mr. Phillips told him to go away, saying he could not bear to be waited upon by a slave. The other remonstrated, "Scuse me, massa, but Ise 'bliged to stay yere, 'cause Ise 'sponsible fo' de silverware."—Western Christian Advocate.



"HOME, SWEET HOME!"

TRADITIONS RECTIFIED

King Arthur had established the Round Table.

"Just to have the knights take pot-luck with me," he explained, glibly.

Later, however, Guinevere was disturbed by finding some red, white and blue chips in the royal pocket.

William Tell had just shot the apple from his son's head.

"It was green," he explained, nervously, "and I had to do something quick before the boy ate it!"

Subsequently a more artistic version was given to the newspapers, but truth, crushed to earth, will rise again.

G. Washington was encamped at Valley Forge.

"The Forge is all right," said the faithful soldiers, "but where is the blacksmith?"

"Don't you know," exclaimed the irate General, "that he is under the spreading chestnut-tree?"

Perceiving that they had a sagacious leader, they resumed hammering the British.—New York Sun.

BALAAAM WAS AN IRISHMAN

Matthew J. Donohue, a Tammany-district leader, tells the following story of an Englishman and an Irishman who were discussing the old race question:

"Whin Engla-and wants a raily good man, she's got to go to Ireland to git him," said the Irishman. "Look at Roberts. Look at Kitchener. Both Irish."

"I suppose you think Wellington was han Irishman," said the Englishman.

"Shure!"

"Hand Nelson."

"Shure!"

"I guess you'd claim Cæsar if you 'ad a chance."

"Shure. All good fightin' min are Irish."

"Well," said the Englishman, as a clincher, "to go back further, w'at would you do with Balaam?"

"Oh, thot's all r-right," retorted the Irishman. "Balaam wa-as Irish, but th' ass wa-as English."—New York Times.

HIS LUCKY STRIKE

"How did Biggleson happen to strike it so rich?"

"That wasn't the way it happened. The striking was done by the other thing. I understand he got ten thousand dollars damages from the owner of the automobile that hit him because every member of the jury happened to have been hurt in some way by a puff-wagon himself."—Record-Herald.

A FISH STORY

"Just throw me half a dozen of your biggest trout," said the man with the costly angler's outfit.

"Throw 'em!" exclaimed the astonished fish-dealer.

"That's what I said," replied the party of the first part. "Then I'll go home and tell my wife I caught them. I may be a poor fisherman, but I'm no liar."—Chicago News.

ONE

Nugent—"I think I'll cultivate her acquaintance. Worth a quarter of a million in real estate, is she? Is there any incumbrance?"

Olgent—"You'll think there is when you get acquainted with her little torment of a brother."—Chicago Tribune.

THE MAIN OBJECTION

Poet—"Tell me frankly what are your objections to my poetry. Perhaps I can remedy the trouble."

Editor (blandly)—"Perhaps you can—perhaps you can. Well, my main objection is that it keeps coming. Fix that for me, and I'll waive the others."—Kansas City Journal.

A DELICATE SUBJECT

Madge—"Miss Autumn's name was printed in the paper, but her age wasn't mentioned."

Marjorie—"Of course not. That girl's age is unfit for publication."—Life.

Get Rich Growing Ginseng

Read this Editorial from "The Saturday Evening Post," the conservative Philadelphia publication, issue of August 22, 1903, telling of the enormous profits of Ginseng:

GINSENG FARMING

Little Gardens That Pay Big Dividends

UNDER scientific cultivation some unique discoveries have been made in regard to ginseng. In the wild state, as is well known, ginseng roots, struggling in hard soil or against rocks and other impediments, assume curious shapes, many of them closely resembling the human form. In fact the Chinese word *jenshen*, means man-wort, and it has been supposed by many people, even including some of the ginseng gatherers and dealers in America, that the Chinese demand for the root was based on the fancy that the development of the roots in the similitude of man was nature's indication that they are intended to minister to ailing humanity.

Recent discovery that the plant under cultivation frequently produces straight roots, bearing no likeness to the human body, and that these samples of ginseng, being richer in quality than the native kind, are bringing higher prices in China, have awakened a new inquiry into the secret of the Chinese people's eagerness to possess the plant.

"It is quite probable," said a scientist in Washington, "that we shall discover in ginseng some remarkable element which has hitherto been unknown to occidental science. It does not seem reasonable that the Chinese and Japanese, who are shrewd men, and in many ways deeply learned in the mysteries of nature, would for unnumbered centuries continue to use as one of their most highly prized therapeutic and prophylactic agents a plant totally without medicinal virtue. From the humblest citizen up through all the grades of society, including men of the profoundest eastern scholarship, high officials and emperors, the inhabitants of China for ages have had unlimited faith in the power of ginseng to prevent and cure many of the ills of the body."

Thus far, scientific inquiry into the secret of ginseng has been a baffling study in chemistry. European chemists a few years ago attempted to discover what it was in the plant that had made it for ages so highly prized by Asiatic nations. These scientists reported that their reactions failed to show that ginseng had the slightest medicinal value. More recently official chemists in America examined ginseng roots and found that they contain about 5 per cent. of nitrogen, .80 per cent. of lime, 50 per cent. of phosphoric acid, .70 per cent. of potash, the remainder being nothing but water. These chemists, therefore, confessed their inability to understand why the Chinese should place such value upon it, eagerly buying it at ten dollars the pound, and giving for some of its distillations far more than their weight in gold.

As a result of these scientific decisions against ginseng as a medicine, new support was given the theory that the popularity of the roots in China was due to the superstition that their resemblance to the human form was the secret of their supposed power to cure. Moreover, in the legends and folklore of the Celestial Empire strange reference in regard to ginseng was found. It was learned that many credulous Chinese cited the case of a man living at Shangtang during the reign of Wen Ti, Emperor of the Siu dynasty, who used to hear a voice at night calling to him from the field. For years, according to the legend, these mysterious salutations were repeated, but no explanation of their origin could be found until one day there was dug up, six hundred feet from the man's home, a huge ginseng plant that closely resembled a human being. After that the voice ceased, and all who drank of a tea brewed from the roots of that ginseng plant lived without pain to a patriarchal age. In further explanation of the ready Chinese market for ginseng, proof might be had, it was said, that in the contemporaneous thought of China is the conviction that nothing save starvation can overcome a man stimulated with ginseng essence. It was even claimed that the more these roots assumed human-like forms, the better price they commanded.

But all ingenious explanations of the value of ginseng in China are now in need of revision, for, as stated, the discovery has been made this year that cultivated roots, many of

them bearing no resemblance to human forms, are selling at a higher rate in China than has ever before been obtained for the wild roots. In the presence of this curious fact, American scientists have brought to light the circumstance that among the chemists who examined ginseng there was one who discovered in the root an entirely new substance, the nature and value of which he was unable to determine. The name *panaquilon* was proposed for this element.

At present, in medical dictionaries in the United States, ginseng is defined as "little more than a demulcent." Now that recent experiments show that the Chinese are buying the roots irrespective of their shapes, more serious inquiry is to be made into possible medicinal qualities which have escaped previous analyses.

So alluring have been the promises of profit in ginseng farming that the subject has been taken up by official agriculturists in various parts of the United States. Many of the discoveries made will be very valuable to farmers who contemplate embarking in the ginseng industry.

As a result of the tests it is officially announced that, if all preparatory conditions be faithfully complied with, the gross returns from an acre of ginseng after five years of growth may exceed \$24,000. Deducting \$9,000—which includes the original payment made for the plants, the amount expended on materials for constructing artificial shade and the cost of labor in planting, cultivating and harvesting—the net profit in five years from one acre is placed at over \$15,000, or \$3,000 per annum. On this basis a farm of the regulation size, 160 acres, would, if planted to ginseng, yield a net annual income of \$480,000, provided the market price of the roots should remain as at present. It is pointed out that though extensive cultivation would reduce the value of ginseng, the demand for it in China is constantly increasing. Nearly \$30,000,000 worth of the plant has been exported thus far from the United States and the native supply is being rapidly exhausted. Moreover, the plant in China has been virtually exterminated, and the few districts in which it is still found have been set apart as the Emperor's private reserves.

The inducements, therefore, to embark in ginseng cultivation, the best roots of which now readily bring from six to eight dollars the pound in America, are very great. Emphasis should be laid on the importance of first gaining a thorough knowledge of the plant's needs, for some of its habits of growth are anomalous.

In the first place, the strange and important fact has been demonstrated that ginseng seed, although fully, normally matured, will not germinate until eighteen months have elapsed from the time of harvest, and that it will not germinate at all, even after eighteen months, if it is allowed at any time to become dry. During all this period it must be preserved by stratification with woods soil, moist and finely sifted. Moreover, the soil selected for planting must be perfectly adapted to the plant, a proper amount of shade must be provided, and other essential preliminaries looked into with painstaking care. It has been discovered through official channels that some individual experimenters throughout the country have failed to realize the prodigious sums possible in ginseng cultivation simply because they were not equipped with proper knowledge of the plant's peculiarities. Scientific tests at experimental stations in several States have been so satisfactory that the officials have no hesitancy in saying that, under proper care, the returns from ginseng farming may equal if not exceed the most that has been said for it.

Experiments showed that in cultivated plants there was a loss of only 14 per cent., while the loss in the ginseng roots transplanted was 48 per cent.

The roots were planted eight inches apart each way. With a gardener's dibble, holes were made in the ground to enable the tuberos roots to expand. This was an important factor in multiplying the yield of the crop.

As "The Saturday Evening Post" states, the roots of an acre of five-year-old Ginseng are worth \$24,000. In addition to this, the same plants will have yielded 500 pounds of seed; at \$50 per pound, one half the present market price, these seed would bring an additional \$24,000.

A \$10 to \$25 garden will pay you a dividend the first year; in five years' time its annual yield will have aggregated thousands of dollars.

You can start a Ginseng garden for from \$5 up. Our assortments include plants two and three years old that are already seed-bearers.

We have cultivated Ginseng ourselves for years, and give full instructions with all orders.

It is a very certain crop. It is an absolute staple, like cotton, wheat and iron, and, like them, is regularly quoted in the world's markets. It has unlimited market already established; the price is advancing steadily, and the supply is rapidly failing—it will take years to even check the annual deficit. It is not perishable, and may be held in store for an indefinite time. The land needed for its cultivation is so very little that even a restricted city lot will hold a bed yielding hundreds of dollars annually.

All plants and seeds purchased of us will be delivered to any address free of charge. Every order is personally inspected by our botanist. Our copyrighted directions, fully covering every point, are sent free with each order.

Autumn is the time to set out plants and sow the seed, and as our stock for sale is limited and the demand strong **it is advisable to place orders at once.** We reserve the right to decline all orders after the stock for sale has been engaged.

Remember our offer to mail you immediately our 55-page book telling all about the enormous, easily earned profit in this wonderful plant, Ginseng, also copy of the current issue of our magazine, "The Ginseng Garden," for two 2-cent stamps to help pay postage.

There are a few people in the United States now making fortunes for themselves by growing Ginseng.

There will be a great many people of enough shrewdness and enterprise to acquire riches from Ginseng gardens in the next few years. Whether you will be one of them or not depends upon you alone. It is the most profitable business known.

Ginseng root brings from \$6 to \$10 per pound in American markets. Seeds and young plants bring splendid profits from American growers. A Missouri man sold \$25,000 worth from one half acre one year, being the accumulation of marketable roots, seeds and young plants for several years.

If you sell your harvest of seeds and young plants each year, instead of replanting and enlarging your own patch, a \$10 or \$25 garden will pay you a handsome profit annually, beginning with the first year. Requires little more care than a turnip patch.

We sell stratified seeds and cultivated plants. Our copyrighted directions, fully covering every point of cultivation, sent free with each order. We guarantee safe delivery and prepay express.

If you will send two two-cent stamps to help pay postage, we will mail you immediately our 55-page book telling all about the enormous, easily earned profit in this wonderful plant, Ginseng, which has been marketed from its wild state for 175 years; cultivation in the United States just beginning; also copy of the current issue of our magazine, "The Ginseng Garden."

Remember that Ginseng must be planted in the fall. Now is the time to buy seeds and young plants.

CHINESE-AMERICAN GINSENG CO., Dept. M, Scranton, Pa.

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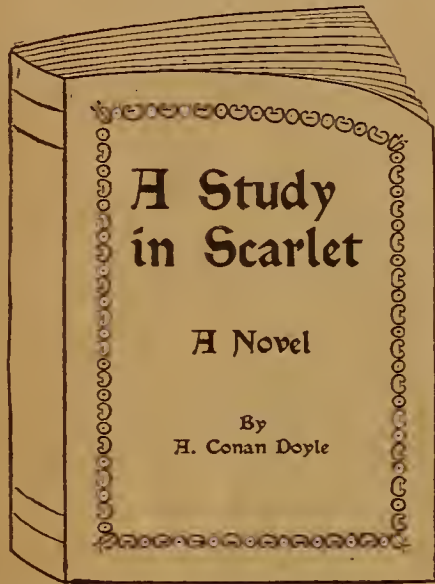
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World-Famous Authors

we offer them to FARM AND FIRESIDE readers at LESS THAN POSTAGE. The only condition is that you order at once, and call the attention of your friends to this

WONDERFUL BOOK BARGAIN

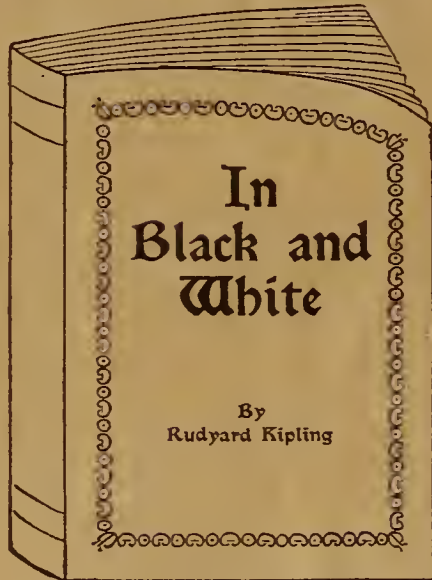
The list contains the best works of the most popular novelists and writers of merit, and the books are bound in neat and attractive style, and have from 150 to 200 pages, full size, and large, plain print. Standard books.



"A Study in Scarlet," by A. Conan Doyle, is one of the cleverest stories ever written. The reader of this book cannot help but be edified and mystified at the same time. The principal character in the story surprises you with the easy manner in which he arrives at his conclusions, which from the point of a detective are nearly always correct. You see clearly how he works and deduces his truths—sometimes like a flash they come to him, other more serious cases requiring his time. It is nothing more nor less than his extensive and practical knowledge of human nature put to work.

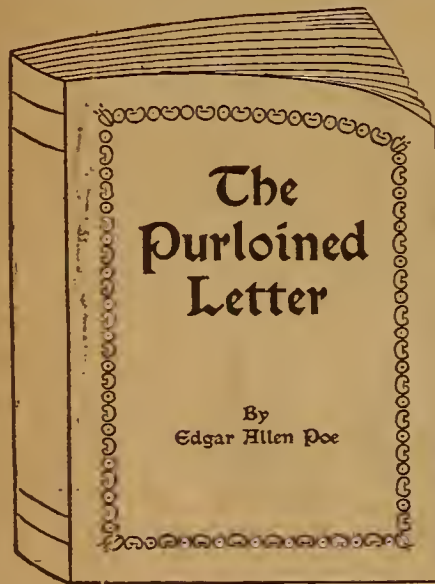
"A Case of Identity," another story by the same author, is no less interesting and fascinating, and is a good, clean story, somewhat different from "A Study in Scarlet," but just as good.

Rudyard Kipling's writings and books are world-famous. They are known and read throughout the length and breadth of the land. We have included in the list below some of his most clever novels. "In Black and White" is a charming story, and entirely different from the every-day, humdrum novel. It is unique, full of characters rare and strange, proverbs that are rare, and better known in India than anywhere else. There are colloquies that are crisp and sparkling, and it is just that sort of story that amuses and perplexes, interests and delights, the reader from start to finish. The other stories by Kipling in the list are some of his best-known, most fascinating books.



Edgar Allen Poe was the most brilliant of early American writers. Poe is best known as a poet, although critics declare that he was greater as a writer of stories. His imagination was exceptionally powerful, his love of the weird and marvelous was very strong, and his skill in producing somber and uncanny effects was extraordinary. "The Purloined Letter" is considered by many to be a remarkable story, and exciting, weird and fascinating—the kind of which you come to the end all too soon and unknowingly.

"The World's Desire," by H. Rider Haggard, is one of the best-known and most widely read novels of the day. The books listed below are a select lot of titles that we have secured at an exceedingly low price, but they are all interesting and entertaining reading, and are absolutely given to you at less than postage.



- X1 Ambitious Guest, The... Nathaniel Hawthorne
- X2 At the Green Dragon... Beatrice Harraden
- X3 Autobiography of a Thief... Charles Reade
- X4 Between Two Sins... C. M. Braeme
- X5 Black Dwarf, The... Sir Walter Scott
- X6 Cabin Boy, The... Capt. L. C. Kingston
- X7 Case of Identity, A... A. Conan Doyle
- X8 Castle Dangerous... Sir Walter Scott
- X9 Clouds and Sunshine... Charles Reade
- X10 Derrick Vaughan... Edna Lyall
- X11 Fatal Marriage, The... M. E. Braddon
- X12 Forging the Fetters... Mrs. Alexander
- X13 For Life and Love... C. M. Braeme
- X14 Good Fight, A... Charles Reade
- X15 Haunted House, The... Bulwer Lytton
- X16 Hiawatha... Henry W. Longfellow
- X17 How Women Love... Max Nordau
- X18 In Black and White... Rudyard Kipling
- X19 In the Midst of Paris... Daudet
- X20 Lady of Lyons, The... Bulwer Lytton
- X21 Life and Adventures of an Arkansaw Doctor... J. M. Barrie
- X22 Light That Failed, The... Rudyard Kipling
- X23 Marriage at Sea, A... W. Clark Russell
- X24 Money, as Coined in the Celebrated Play... Bulwer Lytton
- X25 My Husband and I... Leon Tolstoi
- X26 Murders in the Rue Morgue... Edgar Allen Poe
- X27 On Her Wedding Morn... C. M. Braeme
- X28 Paul and Virginia... Saint Pierre
- X29 Prince or Peasant... Max Nordau
- X30 Purloined Letter, The... Edgar Allen Poe
- X31 Ragged Edge Rambles... Dr. M. L. Byrn
- X32 Representative Men... Emerson
- X33 Romeo and Juliet, A Tale of Two Young Fools... William Black
- X34 She's All the World to Me... Hall Caine
- X35 Snow Image, The... Nathaniel Hawthorne
- X36 Sport Royal... Anthony Hope
- X37 Story of the Wedding Ring, The... C. M. Braeme
- X38 Study in Scarlet, A... A. Conan Doyle
- X39 Sweet is True Love... The Duchess
- X40 Talisman, The... Sir Walter Scott
- X41 Thanksgiving Party, The... Mary J. Holmes
- X42 Three Wise Men of Gotham... Marie Corelli
- X43 Time Shall Try... The Duchess
- X44 Wee Willie Winkie... Rudyard Kipling
- X45 Woman Against Woman... Mrs. Holmes
- X46 Wonder Book for Girls and Boys... Hawthorne
- X47 World's Desire, The... H. Rider Haggard and Andrew Lang
- X48 Young Goodman Brown... Nathaniel Hawthorne

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These patterns retail in fashion bazaars and stores for from 25 to 40 cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only 10 Cents Each.

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

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Special price of each pattern 10 cents. Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

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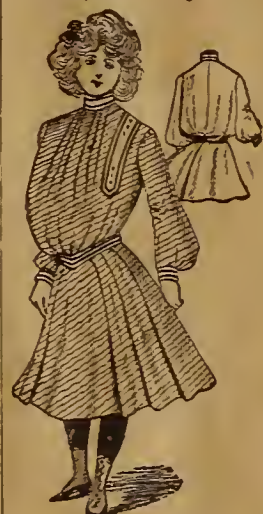
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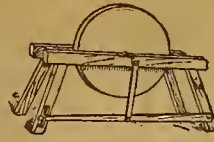
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Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE INSECT PUZZLE

Here are Six Pictures, Each Representing the Name of an Insect. Can You Guess Them?

We Offer This Issue, Instead of the Usual Cash Prizes, a Beautifully Bound Copy of Hallie Erminie Rives' Book, Entitled "Hearts Courageous." This Book Should be of Interest to Every American. It is a Tale of Old Virginia Just Previous to and During the Revolution. George Washington, Patrick Henry and Other Famous Men of that Day are Among the Prominent Characters. A Beautiful Love-Story Adds Charm and Interest to the Narrative. A Copy of "Hearts Courageous" Will be Given to the First Man, Woman, Boy and Girl Who Sends in a Correct List of Answers to the Puzzle Pictures Given Below

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a copy of either Dickens' "Oliver Twist," Cooper's "Pathfinder," or Eliot's "Adam Bede" will be given for the first correct list of answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, one for the District of Columbia, also one for Canada. The first correct list from each state wins a book, giving an equal

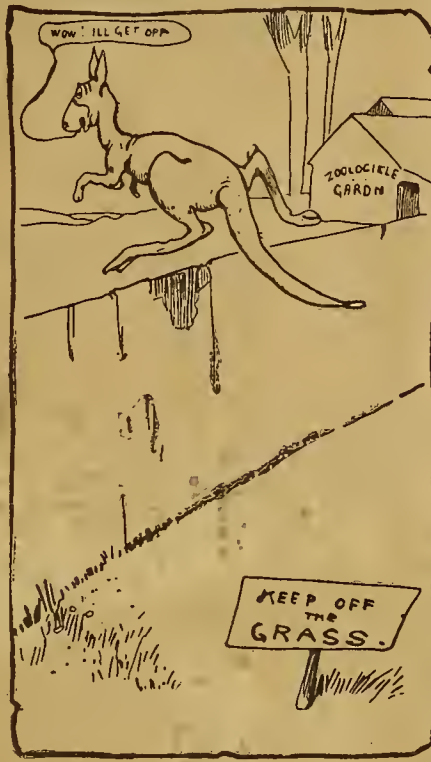
opportunity to all our readers wherever they may be located. In the states where the copies of "Hearts Courageous" are awarded, one of the other books will be given to the person sending the second correct list, so that in no case will any one person receive two books. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio, and should be received not later than October 1st.



ONE



TWO



THREE



FOUR



FIVE



SIX

ANSWERS TO PUZZLES OF AUGUST 15th ISSUE

The Six Geometrical Figures

- 1—Square.
- 2—Polygon.
- 3—Triangle.
- 4—Decagon.
- 5—Line.
- 6—Circle.

The cash prizes are awarded as follows:

Man's prize, two dollars—D. G. Kershner, Marlowe, West Virginia.

Woman's prize, two dollars—Mrs. W. C. Steward, Birmingham, Alabama.

Girl's prize, two dollars—Miss Kate Thompson, Mansfield, Georgia.

Boy's prize, two dollars—Wilbur E. Ferguson, New York City.

A consolation prize, "Gems from the Poets," is awarded the following persons for sending in the first correct list of answers from their respective states:

Alabama—Heyward Chisholm, Birmingham.

Arkansas—Miss Ona Green, De Queen.

California—Mary B. Albert, Ioamosa.

Connecticut—Ellen M. Gaylord, Bristol.

Florida—May Mabbette, Holly Hill.

Georgia—Henry F. Thompson, Mansfield.

Illinois—Miss L. A. Tietze, West Salem.

Indiana—Gladine Williams, Raglesville.

Indian Territory—Aaron C. Parrott, Checotah.

Iowa—Miss Mae Smith, Cedar Rapids.

Kansas—Alexander K. Howell, Coats.

Kentucky—Mrs. Lillie H. Parker, Vanceburg.

Maryland—Arthur Scarborough, Street.

Massachusetts—Samuel Leech, Whitinsville.

Michigan—B. L. Taylor, Charlotte.

Minnesota—Sadie G. Neish, Cutler.

Missouri—Floyd F. Forward, Clifton Hill.

Nebraska—Miss Leah Smith, Fairmont.

New Hampshire—Murray V. Wright, Keene.

New Jersey—Chas. E. Spier, Watchung.

New York—Russell B. Flickinger, Seneca Falls.

North Dakota—Mrs. H. B. Crinklaw, Bowdon.

Ohio—Walter A. Scheid, Monroeville.

Oregon—L. L. Woodward, Forest Grove.

Pennsylvania—Chas. A. Lantz, Belleville.

South Dakota—Olive Bartlett, Houghton.

Texas—Mrs. John H. Turner, Delhi.

Vermont—Mrs. Arthur Palmer, North Thetford.

Virginia—T. B. Anthony, West Augusta.

Washington—Gladys M. Beck, Port Blakeley.

West Virginia—Alice M. Dyke, Mason.

Wisconsin—Lawrence Plum, Milton.

Wyoming—Mrs. John M. Rutherford, Binford.

"Look for the beautiful!" I looked down, and saw The road stretched out before me, straight and bleak; Hard ruts, sharp ice and withered leaves there were, No beauty. Then a pool I had not marked Went suddenly bright, and a pure radiance (Like a fine couplet in a somber verse) "Look for the beautiful!"—and in the sky I found the glory's source—the setting sun, Dominant over the encroaching clouds of night; And over in the east the sickle moon Shone fair against the deep, mysterious blue. "Look for the beautiful." Even so my soul.

—Pacific Magazine.

THE VALUE OF CHARCOAL

FEW PEOPLE KNOW HOW USEFUL IT IS IN PRESERVING HEALTH AND BEAUTY

Nearly everybody knows that charcoal is the safest and most efficient disinfectant and purifier in nature, but few realize its value when taken into the human system for the same cleansing purpose.

Charcoal is a remedy that the more you take of it the better; it is not a drug at all, but simply absorbs the gases and impurities always present in the stomach and intestines, and carries them out of the system.

Charcoal sweetens the breath after smoking, drinking, or after eating onions and other odorous vegetables.

Charcoal effectually clears and improves the complexion, it whitens the teeth, and further acts as a natural and eminently safe cathartic.

It absorbs the injurious gases which collect in the stomach and bowels; it disinfects the mouth and throat from the poison of catarrh.

All druggists sell charcoal in one form or another, but probably the best charcoal and the most for the money is in Stuart's Absorbent Lozenges; they are composed of the finest powdered Willow Charcoal, and other harmless antiseptics in tablet form, or rather in the form of large, pleasant-tasting lozenges, the charcoal being mixed with honey.

The daily use of these lozenges will soon tell in a much improved condition of the general health, better complexion, sweeter breath and purer blood, and the beauty of it is that no possible harm can result from their continued use, but, on the contrary, great benefit.

A Buffalo physician, in speaking of the benefits of charcoal, says: "I advise Stuart's Absorbent Lozenges to all patients suffering from gas in stomach and bowels, and to clear the complexion and purify the breath, mouth and throat; I also believe the liver is greatly benefited by the daily use of them; they cost but twenty-five cents a box at drug-stores, and although in some sense a patent preparation, yet I believe I get more and better charcoal in Stuart's Absorbent Lozenges than in any of the ordinary charcoal tablets."

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Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. 5 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Anyone can make it at home at little expense. No starving. No sickness. We will mail a box of it and full particulars in a plain sealed package for 4 cents for postage, etc.

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