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When the smiles of spring appear,
Drag the roads.
When the summer-time is here,
Drag the roads.
When the corn is in the ear,
In the winter cold and drear,
Every season of the year,
Drag the roads.
—Reading, (Kan.) Record.

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Good Roads at Small Expense

By D. C. Wing

IN MISSOURI we have learned how to make good dirt-roads without money. It is infinitely easier than making brick without straw. By the frequent use of a simple device our common earth roads can be maintained, at practically no expense, in admirable condition. This device is the split-log drag. It was perfected by D. Ward King, of this state. There is no patent on it. So far as I know it is not for sale by manufacturers of agricultural implements. Anyone can make a drag. In advocating its use no one can possibly have an ax to grind. It is an unpretentious tool, almost ridiculous in its simplicity, with a noble mission. That such a plain, unpoetic device should produce the remarkable results which have been placed to its credit in this and other states seems almost beyond belief. Wherever it has been intelligently employed hard, smooth, convex roads over which it is a delight to travel afford convincing evidence of its efficiency. As the result of an educational campaign during the last two years to exploit its merits, the drag is now in extensive use, especially in the corn-belt. It has won its way against prejudice. It has made good, and it is remarkable how vigorously people push a good thing along, once they have been shown.

Road drags are not new; they have been used in different parts of the country for half a century, but never until a few years ago has their practical importance in road-making been sufficiently demonstrated to secure their general adoption. Like almost every man who defiantly pulls out of the common rut and makes a step toward better things and better living, Mr. King was roundly ridiculed by neighbors and others who witnessed the initial work of the drag. Of course he was locally known as a "crank." Many of those who have adopted his drag have earned similar titles.

It takes a courageous man to start something new in a farming community. As a class we farmers resist innovations almost to the extent of making ourselves absurd in the eyes of an intelligent public. It is surprising with what bulldog tenacity we hang to traditions, old methods and scrub stock. But the drag is sweeping us toward a brighter day. One improvement paves the way for another. Betterment is infectious; so is dilapidation.

One day, several years ago, Mr. King was moving some rubbish from his yard and barn-lot. Among the junk was the frame of an old hay-rack, built for a wagon and composed of two slabs made by splitting a log. In dragging this relic down the road to dump it into a convenient hollow, its effect on the rough surface was so noticeable that Mr. King decided to try it out further, so it was dragged over the road four or five times, filling in the deep wagon tracks, smoothing the surface and producing such a marked change that the accidental experiment induced Mr. King to build a drag especially for the purpose which this makeshift only partially served.

The split-log drag was therefore a fortuitous discovery. With his new drag much better work was done, and by continued tests Mr. King at length developed a system of earth-road maintenance which is sound in theory and resultful in practice. It is this system which is responsible for miles of perfect road in Missouri and other states. To pass in a vehicle from a road that has been properly dragged to an undragged road is like passing from an asphalt to a cobblestone street. Mr. King maintained a mile of public road along his farm by use of a drag, and it was famed as the best mile of earth-road in that part of the state. In traveling, people went out of their way to use this road. It was always good. When runabouts were miring in undragged roads, heavy wagons could easily be drawn at a trot over the King road. This sample stretch was such a contrast during most of the year to the road along the farms of his neighbors, and it spoke so eloquently of the progressiveness of Mr. King, that several of his neighbors finally yielded to the pressure and began to drag the road contiguous to their farms. In time the entire community was aroused to the use of the device, and Holt County achieved celebrity as possessing the best roads of any county in the state.

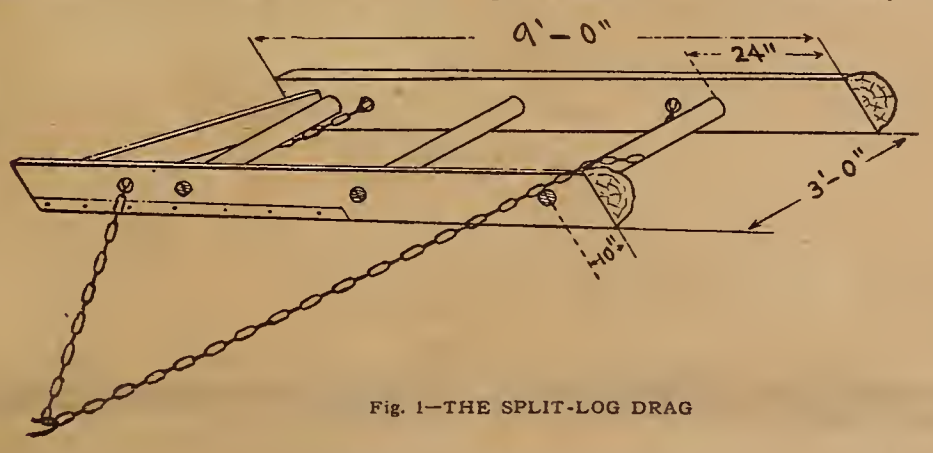

Fig. 1—THE SPLIT-LOG DRAG

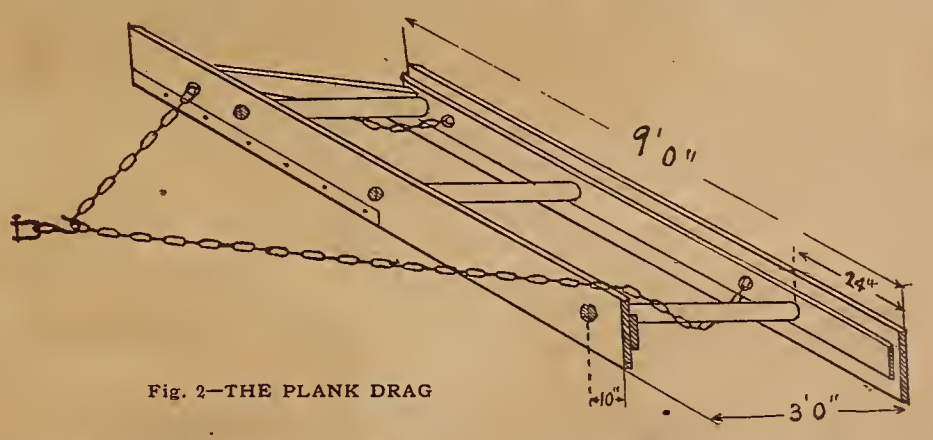

Fig. 2—THE PLANK DRAG

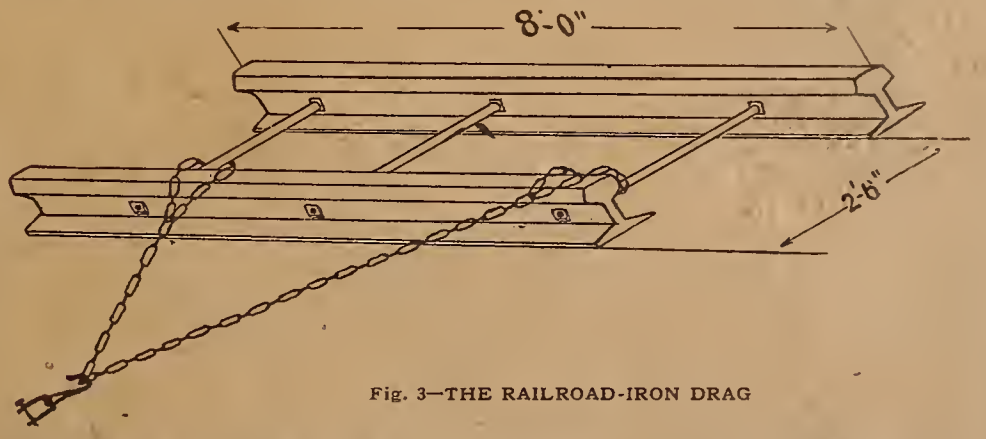

Fig. 3—THE RAILROAD-IRON DRAG

Drags then began to travel. The Missouri State Board of Agriculture got behind the drag, and issued bulletins telling how to make it and explaining its use. Iowa next took it up, then Illinois, and now it is being used in a dozen states. Good-roads trains, which gave instruction in the use of the drag and made demonstrations with it, were run by several railways. Farmers' institute lecturers took up the subject, and in other ways the drag has been advertised. And still it has not gained the popularity to which it is entitled. It hasn't anything like the number of users it ought to have. Farmers have been asked to adopt so many methods of road improvement, involving large expense in most cases and saddling obligations on posterity, that they have grown unreasonably suspicious of nearly every progressive movement, resisting it or denying it active support until it literally overwhelms them. The drag is against this type of opposition, and is overcoming it.

It is an interesting theory which explains the success of the road drag. When he was a lad on the farm, Mr. King with several of his chums used to make "mud pies" and plates, saucers, cups and the like from the puddled earth found on the surface of the road after rains. Most farm boys have busied themselves at similar work. Those who have, need not be told that the dishes, bowls and other products of their skill as clay-workers would hold water. The mud used was of such consistency and the soil particles were so closely held together that it was impervious. This mud represents the dust made by constant tramping and wear of the road surface. When moistened this fine dust forms a paste similar to cement. And here is where the drag suggests its use. All roads over black prairie, gumbo or clay soils have a few inches of puddled earth on their surface after considerable rains. By using the drag on these roads the "dust paste" is crudely troweled or smeared over the surface. Wind, sunshine and travel dry, harden and beat down this mud mantle until it becomes a sort of shell which turns water almost as freely as a slate roof. Travel soon works up dust on the surface again. Then another rain forms puddled earth or dust paste from this dust. Another dragging spreads this coat over the first, and the same processes dry, harden and tamp it. We now have a double shell on the road, making it harder, smoother and nearer waterproof than before. Dragged after each rain, when the mud works nicely and does not stick to the drag, a road will acquire during the season such a thick, compact "hide" that it will turn water, resist the action of frost, and remain hard and smooth throughout the year. The more it is traveled the better it will be, provided it is dragged after each rain. Every time the dust paste is spread over the surface and then beaten down and hardened the road is improved. The writer has a piece of road that has been dragged for two years. Its shell is so thick and hard that it can scarcely be cut with an ax. You can wager that the bottom will not fall out of this road, no matter how wet the spring may be. It was tested the past spring by weeks of rainy weather, but it held its own. Other roads were impassable. Their bottoms fell out, and they would mire man or beast. Instead of turning the water they absorbed it.

Practically all types of soil, barring sand, will make good roads where the drag is properly used. Clay and gumbo soils make ideal earth-roads. Most roads are flat; in fact, many of them are lower in the center than at the sides. This condition should be altered either by the use of the large road-workers found in many communities or by running the drag at an angle so that it will work a little earth toward the middle. It is essential to have the middle of the road at least a foot higher than the edges of the traveled way. As the drag does not move much earth it will take six or eight draggings to effect this change, but the job could be quickly performed with a big road-scraper.

A good earth road must be hard, smooth and oval or convex. A road will acquire these fundamental characteristics and retain them if it is dragged after each rain. By riding the drag the driver can regulate the amount of earth moved toward the center. The first applications of the drag will merely knock off the rough edges, fill in the ruts and provide for more effective work in future. Begin at one side of the road, driving astride the wagon track; return over the other track; then work out toward the sides. It may be well to go over it again, working back toward the middle and moving considerable earth toward that part. Each dragging will suggest how the next one should be regulated.

Two types of drags are commonly used. One is the split-log, the other is the plank drag. Both are satisfactory. More depends upon the frequency and time of use

[CONCLUDED ON PAGE 5]

FARM AND FIRESIDE

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Comment

Prices Under Federal Meat Inspection

THE live-stock market runs along with its usual ups and downs. In Chicago for the week ending September 15, 1906, the "bulk of sales" for cattle was reported at $4.85 to $6.20, and "tops" at $6.95. Prices for the same week in 1905 were "bulk of sales" $4.75 to $6, and "tops," $6.40.

This year the prices for hogs ranged from $5.25 to $6.67½, with packers finding a ready market for their product. Last year the hog market was lower, and prices ranged from $5.20 to $5.80.

A comparison of these prices does not show that the live-stock industry is being injured by a federal meat-inspection law. A few months ago the big packers were raising a wild cry about the injury to "business" from the investigation and exposure of conditions in some of the packing-houses, and predicting dire ruin to live-stock growers. The cattle raiser seemed to be the special object of their solicitude.

It was clear to many then, and ought to be evident to all now, that the packers were merely trying to raise a great scare to get farmers and stock raisers to help them in their opposition to effective meat-inspection legislation. It is clear now that it will turn out in the end that the business of packer and stockman both will be greatly benefited by a thorough application of federal meat-inspection laws. It is in order now for the various states to follow with state laws providing for stringent meat-inspection and thorough reform in the sanitary conditions of all slaughtering establishments.

James J. Hill on Agriculture

At the Minnesota State Fair, Mr. James J. Hill, President of the Great Northern Railroad, made an address on agriculture that commanded immediate and universal attention. He first spoke of the scarcity of labor on farms, the reluctance of immigrants to go to the country, and the drift of youths from the farm to the city as constituting a menace to the future welfare and prosperity of the United States. Basing his estimates on the present rate of increase in population, Mr. Hill said:

Within twenty years we must house and feed in some fashion 50,000,000 of additional population, and by the middle of this century there will be approximately two and a half times as many people in the United States as there are to-day. No nation in history was ever confronted with a sterner question than this prospect sets before us.

In referring to the present condition of agriculture, Mr. Hill takes what some call a pessimistic view, but he merely states some unpalatable truths. He says:

The first step is to realize our dependence upon the cultivation of the soil. The next will be to concentrate popular interest and invention and hope upon that neglected occupation. Agriculture, in the most intelligent meaning of the term, is something almost unknown in the United States. We have a light scratching of the soil and the gathering of all that can be made to yield by the most rapidly exhaustive methods. In manufactures we have come to consider small economies so carefully that the difference of a fraction of a cent, the utilization of a by-product of something formerly consigned to the scrap-heap, makes the difference between a profit and bankruptcy.

In farming, we are satisfied with a small yield at the expense of the most rapid soil deterioration. We are satisfied with a national average annual product of $11.38 per acre, at the cost of diminishing annual return from the same fields, when we might just as well secure two or three times that sum. . . . If a process for extracting metallic wealth from rocks were to be discovered to-morrow, such as to assure the country an added volume of $1,000,000,000 in wealth every year, the nation would talk of nothing else. Yet this would be but a trifle compared with the possibilities of agricultural development in the United States.

In spite of the army of successful farmers and good instructors who are teaching and practising scientific agriculture, the average farming of this country is just about as Mr. Hill describes it, and he makes a strong plea for better farming, naming the following methods:

There are three essentials to any agriculture worthy of the name. The first is rotation of crops. Our low average yield is due to the antiquated system, all too prevalent, of raising the same crop indefinitely on the same land until it has been worn out or so reduced that the owner is in danger of poverty. Even without fertilizing the yield of a given area may be immensely increased, and its productive power preserved from exhaustion by the restorative variety of change, which seems to be a law of all living things.

The second method of increasing and preserving soil productivity, the more liberal use of fertilizing material—such as is possible where farms are of small size and cattle are kept—gives abundant evidence of the extraordinary results that may be obtained.

The third factor in improvement, better tillage, is most interesting of all, because it opens up unmeasured possibilities. We know no more what is the maximum food-bearing capacity of the earth, or of any small portion of its surface than we do of the rate at which people may be able to travel a century from now. But what has been done is sufficiently startling. A population of 45,000,000 in Japan is supported on 19,000 square miles, aided by the food products obtained from the sea. This is because cultivation in Japan is truly intensive; that is, it is no longer even highly developed farming, but market gardening.

In speaking of the marvelous productive power of the soil, Mr. Hill says that it can be shown that an average of two persons, or more, may be supported on every acre of tillable land by the highest form of intensive farming. Applying the experience of Belgium, where the people raise from the soil food enough for the needs of 490 persons to the square mile, to the United States he says:

The conclusion is that if not another acre were to be redeemed from the wilderness, if the soil were treated kindly and intelligently, and if industry were distributed duly, and if popular attention were concentrated upon the best possible utilization of the one unfailing national resource, there would be produced all necessary food for the wants of, in round numbers, 650,000,000 people.

There are forces steadily and successfully at work improving our methods of farming. As the population increases, necessity will naturally compel a more general application of the improved methods. The fact that business men of sagacity and accurate observation, like Mr. Hill, become interested in the condition of agriculture and the national problems connected with it ought to make us feel optimistic about the future of the country. He concludes his address with this statesmanlike utterance:

If we are to walk safely in the way of wisdom there is much to be done. It is time to begin. There must be a national revolt against the worship of manufacture and trade as the only forms of progressive activity, and the false notion that wealth built upon these at the sacrifice of the fundamental form of wealth-production can endure.

A clear recognition on the part of the whole people, from the highest down to the lowest, that the tillage of the soil is the natural and most desirable occupation for man, to which every other is subsidiary and to which all else must in the end yield, is the first requisite. With public interest firmly fixed upon the future, the country in mere self-preservation must give serious attention to the practical occupation of restoring agriculture to its due position in the nation.

J. C. Barnett.

* * *

The Business End of Farming

AGRICULTURAL papers all over the land have had much to say about the need of paying more attention to the proper marketing and packing of certain farm products. It is true that attractive appearance, whether in the product itself or in the package or in both, will often boom sales. It seems plain, however, that such boom must be only temporary if not supported by good quality in the product.

Recently, during a visit in New York City, I bought a basket of Delaware grapes of very attractive appearance, but I was very much disappointed when I tried to eat them. Evidently the vines had been diseased, for the grapes lacked the sweetness and flavor of the naturally well-ripened Delaware. It will be a long time before I ever buy another basket of Delawares in any city.

It is very seldom now that one finds a really nice melon in our city markets. Most of them are flavorless and without the sweetness and richness that a good melon should possess. This may be due to blighted vines or to unfavorable weather conditions (excess of wet and cool weather). When one eats a melon of this kind his appetite will be satisfied for a long time to come, and there will be no call for more. This is the case also with many of the peaches on the market, which are either diseased or undersized, or of poor varieties. It holds true also of other fruits and vegetables on the markets.

Quality is the only thing that can be expected to increase sales and consumption permanently. The business of farming, in short, will be found in the production of things that appeal to the appetite of people even more than to the eye.

Farm products of the character of the Kieffer pear, the northeastern Ben Davis apple, diseased peaches, unripe grapes, stale eggs, poor butter or cheese, may sell for awhile on account of appearance or packing, but in the long run they will only hinder and retard the natural and expected increase in demand and consumption. In the business end of farming we must not leave the palate out of proper consideration.

T. Greiner

The Cooperation of Farmers

WHILE enough has been written about coöperation on the part of farmers to make the subject odious, still it stands out as one of the greatest subjects of the day. It is now one of the greatest essentials of progressive farming; necessary to the development of the business as an art and a profession, and so recognized by the world.

Farming has in time past been regarded as an isolated work, but time has annihilated this feature, and the farmer is as vitally a potent factor in the business world as any other man. He can no longer have for his motto: "Every man for himself and God for all." He must join the great multitude in the ranks of progress. All the laboring classes have become organized, capital in other lines is coöperating, and the farmer must look forward to these conditions.

Fertile fields are gone under the touch of time, and lack of system has made it necessary to change tactics. Not only is this needed to restore fertility, but to keep up a production that will give man a living from the soil. In the cotton belt this is regarded as being true in every sense. Decreased production is due largely to overworked land and poor farming. No organization on the part of the farmers, in a local way, looking to the upbuilding of the production by seed selection and intensive cultivation, is responsible in a large degree, and something should be done.

The tenant system is one that is ruinous to the South, and the recent move to correct this evil in some sections of the South is one that will work much good. Other organizations have been made with other objects in view, but this is the first of this kind to be launched in any section. While it is styled the anti-tenant league, still a better name would be the landlord's league, as the aim of the society is to encourage farmers in buying small farms and working them well, rather than to have them rent large areas and half-way cultivate them.

This is the season of the year for the farmers to get together and discuss plans for coöperating in every way. It is not only necessary for the farmers to work together in formulating methods for handling and disposing of crops, but they should also try and derive some benefit from the experience of the farmers of the community who have made a success, either in a special or a general line.

J. C. McAuliffe

* * *

Postal Reform

I NOTE that the Universal Postal Congress, which met in Rome recently, recommended the increase of the international letter weight from half an ounce to one ounce; a rate of five cents for the first ounce, and three cents for each additional ounce. This cuts the present rate one half. In 1897 the weight for sealed letters in England was raised from one to four ounces, with a rate of two cents for the first four ounces and one cent each additional two ounces. Instead of sending the post-office department into bankruptcy, as would be claimed in this country if such a change were contemplated, the number of letters posted during the following six years was 686,500,000, as against 187,200,000 the preceding six years, and an increase of revenue of $9,986,000. Here is the present rate on letters in Germany. City delivery and up to forty-six miles, eight ounces, one cent. In this country the rate is, city and rural delivery, one ounce, two cents. Eight ounces, sixteen cents. Our rural delivery wagons are carrying less than twenty pounds each, daily. A four-pound package costs sixty-four cents postage, carried from one post-office to another, but it can be sent to London, England for forty-nine cents. We have some very wise statesmen in this country. Some of them are candidates now. See them about this.

Fred Grundy

* * *

You are no doubt very busy just now, but we trust that you will take time to read the advertisements in FARM AND FIRESIDE this issue. There is such a big variety of good things that you are sure to find something you need.

About Rural Affairs

The Local Fairs

AT THIS time of the year we are used to reading in the average agricultural papers the admonition: "Take time to go to the local and state fairs. Such visits are instructive and have an educational value." I believe this depends on the character of the fair.

Two or three years ago while in a neighboring city during county fair, I happened to have an hour or so to spare, and concluded to go on the grounds just to see whether I could learn enough by the visit to reimburse me for the twenty-five cents entrance fee. I went through the horticultural exhibits and the poultry exhibit, and examined the agricultural implements, and when I then met an old friend, well known as farmer, fruit-grower and farm teacher and lecturer, I could jokingly (but truthfully) tell him that my meeting him was the only thing that had to me been worth paying the entrance fee. On the grounds there was horse-racing, and a whole lot of fake exhibits and side-shows, which induced thousands of visitors to part with some of their cash for which they were not getting much, if anything, in return; but in all the legitimate exhibits I failed to find the first thing that imparted to me a valuable lesson, or could in even the faintest manner have an elevating or educational effect. So I made up my mind to stay away hereafter from local fairs until they improve in general character.

It is true that the fruit exhibits at our annual state fair, in Syracuse, New York, have for some years been a wonder; yet in no sense were they more instructive than the exhibits, combined with the demonstrations by experts, at our horticultural meetings, as in Geneva, Lockport, Rochester, etc. As for real solid and lasting educational value the attendance at one of these meetings is worth a dozen visits to the so-called agricultural fairs, even if we must concede to the latter some value in giving the farmer and his family "a day off," and a chance to meet and chat with neighbors. As for me, give me the meetings!

The Candy Question

Why is it that most children, mine among them, are so inordinately fond of candy? I used to be when a child, and yet I know that there was nothing that would upset my (then naturally weak) stomach and give me a spell of the regular sick-headache much more quickly than the free indulgence in rich candies, especially chocolates. My children are not satisfied with pure loaf sugar which they can have abundantly. They want the store candies, which I do not like to give them, because I know they are not good for them. What is it that their stomachs crave? They have all the fruits they want. "Youth's Companion" says about candy and candy eaters:

"If we lived only on meat, eggs and the non-starchy vegetables, such as peas, beans, spinach and cabbage, the addition of candy and sweets would be most commendable. The body must have sugar in some form to enable it to do its work; but it should be remembered that sugar is the coal of the human machine, and every engineer knows that too much coal will impair the efficiency of his boiler. If the engine is working to its utmost capacity and the draughts are all open, almost any amount of fuel will be consumed, and will give out energy; but if only a little work is required and if the damper is closed, the addition of coal beyond the normal requirements is not only of no service, but is an evil.

"It is the same with the human mechanism. An active boy or man engaged in hard work can take an almost unlimited amount of sweets and starchy foods, so long as he does not restrict the amount of proteid food (meats and leguminous vegetables), not only without harm, but with benefit. Women and men engaged in sedentary pursuits will eat much candy at their peril.

"There is no doubt that too much of it is eaten. It is taken at the end of a dinner composed largely of potatoes, rice, bread and other starchy foods which the digestive juices turn into sugar, or nibbled between meals, and in this way altogether too much sugar is taken for the needs of the body. The result is a clogged liver, resulting in biliousness and gall stones, in gouty symptoms, and even in diabetes; digestion is impared, and the nitrogenous elements are not assimilated, so that, waste is not repaired.

"It should be remembered that the cereals are composed almost entirely of starch, which is transformed in the body into sugar, and that those who live on them, under the mistaken notion that meat is harmful, cannot eat candy as well without serious risk."

My boys are active, very active, indeed. Yet the whole thing remains a mystery to me, and I would really like to find out, why this craving for candy.

About Water Privileges

Water always has a great attraction both for old and young. When we select a location for building, we give the preference to a "water-front." When we desire to buy a farm we would pay more for one located close to a lake, river, or even creek, than one remote from a body of water. Here in this vicinity the sites along the river or creek are always in demand, and are often held at a high figure. It is a very fine thing to have privileges of boating and fishing and swimming, and a chance of irrigation for our otherwise parched soils. But there are also penalties attached to such privileges. Children, and even older people, like to go on and into the water and on the ice, and they will take risks.

Our little ones, if not constantly watched or prevented by fences, will go to the water's edge and occasionally fall off the docks, and the little boys will take risks in swimming and diving, or dare one another to go into deep water without being able to swim, and foolish girls and boys will rock the boat, and others will hoist up a sail, the handling of which they do not understand—and there will be funerals, etc. And this will be so as long as the world has rivers and lakes and foolish and heedless people.

Whoever selects a site for a home, or buys a farm, and has to consider the advantages and drawbacks of a location near a body of water, must count the cost; and if he decides in favor of the "water-front," he must try to head off the dangers by watching the little ones, and teaching and restricting the older ones, and even then be prepared to have more or less worry. It is the penalty we have to pay for an otherwise valued privilege.

The New Potato Species

"Country Gentleman" has the following note about a "new potato:"

"The cultivation in France of a new potato, brought from Uruguay, has, the British consul-general for Havre writes, been observed for some time with great interest. A variety of this potato, called the 'solanum commersonii violet,' is said to possess excellence of taste as well as nutritive value, and is equal to the best table potatoes known in France. The variety is distinguished by its resistance to frost, as also to disease, and its one great advantage is that is prospers in a damp or swampy soil, where no other kind of potato would grow."

Last spring I obtained some tubers, purporting to be of this potato, from a New York seed firm. Recently I dug one of the hills and had the potatoes cooked. The tubers are elongated, of a most beautiful violet or purplish color, eyes very shallow, flesh white. But in quality I greatly prefer the Ohio, Hebron, Eureka or Noroton. The vines are neither disease nor bug proof.

* * *

Salient Farm Notes

Hedge-and-Wire Fence

A FARMER in Missouri writes that he has two miles of very poor Osage Orange hedge twelve years old which he desires to perfect with woven and barbed wire. He wishes to make a pig-tight fence of it, and also a cattle fence, and desires to know the best way to do it.

I do not know what I can add to the article in FARM AND FIRESIDE of August 1st to make it plainer. After the wood is ripened this fall, or at any time during the winter, he must cut the hedge off even with the surface of the ground, leaving strong stubs six to twelve feet apart, and as high as he desires the fence to be to attach the wires or wire fencing to. The stronger these stubs are the better will they answer the purpose. Staple the bottom wire firmly to the base of the stubs, then the middle and top wires. In putting on the barbed wires above the netting simply draw them out straight. No stretching is necessary, as the new growth of brush will hold them firmly enough when it gets a year or two old.

Four feet is high enough for the top wire, and I think that three and a half will be much better, because the hedge must be trimmed off above this top wire, and if the growth is six to ten inches above it one is less apt to take the edge off his knife by striking the wire. The best way to trim a hedge reënforced with wire is to cut straight down one side, then the opposite side, then take off the top. If this is done while the wood is soft it is an easy task, if one keeps his knife sharp. Some farmers trim a hedge very close, leaving it only about a foot wide, but I think that eighteen to twenty inches makes a better hedge, and it is less likely to kill out during seasons of extreme drought or cold.

One is not restricted to Osage Orange to make a good fence by the addition of wire, woven or barbed. Arbor-vitæ makes quite as good a hedge, and can be grown hundreds of miles north of where Osage will endure the winters. It takes longer to make a good arbor-vitæ hedge, but when once made it is good for more years than any wooden and wire fence that can be built. Around a suburban home it makes one of the prettiest fences that can be made, and is easily kept at any height. The woven-wire fence in it should be close meshed, so that the dogs and poultry will be excluded. If carefully trimmed it can be made to look like a solid wall of green, so close and dense that even a small bird can scarcely penetrate it.

In a recent trip through a portion of Ontario, Canada, I saw miles of old-style rail fences, and also lots of fences made of tree stumps with the roots attached. There are also lots of old zig-zag rail fences in Indiana. It seems to me that the labor involved in making the rails, hauling them to place and building the fence would, at the present rate of wages, pay for about three modern woven-wire fences. The cost of getting the stumps up and into line would fully equal the cost of a rail fence. It seems to me that a farmer could employ his time to better advantage. To be sure it is necessary to get rid of the stumps in clearing land for cultivation, but I think I would make ashes of them and get the benefit of the ashes. On the prairies we are planting trees and encouraging their growth in every way. In the wooded sections they are cutting down thrifty young oaks and splitting them into fence-rails. And the price of fence-posts, ties and oak flooring is going up by leaps and bounds.

Cheap Hog-Houses

A young farmer writes me that he recently visited the farm of a noted and wealthy hog-raiser and inspected his hog houses and sheds, and he says that if he has to wait until he can get enough money together to build such an outfit of hog houses and sheds as that man has before he can become a successful hog-raiser he will give up the idea right now. Quite often I see advice given in farm papers to young men to visit the establishment of some noted breeder with a view to learning his methods and adopting his plans of building houses and sheds. The value of such advice is questionable. Usually the successful hog-raiser is a busy man, and does not care to be annoyed by visitors. Then he does not know whether they come from some cholera-infected locality or not, and he does not want them tramping through his lots and houses. And even if they are admitted and allowed to examine his outfit they will find its cost far beyond their means.

Because one cannot have expensive houses and sheds for his pigs is no reason why he cannot be successful with them. Some of the most successful hog-raisers and poultry-raisers I know have the cheapest sort of houses and sheds for their animals and birds. I made more money raising market poultry than anyone I know, and my sheds and yards were built of the cheapest material I could buy, and to tell the truth they looked rather ragged. But they answered the purpose all right. I have known many farmers who made a good deal of money raising pigs with an outfit that would not make a pretty picture by any means. It is much better to have four or five small yards with a small shed or house at one end or in one corner of each than to have one large yard and one long shed, even if the latter is divided into rooms. The house for farrowing sows is the one needing most careful construction, and it may be made, and well made of the cheapest materials. The lumber in it may be of the cheapest quality, and it should be entirely covered with a good grade of roofing felt, which costs but little, and kept covered with it, and the cheap grade of lumber will last longer than the best grade that is exposed to the weather. The felt should be painted with the cheap paint that is usually sold with it, and this painting repeated whenever needed. The painting is best done on a warm day, and if it is sanded immediately after it is put on it will form a hard coating that will last a long time. I would rather have a building made of a cheap grade of lumber and well covered with sanded felt than one made of the best grade of lumber and not thoroughly painted with the best paint. The former would cost very much less than the other, would be much warmer, and last longer.

The sow-house should have at least two partitions in it about four feet high, making three small rooms. No board floor is needed, but enough earth should be thrown in to raise the floor at least four inches above the surrounding level. Around the sides of each room a strong pole, or two-by-four-inch piece, should be fastened about eight inches above the floor and six inches from the walls. This is to prevent the sow from crushing the pigs by lying on them. Very often one or two of the pigs when they are very small will get between the wall and the sow just as she is lying down and are sure to be crushed to death. If the pole is there they can escape by going under it, which they will almost invariably do. One should be very careful to put in but a very little straw, a few handfuls for the sow to form a sort of a ring is about all that is necessary. Many a farmer loses half or more of his newly farrowed pigs through lack of warm, weather-proof sheds for his sows. They are easily built and cost very little, and if properly cared for will last a lifetime. Get the little fellows well started in life and the battle is half won. A farmer who has made thousands of dollars raising hogs once said to me: "If I can get the pigs safely to the end of the first week I can count all my losses for that season on the fingers of one hand." Prevent losses of newly farrowed pigs, and then feed right, and you are sure of a good profit.

Fattening Chickens

Mrs. M. K., Missouri, asks how I fatten my chickens, and at what age I begin. I pen up and begin to fatten old fowls about ten days before marketing. Young chicks that are on the range I pen up and feed one to two weeks, according to condition when penned. For feed I use cracked corn one part, middlings one part, wheat bran one part, all measure, not weight. One day this is dampened with sweet milk or water, just enough to make it moist, and the next day it is fed dry, always in feed-troughs made especially for this sort of feed. If the damp feed is given all the time they seem to tire of it, and they do not eat enough of the dry feed to fatten as fast as I like. I also feed green food of some sort, if I have it. Rape is the best green food that grows for penned fowls or chicks. Grown fowls fatten quicker than growing chicks, because all the food goes to flesh, while part of it goes to growth in young birds. One should not feed young birds in this manner too long or they will go off their feet. Old birds fed this way too long become clogged with fat and soon die.

Fred Grundy

* * *

Shopping by mail is becoming so popular on account of the Rural Free Delivery that people living in the country have almost the same advantages that city people enjoy. To meet this special demand, the large concerns issue catalogues which bring to your home the complete contents of the great city department-stores. A glance through the advertising columns of FARM AND FIRESIDE will prove both interesting and profitable to you. If you see anything you need, write to the firm for catalogues, and they will give your request prompt attention.

* * *

When this paragraph is marked with a *blue pencil*, it means that *your subscription has expired*, and should be renewed at once in order to insure receiving FARM AND FIRESIDE regularly in the future. Please do not fail to renew *now*.

FARM AND FIRESIDE will be sent one year for twenty-five cents or three years for fifty cents. *It is growing faster than any other farm paper in the world. Please renew promptly.*

What About the Automobile?

"THERE comes an auto! Be careful, Father! Turn out as far as you can. Better stop till it gets by!"

With fear and trembling father pulls the horse out to the side of the road. Mother grows pale, and clings to the seat with a clutch that makes the blood settle under the nails of her fingers. There is a swish on the beaten track. Old Jack dances on his hind legs. On out of sight the machine rushes, never swerving to the right nor left nor slackening in the least its speed. Father and mother breathe freer and congratulate themselves that they are still in the land of the living.

This is the story of every day in the week, and a hundred times a day in these new days in which we are living, varied now and then by some awful tragedy.

And yet, the automobile has come to stay. No doubt about that. We have had many thrilling experiences with other machines that have come with this new age. The mowing-machine was mistrusted when it first came. It did slay its hundreds before we became accustomed to its workings. Now and then we still hear of men being killed or seriously injured by mowers. Still, no one doubts the practical utility of the mowing-machine. Bicycles, electric-cars—almost all kinds of machinery have had to fight their way up to adoption by the general public. Even so simple a thing as an umbrella nearly brought the inventor to his death when he first carried it on the street. People looked upon it as a device of the evil one.

But the fact that we are slow to adapt ourselves to new things does not lessen the misery which comes while we are trying to get acquainted with them. When a farm team, catching a glimpse of one of the new flying autos coming down the road at lightning speed, turns short around upon the harrow, cutting and bruising the legs of horses worth two or three hundred dollars, and perhaps ruining them for life, or when a good old farm horse meets one of them face to face at a turn of the road and runs away, throwing the occupants of the carriage out, jeopardizing their lives and tearing the vehicle all to pieces, as has been done within a mile of my own farm, it becomes a serious question how to meet these new conditions. The time may come when we will all have automobiles. Meantime what shall we do to prevent the many terrible accidents that happen?

This seems to me to be the true solution of this vexed problem: Automobiles should not be permitted on the public highways of any state. Roads should be constructed especially for them.

The automobile is not a public conveyance in the sense that the carriage is. It is an engine, to all intents and purposes, like the locomotive or the traction-engine. In the case of the former we confine the machine to a certain fixed course. The traction-engine we do tolerate on the highways, but most states insist that someone shall go ahead of it and warn people of the approaching danger, and by other strict laws limit the progress of the machine where men, women and children are traveling with horses.

The automobile is in many ways even more dangerous than a highway locomotive. It has no rails upon which to run. It may take any part of the highway it will. The feelings of its driver alone settles its course. And far too often this driver is a reckless man, perhaps made doubly dangerous by the fact that his brain is crazed by liquor.

Watch the course of one of these death-dealing machines as it swerves from side to side along the road. In a minute it may be hurled off the beaten track and plunged down into the ditch. How often it happens that the old farmer riding along the way puts up his hand as a signal for the driver of the automobile to slacken his pace until he is out of the reach of danger, only to be totally ignored.

Many of us will deeply sympathize with the farmers of Indiana who have applied for the privilege of carrying revolvers to defend themselves against reckless automobilists. Of course, this privilege cannot be granted. It would be only licensing one class of men to do a wrong thing because another class did it.

But the objection will at once be raised that it would cost too much to build a separate road for the automobiles of the country. This objection is not a valid one. The argument that we have given up our public highways to railways and street-cars, and almost every other kind of machine has little force. If we have done wrong in this respect it is time to stop. We might better provide separate roads for automobiles than to have the fearful tragedies which are done every day kept up through all time, as they will be under existing laws. There is no reason to believe that the number of these so-called accidents will not increase with the increased number of machines used.

Life is worth more than money. It is easier to build roads than it is to be killed. Let us have separate roads for the automobiles.

New York. EDGAR L. VINCENT.

Farmers' Correspondence Club

Cistern Filter

In this day and age, when sanitary conditions are of the first importance, when everybody wants the sweetest, pleasantest and as nearly pure water as it is possible to obtain for domestic use, it does seem to me a little strange that so many illy devised filters are in use. Certainly each method employed is considered the best by the person employing the same. But from personal observation while engaged in work that necessitated my entering into wells and cisterns, I know that most methods employed are failures, in that they permit too much foreign matter to be carried into the cistern to decay and become filthy.

The filtering-box between conductor-spout and cistern has its faults, in that it permits the water to run through too fast to filter thoroughly, thus carrying with it much dirt that should never enter the cistern.

Then, too, the brick wall through the center of the cistern has its serious faults. The water pouring in on one side, filtering through to the other side does the work as nearly perfect as any while the wall is new. But, as a rule, people who depend upon cistern water for household use avoid disturbing water in the cistern, or cleaning it until the water is low. This, many times, is the cause of the cistern going for two or three years without cleaning. And all the while rains are carrying a little more dirt into the filter, adding to the already accumulated filth in the filter or the filthy "purifier."

So from knowledge gained from actual experience, I decided that the proper thing would be to keep the dirt out of the cistern, where it can be removed; to have a filter that can be renewed easily and without disturbing water in cistern. So I made an experiment which has proved a success. In digging a cistern dig deep in the ground, and arch well under ground, closing in arch to receive a two-foot sewer tile to form the neck, which can easily be closed against insects and toads. By the side of the big cistern, dig a little filtering cistern, one that will hold from twelve to fifteen barrels. Wall arch and cement same as large cistern, except in the center of the bottom, which should be slightly basin shaped, dig and cement a hole large enough and deep enough to receive a bucket that will hold five or six gallons or more. Have the bottom of the bucket perforated with small holes. Have a strong bail to the bucket by which to lift it out. Have a strong flange around the outside close to the top as can be to rest tight on the bottom of filtering cistern around the top of the hole. Can make water-tight by resting flange on packing. If bucket is not good and strong it will be well to place rest under the bottom, as there will be a very heavy pressure on it when the filtering cistern is full. From the bottom of the hole under the bucket connect filter with cistern by means of a three-inch sewer tile thoroughly cemented in.

Advantages in this method are that the filtering material can be packed so closely in bucket as to permit the water to run through very slowly, the filtering cistern acting as storage, so that many days may be taken to filter what, under other methods, would run through in a very few hours.

Then, too, the filtering cistern, being but one third as deep as the cistern proper, any time that the water is below the tube connecting filter with cistern, the bucket can be lifted out and material renewed. And by closing the tile leading to cistern one can go down into filtering cistern and wash thoroughly without disturbing the water in cistern. By filling the bucket with pounded brick, charcoal or slate packed in clean-washed sand it can be made to run through very slowly, thoroughly straining the water. After packing bucket and before setting it in hole, run water through to wash all sediment out.

Colorado. J. D. SWITZER.

Lightning-Rods

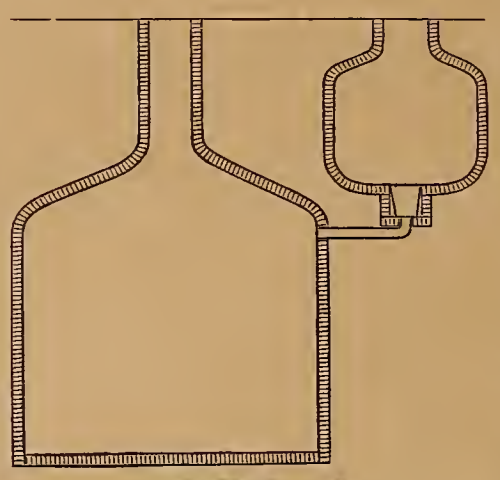
The only building with lightning-rods on that has been struck by lightning to my knowledge in my locality was protected with a copper lightning-rod. A medium-sized barn had three points on it. A low shed extended out from one side. Lightning struck the end of the shed and tore out a post. This building was not properly protected with rods. A point should have been placed on the end of the shed and grounded and also connected to the rod on the barn.

This will no doubt account for the buildings supplied with iron rods that have been damaged by lightning in Missouri, according to your correspondent of August 15th. He failed to state that the rods were not properly erected.

Hy Davis, State Fire Marshal of Ohio, recommends the use of iron rods. "Elements of Static Electricity," by Atkinson, admits the use of iron rods. "Electricity and Magnetism," by Thompson, prefers iron to copper for lightning-rods.

Professor Oliver Lodge, one of the best authorities on atmospheric electricity, maintains that a lightning flash is of the nature of an electric oscillation rather than a current. If so, the conductor of least resistance is not necessarily the best lightning-rod. Professor Lodge recommends iron in preference to copper for lightning-rods. Alexander G. McAdie, in "Scientific American Supplement," says if lightning then be a discharge of an oscillatory character, it may happen that the current down the lightning-rod would be only skin deep. In the last four years we have learned that when an electric current flows steadily in one direction in a cylindrical wire, its intensity is the same in all parts of the wire; but if the current be of an oscillatory character, namely, a current which rapidly reverses its direction, if the alternations are very rapid, the interior of the wire may be almost free from current, and if iron is used for lightning-rods, and it seems to be in every way as efficient as copper, have it in rod or tape, and weighing thirty-five ounces to the foot.

We put up some copper rods, twenty-eight strand No. 18 wire, a number of years ago, which we bought direct from the manufacturer for about twelve cents a foot. A copper-lightning-rod agent that sold his rod for twenty-five cents a foot claimed that my rods were all rusted off under the ground. We dug down and found them apparently as good as when put up. If you want a copper rod, don't pay an agent twenty-five cents a foot, but buy direct from the manufacturer for ten or twelve cents a foot, and save that thirteen or fifteen cents a foot the agent gets out of the deal. Some manufacturers will sell only through agents, but others will sell direct to the farmer.



CISTERN FILTER

In making a hole to ground a rod ten feet deep, if the ground is hard, take a plate of iron three inches square by one half thick; drill a hole in the center that will just slip over the rod you are going to make the hole with, slip the plate on the rod, and drive the rod down ten feet. Put a lever under one edge of the square plate and draw the rod up a little; let the plate slide down, and repeat the operation until the rod can be lifted out by hand.

Ohio. G. G. KIMMELL.

Fall Plowing

Fall plowing should be more generally practised than at present, although it cannot be recommended for all soils and localities. I find that when a sod or cover crop is turned under in the autumn, the amount of available plant food is increased for the crop next summer.

I regard fall plowing to be one of the best methods of combatting such pests as cut-worms, grub-worms and corn-root worms, which are often very destructive to corn.

Because the surface of ground plowed in the fall is drier at planting-time in the spring than that of ground not so treated, it does not necessarily follow that there is less moisture in fall-plowed ground. When ground is plowed in the fall the rainfall is better enabled to penetrate the subsoil, thus allowing the surface to dry more rapidly. I find that in the spring my fall-plowed fields usually contain a great deal more moisture, but at the same time have a drier surface than fields that are not plowed until spring. In sections where there is much rain during the winter it is better not to harrow the fall-plowed land in the autumn, especially fine clay soils that run together and pack.

As I have been a close observer of fall and spring plowing, I have found that my fall-plowed fields have generally yielded better crops in a dry summer. I find the same to be true in subsoiling. If spring subsoiling and deep spring plowing is done after the spring rains the result is likely to be diminished crops.

Illinois. WM. H. UNDERWOOD.

Pulling Fence-Posts

I will describe what I consider a capital way of pulling posts. Fasten a strong log-chain to the post near the ground by making half hitches around the post. This will shorten the chain and at the same time keep it from slipping. Shorten the chain in this way until there is just chain enough left to make a stationary loop. Now get a good pole or a strong rail and run through the loop and lift the post out. If the post is too large or has settled too much, use a heel, lifting the post by lever power. You will be surprised how easy a post can be pulled in this way.

Indiana. JAS. S. KNIGHT.

Forestry Exhibit at the Ohio State Fair

The Ohio State Forestry Society assisted by the Morrow County Society and by Professor Crumley, of Yellow Springs, gave an exhibit of the forestry products of the state that proved of unusual interest to the visitors attending the recent state fair. Modern forestry in Ohio dates back but four or five years, and owes its origin to the work of the Agricultural Experiment Station at Wooster, and to the reorganization of the Ohio State Forestry Society. The station, by sending to the different counties young forest trees grown by them for experimental purposes and giving directions for their proper care and cultivation, have interested many landowners in the planting of new forests and the proper use and preservation of existing wood-lots.

This exhibit formed a part of the regular experiment station plan of putting their work before the people of the state for their inspection, and was under the supervision of Professor Green, who has charge of the forestry work of the state.

Special attention was given to the subject of growing post and pole timber. The persons in care gave instructions to all inquirers as to procuring seed, planting and cultivating the locust, catalpa speciosa and Osage Orange, these being recognized as the three best varieties to plant for those uses.

Young trees of two, three and four years' growth were shown, so that the differences in growth might be seen. Sections three and one half feet long, and from six to eight inches in diameter, cut from each variety of forest tree native to Ohio formed one of the interesting features of the exhibit. Ashland County was represented by a very complete collection of small pieces of lumber from all the trees, shrubs and vines that grow within her borders. Morrow County was represented by lumber, leaves and sections showing annual rings of her native trees. Professor Crumley showed by specimens and photographs, many of the more common phases of forestry work and also many rare specimens of interest and value.

Probably the table that excited most interest was where the second-growth timber of our native forest was shown, and the effect of allowing a large mature beech tree to stand among these young trees and rob them of the space and sunlight that belong of right to them. This was an object lesson that all owners of wood-lots could appreciate, and many as they went away resolved to put into practise what was so strikingly taught.

The interest shown was very gratifying to those engaged in the work, and seemed to mark a new era in Ohio forestry, for it is coming to be recognized by those who are informed on the subjects that if the hand-planting of trees was all there is of forestry, it would be at best a small affair and a comparative failure; that it can be a great success only when the owners of timber-lots will assist nature by caring for the trees she plants, and we shall have come to realize what a great part in our growth in wealth and prosperity we owe to our forests, and what a calamity their destruction would be to us.

Ohio. HORATIO MARKLEY.

Review of the Farm Press

Liming Land

THE beneficial results from the proper use of lime on land, especially to correct soil acidity, has increased the use of it greatly. Some, however, are in doubt about the best kind of lime to use. Regarding the carriers of lime, Mr. Alva Agee, in the "National Stockman and Farmer," says:

Some readers are confused by the various names given to carriers of lime. Any of the kinds of lime advertised correct the soil acidity and supply lime direct to clover, which has a special hunger for this element. There is no danger in the use of any of them just so long as they are not treated as fertilizers and dependence is not placed solely in them. Use any form of lime to get clover, and then give the clover a chance permanently to improve the soil. But some farmers will treat lime as a complete fertilizer. It is giving our Wooster station a large increase in grain yield, and the thoughtless landowner may infer that he can use lime to grow crops to be removed from the farm. Then, too, a caustic lime burns out the humus, and while that is one way in which it increases the yield for the time being, it leaves land in bad condition unless clover or manure is added, and for that reason some scientists will advise the use only of ground limestone. It cannot burn the soil, and no amount, however large, can do harm.

Limestone is the original source of lime in our soils. One hundred pounds of granular limestone will correct as much acidity as fifty-six pounds of pure lime. It is cheap because it requires only grinding, being offered for sale in carlots at a very low price per ton. It is good, safe material for use on soils that are not making clover. Personally I am not afraid of the use of caustic lime, knowing that the amount we recommend can do no harm if clover follows, but the granular limestone may become the most popular material because cheap and absolutely safe.

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The Spare Cow Best for the Dairy

In the "Agricultural Epitomist," Lewis Olsen cites the following experiment:

Some years ago the Minnesota Experiment Station conducted a five-year investigation of this subject. They found that the cow that carried the least flesh was the best for the production of butter; also that just in so far as one cow was a little smoother and plumper than the others would her butter-product cost more. It is well to remember that these results obtained were from accumulated testimony, and plainly show that not only through a short period of time, but during the entire lifetime the spare cow is by far the best dairy cow.

Here are some of the results obtained. Taking the average between the two types of cows in which grade Shorthorns represented the dual-purpose cows, six of these cows produced an average of 5,077 pounds of milk per year, which gave 229 pounds of butter at a cost of 13.38 cents per pound. The total average cost of feed per head was $30.64 and the net return in profit $10.37. The six cows chosen to represent the dairy cow of spare and angular form were taken among Guernseys and Jerseys and one grade Holstein. They produced an average of 6,700 pounds of milk each, which made 446 pounds of butter at a cost of 8.43 cents per pound. The average cost of the feed consumed by these cows was $37.60 per head, and the net return in profit $38.11.

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Outside Cellar for Storing Vegetables

In the "Practical Farmer," A. E. Page gives his experience with an outside cellar for wintering fruits and vegetables as follows:

Nine years ago I had a brick outside cellar built at a contract price of $125 for the building above a stone foundation laid one foot underground. The walls were double brick, nine feet high, with air-space between the walls, the hardest glazed brick obtainable being used. At the bottom inside were eight square holes about six by twelve inches, with galvanized iron screen set in when built for ventilators. At each end of the building were wide doors to take in barrels and boxes of apples, potatoes and all vegetables. The door opening on to driveway was double, of matched batten doors; on the end next to house was one batten door outside, and inside one had upper half a window-sash to give light when required. The floor was ground clay. The ceiling was matched pine nailed under two-by-eights and filled lightly with sawdust above which was another floor and another foot of sawdust tramped solid to a side-board at the edges to keep it from rattling down between walls. Roof was well built, and covered with the best cedar shingles. Gables sided, with door in front end to use with step-ladder for storage purposes. Two three-foot capped ventilators at each end of roof kept a free circulation of air from below. At night the doors were left open, except in freezing weather, a screen-door being used inside. The wood-work was painted and trimmed to match the dwelling-house, from which it was separated by ten feet. The outer walls were covered in two years by climbing roses, jasmine and trumpet creeper, which kept it very cool, and also made it a thing of beauty. Size of building, 12x24 feet. We filled it with apples, canned fruit, vegetables, bulbs, celery, meat, etc., and found it in every way satisfactory.

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How Small a Silo is Practical?

In the "Rural New-Yorker," Edward Van Alstyne answers the question about little silos. He says:

This question comes to me again as it has many times before. Its answer, like many others of like nature, depends largely on the man. For some with one cow it would be a practical thing to sink a molasses hogshead in the ground and fill it with cut corn. Its practicability would depend on the amount of roughage available, and the lack of other succulent foods, as well as the means at hand for growing the corn, and putting it into the silo. Now these same principles obtain in every case up to ten cows. After that in any case where corn will grow, and the silage milk can be sold, I believe it is not a question, "Can I afford a silo?" but "Can I afford not to have one?" The average feeding season is about five months, or 150 days. The ordinary cow will eat about forty pounds of silage daily, or three tons in this period; ten cows mean thirty tons. A round silo twenty feet deep (I do not believe it wise to have one above ground of less depth), and twelve feet across would hold thirty-eight tons, allowing for settling, would mean just about thirty tons actual. One the same height and fourteen feet in diameter would hold fifty tons, about forty actual after settling. This would cost but a trifle more to build, and would hold enough more for a longer season, more cows or summer feeding, either of these certainly a practical thing.

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Teaching a Colt to Drive

In the "Farm Journal" Legrand Vars tells how to construct a bitting-rig and teach a colt to drive as follows:

Take back-pad, belly-band and crupper of single harness, fit same to colt, use open bridle arranged for side check. If none, cut blinds off from some old blind bridle; remove check rein. Take a cord eighteen feet long (a clothes-line will do), double it, tie a half knot in doubled end making a loop in center of cord. Place loop over check-hook, bring ends of cord forward, one on each side of colt's neck, passing ends through gag-runners on each side of bridle, and on down through rings in bit and back to terrets in back-pad, and tie in a half bow-knot. Mildly tighten at first. After the colt gives up gracefully they may be drawn up. Have tension the same on both sides, so that colt's head will be directly in line with his body at all times, whether turning, going ahead or standing still. Colt's neck will not tire of this bitting-rig, as he can put his head down and up a few inches, at pleasure. He will seldom rear, and if so, will not lose his balance and go over backward.

Remain with the colt. Attach reins to bridle, run them back through thill loops on each side of colt and teach him to rein, move and stop at command. Use only two words, *go* and *whoa;* more are confusing. Keep quiet, go slow; all is blind to the colt. Do not teach colt to back at first. If you do he will back when bitting-rig is drawn up. Make him acquainted with as many things as possible.

Overcome fear with kindness. Win his love and get his confidence. Handle both sides the same. Get perfect control of his mouth; this is the keynote. Make him feel that you are his protector and master. Seldom use the whip. When obeyed, caress with a gentle slap on the neck. Sugar or apples will do. When colt reins to right and left, moves and stops at command, and has becomc acquainted with shafts and vehicle, he is ready to hook to a light cart. Teacher should possess self-control, love, patience, perseverance, firmness and a mild voice. No runaways, kickers or balky horses when educated in this manner.

◈

Reward of Skilled Feeding

The "American Cultivator," in discussing the question why farmers keep on buying low-grade feeds on the market, and neglect to study the quality of what they buy, says:

A professor in dairying at one of the New York experiment stations visited a large number of farms in the neighborhood. He took notice in particular of one of these farms on which there were thirty head of cattle, and asked the owner if he would have any objections to allow a man to come and weigh the milk from each cow and take samples. The farmer agreed, and for one year an exact record of the feed and of the milk was kept. At the end of the year it was found that the cattle had consumed $28.50 worth of feed and produced $25 worth of milk. The farmer had lost $3.50 on each cow in his herd, or something like $100. In other words, he was not even getting full market price for all the feed he was giving his cattle. In return for all his work he had received rather low price for his feed, and had a large amount of manure, but had not really received any pay for his work. An interesting sequel to this incident is related. The same herd was bought by the experiment station and fed under the control of the management. At the end of the next year it was found that the cows had eaten $28 worth of feed and had produced each about $38 worth of milk. A result which shows there is much in good management and a study of the feed market.

◈

Good Roads at Small Expense

[CONTINUED FROM PAGE 1]

than upon the style of drag. As logs suitable for drags are not conveniently available in many sections, the plank drag is adopted. The cost is from an hour's work up to $3, depending on the materials used and the labor employed. Any farmer can make a drag.

Fig. 1 shows the split-log type. This is made by splitting a log ten to twelve inches in diameter and about nine feet long. Avoid heavy wood, as oak. Though not essential, it is better if the log splits straight. It will then better adapt itself to the purpose in view. Bore holes in the front half or slab so that a forward slant will be given the lower part of its face. The holes in the rear slab may be bored straight. Two-inch holes are advised. Where to bore them and the distance apart are indicated in the accompanying diagram. The two slabs are held together by means of three braces with slightly tapering ends driven into the holes, split and wedged. Drive the wedges in crosswise of the grain of the wood. Toe-nailing might be resorted to if necessary. The braces should be about two and one half inches in diameter. To give rigidity and strength to the frame, a diagonal cross brace may be placed between the slabs at the lead-end, as shown. Shoe the lower edge of the front slab at this end with a piece of iron about four feet long. An old wagon tire will suffice. Bolt it on securely, allowing the heads of the bolts to be countersunk. The function of this strip of iron is to enable the drag better to take hold of hard surfaces, and cut dirt to work toward the middle of the road. Without it, the drag at this point would soon become rounded, thus impairing its usefulness. How to attach the chain by which the drag is drawn is shown in the illustration. In order that the drag may be drawn at an angle of about forty-five degrees the chain is arranged with a long and short hitch. The face of the front slab should be free from projections and irregularities which would interfere with the free sliding of earth along toward the middle of the road. For this reason it is necessary to attach the chain as shown. The long hitch goes over the front slab around a cross-piece, and is fastened to the back slab. The other end of the chain or the short hitch is passed through a hole in the front slab. It can be fastened here, or to give a stronger hold on the frame it may be fastened to the back slab, as indicated in the drawing. It is of course understood that the two slabs face the same direction.

Fig. 2 illustrates the plank drag. It is made of pine timbers nine feet long, eight inches wide and two inches thick. The two pieces may be reënforced on the inner side by strips of two by six inches, giving greatcr strength and rigidity to the drag. In other respects the plank drag is practically identical with the split log. The former has an advantage in that it is lighter, more easily controlled and easier to make. To afford the driver a place to stand a platform of one-inch plank is laid upon the cross-pieces. By shifting his weight to different points on this platform the driver can cause the drag to take hold or run practically clear at either end. The surface of the road will suggest how to manipulate the drag.

Fig. 3 shows a drag made of railroad rails eight feet long and fastened two feet six inches apart with one-inch bolts, with taps screwed up against the face and back of each rail, as shown. The hitch is the same as in the case of the wooden drags. This drag is heavy and will take hold where lighter drags make small impression. It is a great tool to get a road ready for the lighter drags. Both pieces cut dirt and work it toward the middle. For taking off projections and smoothing the surface this drag has no equal. It is especially effective in dragging roads that are slightly frozen, in which condition they do not yield to the work of wooden drags.

To summarize: Build a light drag—do it now. Run it at an angle of forty-five degrees, working a little earth toward the middle of the road at each operation. Drive the team at a steady, even walk. Ride the drag. Work as much of the road as can be got at handily. Do the work thoroughly. A boy can operate a drag. Do not drag a dry roadbed except for experimental purposes. Drag as soon as possible after each rain, when the surface is in a puddled condition. Drag at all seasons, whenever time allows—and it does not require much time. Roads dragged immediately before a cold spell will freeze in a smooth condition. When roads are first dragged travel should be to one side if possible until the roadway has had time to freeze or dry out. Ten to fifteen applications of the drag in a year should be given. By making the roadway smooth and hard travel is distributed over the entire area, thus increasing its wearing qualities and contributing to the pleasure of traveling in vehicles or on horseback. Dragged roads can be traveled with safety and pleasure, day or night, every day in the year.

Social commingling and neighborliness are stimulated by dragged roads. Accidents are avoided. Good horsemanship is promoted. Land values are enhanced. The cost of transporting farm produce is reduced. Thrift, neatness and progress are encouraged in all departments of farm-work. Every farmer whose land adjoins the road ought to make a drag and keep that part of the road in repair. I have already enumerated the compensations for the work. Neighborhood road-dragging clubs should be organized. Prizes might be offered for the best mile of road maintained with a drag. Merchants and other business men in the smaller cities can easily be interested in this matter. In this connection it is worth noting that the Iowa legislature at its last session passed a law directing township road supervisors and trustees to have the roads dragged at least ten times a year with a split-log or plank drag and pay fifty cents a mile for each dragging.

◈

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We receive many letters from our people wondering how we can make such a good paper as FARM AND FIRESIDE for the price which we get. One reason is that the amount received for subscriptions is only part of our income. In addition to this we receive a large amount from the advertisers for space. This enables us to give you a larger and a better paper than we could otherwise. The firms who advertise in FARM AND FIRESIDE are worthy of your patronage in every respect. If you see anything advertised which you need, write to the firm for particulars and a catalogue. This is practical reciprocity.

◈

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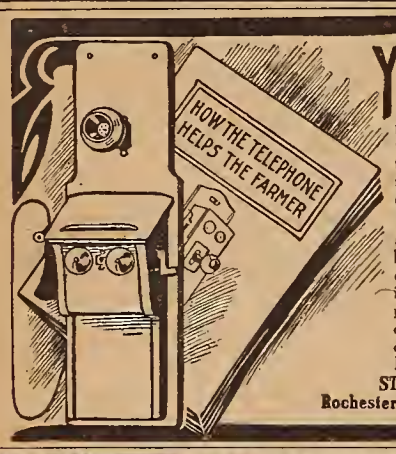

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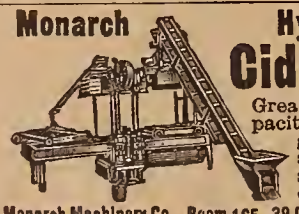

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Gardening

Profits in Mushroom Growing

DURING a trip through New Jersey I came within sight of the Shrewsbury catchup factory, and there saw what remained of three large greenhouses. I was told that these greenhouses had been put up by the proprietors of this canning or preserving establishment for the very purpose of growing mushrooms needed for canning, for flavoring some of the canned goods and catchups, etc., and that thousands of dollars had been expended in making the equipment of these houses complete and best suited for the purpose of producing mushrooms. Notwithstanding these facts, and the other that skilled help was employed in the undertaking, and that no expense was spared in the purchase and careful preparation of the manure, the results were so meager and uncertain that the undertaking was entirely abandoned.

Even the best "new-culture" spawn would only give an occasional crop, never a full one, and at times nothing worth mentioning.

This, together with the recent experience of some neighbors of mine who also engaged in mushroom growing on a somewhat more extensive scale, under apparently very favorable conditions, and with a complete equipment, but failed to produce even a single basketful of mushrooms, again proves to me that there is hardly a crop that has more chances of disappointing the grower than mushrooms. The wise reader of FARM AND FIRESIDE will not go wild over the brilliant prospects of the immense profits to be found in the mushroom-growing industry so often exploited in the columns of some of the rural papers.

Blanching Celery

A Webster's Grove (Mo.), subscriber asks how and when to bleach celery. This is the old question. I prefer to plant mostly celery of the early self-blanching type, and when I succeed in getting a strong healthy growth the problem how to blanch is quite simple. I just enclose the row, or double row, within two lines of boards set up slantingly against the plants from each side, as on various occasions described and illustrated in these columns. This is done after the plants have reached some size, so that the tips of the leaves at least will project above the boards. The latter may be held in place by little stakes, or in any other convenient manner. It is enough if the plants are enclosed in such a way as to exclude light from the sides. When we have water privileges, as the use of city hydrants, or in a season of plentiful rainfall, it is perfectly safe to plant celery in double rows. Without artificial irrigation, or in a dry season, the celery in single rows, with a fairly good space, say three feet, between the rows, will grow larger and healthier than where the rows are crowded together more closely. A mulch is good in any case. My New Jersey neighbor grows his celery in rows like any other garden or field crop, keeps it in good growth by thorough cultivation, and when of the required size, takes up the plants and crowds them together in a trench, blanching them perfectly in the course of two or three weeks. He finds this the most expedient and cheapest method of blanching celery for early market.

Melon-Blight

My old neighbor, T. M. White, speaking in the "Rural New-Yorker" of the "passing of the muskmelon," says:

"Since the well-grown and matured muskmelons have almost disappeared from the fruit-stands and markets, we begin to realize that there are few things, if any, that are a more general object of desire for the members of the family, or are more painfully missed by them than a supply of fine melons. Those who but a few years ago were accustomed to enjoying them in all their freshness and lusciousness as they came directly from the garden, will again and again ask the question: 'Are we ever to have any more good melons?' Are there no such varieties as we used to have, and where are they to be found?' So it now seems that for the home garden they are almost indispensable; and where but a few years ago they were one of the chief resources for money for a large number of farmers, the crop of to-day is of little value to them and but a source of great disappointment. A long experience enables me to say that our varieties are as good to-day as they ever were—our growers as skilful in trying to raise them, but the obstacle to the successful production of good fruit is the destructive melon-blight, and the problem is how to control it."

Mr. White recommends change of location of the patch, thus getting away from the danger of infection from old plantations, and the application of dry Bordeaux mixture, dusting it under and through the foliage from the time they begin to set fruit and continuing it during the entire season. In my own vicinity this year, owing probably to fairly favorable weather conditions, especially plenty of heat and a scarcity rather than overabundance of rainfall, our melon vines have made good and healthy growth, and comparatively few hills have been affected by the blight. Our melons are therefore about as good as ever, especially our Emerald Gems.

When I speak of the "passing of the melons," I refer mostly to their disappearance between night and morning. My patch of the Gold Coin especially, which is at a little distance and beyond sight from the house, has had to suffer severely by the depredations of the youngsters (of both sexes) of the neighborhood. All the earlier (and best) melons have thus "passed," and from some of the hills even the vines have been torn up. This "passing" of melon and other crops has really become more serious for us than any insect and disease problem, or than both together. By persistent spraying with Bordeaux mixture (wet) I can in a measure at least control the blight, and with arsenate of lead or disparene added, I am always able to control the "bugs;" but it is a difficult task to find means of controlling the pilferers.

As to varieties, I am sure we have better ones now than were ever known before. We have one which for want of a better name we call the Michigan, and which seems to be the acme of perfection. It is as large as the largest, with the exception of Montreal and Banana, with a very small seed cavity, of salmon flesh, and the richness and sweetness of the Emerald Gem. It has no faults that I can see this year, but I am unable to find out where the first seeds of it were obtained. It seems to me a local melon, not being in the general trade, or in general cultivation. Evidently it is the melon that has or should have a future. With the exception of a few Emerald Gems, I shall plant no other next year.

Picking Apples

A New England paper says that the "common practise in New England is to pick apples from the tree, put them in piles under the trees, and barrel them from the piles, using a basket with swinging handle, so that it may be lowered to the bottom of the barrel in dumping."

This is a very poor practise. There is no better way than to pick the apples in baskets or bags, empty them on the sorting-table, and run the good stock directly into the barrel, heading this up at once, and starting them on their way to cold storage at the earliest possible moment.

The Muskmelons

A few days ago I made a trip through New Jersey and Long Island. When I left home our melons had just begun to ripen, and some of them were as fine and palatable as ever. I expected to find plenty of good melons on my trip, and especially in the vicinity where I used to raise such fine muskmelons and watermelons in 1885 and 1899. But I was sorely disappointed. What melons I did find were too poor for eating, although of the old inviting exterior appearance and fairly good aroma. Even the Gold Coin, seed of which I had saved from extra-selected specimens with my own hands, and which was planted on the sandy soil of central New Jersey, were sugarless and without flavor. The excessively rainy season was probably to blame for this in part, but as the melon-blight has become so prevalent all over the country, we can hardly expect to find the melons in the market of the old superior quality.

A melon that has been taken from a blight-infected vine is never of A No. 1 quality. It takes healthy foliage and plenty of it, to bring out a good melon.

T. Greiner

Fruit Growing

Silver Prune Not Bearing

M. F. F., Georgetown, Washington—It is more than likely that your Silver Prunes are injured by some insect. If you will send me a specimen of your trees I will report to you further. When you do so, also let me know if the soil conditions about your trees are good, or excessively wet.

◈

Borers in Ash

J. T., Goodland, Kansas—Where the borers are very troublesome in ash, as they are in portions of eastern Kansas, it is almost impossible to keep them in check, and there is no practical remedy that I can recommend to you. The best thing for you to do is to set out some other trees that are not subject to this injury.

◈

Fertilizer Injuring Land

A. H., Garland, Kansas—If you will give me the name of the fertilizer which you think would hurt land, or that you have heard would hurt land, I should be very glad indeed to advise you in regard to it. The fertilizer question is a very complicated one, and it would be out of the question to discuss it to any considerable length within the limits of our inquiry department.

◈

Where Tokay and Hamburg Grapes Are Grown in California

M. P. P., Idaho—These varieties are practically all grown north of Modesto, California, and the biggest districts center at Lodi and around in the territory tributary to Sacramento. The Malaga center is Fresno. Very few fresh grapes are shipped from southern California, but they raise many wine grapes there.

ALDIN ANDERSON.

◈

Aster Wilt

J. B. W., Charlton, Massachusetts—Asters are occasionally much troubled by what is sometimes called aster wilt. This disease causes the plants to wilt and look as though they needed water, and in a few days the plants are dead. There is no satisfactory remedy now for this disease, and the best treatment is to plant in new soil each year.

Occasionally the same effects are caused by lice which cling to the roots and feed upon them, but in this case I take it that you have examined the roots and find nothing of this sort.

◈

Borers

J. S., Eldorado, Montana—Your apple trees are probably injured by what is known as the flat-headed apple-tree borer. This worm is the larvæ form of the beetle, which lays its eggs in the crevices of the bark. These soon hatch in young worms, which burrow through the bark into the tree. The best remedy is what you are applying, that is to go over the trees with a knife and dig out the worms. This should be done in the spring and again in August. If you go over them carefully you will find that they do not increase from day to day. Going over them once thoroughly in August will be sufficient.

You can generally tell where the worms are working by the color of the bark, as it is darker where the burrows are than the healthy bark.

◈

Evergreen Bag-Worm

O. K. B., Clear Spring, Maryland—The specimen of worm which you sent on, which you state is injuring your arbor-vitæ, is what is known as the evergreen bag-worm. This is occasionally very troublesome in some of the Central and Southern states. The larvæ have the interesting habit of covering themselves with a little silken bag that they cover with the leaves of the arbor-vitæ, red cedar or other leaves on which it lives. As it moves from place to place it carries this bag with it, and when feeding only a small portion of the body is exposed. The worms continue to grow until late in summer, when they wander about, sometimes leaving the trees altogether and fastening their bags to fences or other shelter near by and in this way they are spread. When they have reached a place that suits them the bags are firmly fastened to it, and the opening closed. The males have wings, but the females do not leave the sacks in which they are formed, and have only rudimentary wings. The eggs develop and finally fill up the bags and the females die. The eggs rest in the fluffy mass in the bags, where they hatch in summer, and the young emerge to commence anew the round of life.

The best way to hold this insect in check is to pick off and destroy the bags in the winter, and if this is thoroughly done no caterpillers will appear on the trees in the spring unless they crawl from other points. Spraying the plants with paris green and water, the same as recommended for the codling-moth is also a very satisfactory remedy, if applied during the summer months when the worms are feeding. It is very important to keep the worms off of arbor-vitæ, since if the foliage is once removed from them the hedge suffers rapidly and often dies. In orchards where spraying is done for the codling-moth, this insect is incidentally destroyed, and no other measure need be taken against it.

◈

Wealthy Apple as a Long Keeper

C. A. P., Sioux Falls, South Dakota—Under ordinary conditions you will find the Wealthy apple will not keep longer than the first of December in your section. However, when grown on heavy clay soil, and allowed to color up well on the trees, it may sometimes be kept all winter in a cold cellar, and it is one of the best apples I know of for keeping in cold storage. They should be gathered as soon as they begin to fall, provided they are well colored. Store in a cold place if you wish to keep them. If you are marketing a lot of them you will probably get best returns from selling them as autumn apples, as the price for this class of fruit is generally higher in your section than for winter varieties.

One of the worst faults of the Wealthy is that it wilts when kept in an ordinary dry cellar. On this account I like to keep it in a cave or in a barrel that is headed up. The Wealthy apples will be in the market from some sections by early in September, and will continue in the market probably until the first of January.

In a small way I think perhaps you had better gather the fruit and wrap each apple separately in paper, as when treated in this way it keeps better than when placed in bulk without such protection. Of course it is important to carefully hand pick the apples from the trees, and never allow them to be even slightly bruised.

◈

Cider Vinegar

F. H. P., Roswell, New Mexico—Cider vinegar is generally best when made from well-ripened, late-maturing apples, since these generally contain a larger amount of sugar than the early apples. The best way to handle it in barrels is to fill the barrels about two thirds full. Put a screen over the bung and leave them in a warm place exposed to free circulation of air. If put in a cool cellar it may be a year or more before the vinegar will be fit to use. If kept in a warm place cider becomes vinegar in a very short time. The vinegar fermentation is hastened if a quart or so of good old vinegar is added to each barrel of cider, so as to give it a good start. After the vinegar has become marketable, it should be racked off, so that it will be clear.

◈

Canker on Raspberry Canes

Mr. E. S., Pierceton, Indiana—I have examined with interest the canker-like rough swellings that have appeared on your raspberry canes near the ground. I saw the same thing quite abundant in a raspberry patch several years ago in Wisconsin, and it did considerable injury. I do not know of any careful studies that have been made of this disease. In the case referred to the injury extended over some twenty acres of raspberries, and caused so much injury that it was thought best to plow them up. I am very much afraid that this is liable to cause you considerable trouble, and do not know just what treatment to recommend. It seems to me, however, if it is abundant on the new canes, I should suspect that the usefulness of the plantation was about ended. It is quite likely that spraying the plants with Bordeaux mixture early in the spring may do something to prevent the spread of this trouble as well as stop the spread of anthracnose. I wish I could advise you more definitely in this regard.

Samuel B. Green

GREAT STOVE OFFER

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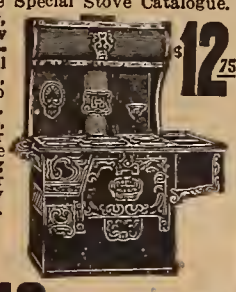

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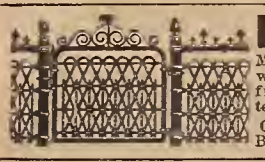

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Poultry Raising

Eggs for Incubation

It will soon be in order for incubators to be operated, and there is one matter that deserves more consideration than anything else connected with such work; that is the use of suitable eggs for hatching. When the operator has several incubators he goes among his neighbors and purchases a supply, and that is where the failures usually begin.

The egg is the main factor, but operators seem to depend more upon the incubator than the eggs, yet the most perfect incubator cannot hatch a large percentage from eggs that will not produce strong vigorous chicks. Not only should the eggs be as uniform as possible in shapes and sizes, but they should also be from healthy, active parents, that are kept under the most favorable conditions. An examination of the eggs in the egg-drawer of an incubator will usually show that the operator, when purchasing his supply, accepts all that are offered, for there is nothing that will show such lack of uniformity as the eggs in a large incubator, and it may be stated that the chicks hatched therefrom are usually a motley, unattractive crowd of youngsters that are so different from one another as to show at a glance that in the brooder it will be a race for the "survival of the fittest." In other words, the chicks will about be on a par with the eggs used in the incubator, for a large proportion of the eggs will fail to hatch, and a large number of the chicks will perish because they may be lacking in vigor. They will be what their parents are, and the difficulty of securing satisfactory eggs is increased according to the number of neighbors required to assist in providing the supply.

The best way to secure large hatches is to have your own hens, and have a number sufficient to provide the desired number whenever the incubator is ready. Use only the pure breeds, preferring hens at least two years old, and be careful in selecting the eggs, endeavoring to use only those that are as perfect in size and shape as possible. If any of the eggs do not come up to the standard of merit, let them be sent to market. It is better not to fill the egg-drawer than to use eggs that will not hatch, or which may not be suitable in other respects, for unhatchable eggs used in an incubator will be wasted, thus entailing a loss. Do not forget that good eggs will give good hatches, and that nearly all failures with incubators are due to unsuitable eggs, and not always faults of the incubator.

Buying Pure Breeds

At this season of the year the breeders begin to market their surplus. Many of them send their "culls" to market to be sold for the table, but they prefer to sell at better prices to those who desire birds for next year. A "cull" is not necessarily an inferior bird, from the farmer's standpoint. It may possess an unimportant defect of comb, the eyes may not be of desirable color, or some slight blemish of plumage may exist, yet the "cull" may be full brother or sister to some grand sweepstakes prize winner, being fully as pure bred, and also in perfect health. The "cull" is not always an inferior bird, being a "cull" only by comparison with the best show birds, and therefore can be purchased for much less than its real value to the farmer.

If the farmer can procure a male and several females of the same breed at this season, he can get a good start in the spring. It is probably better to begin with only one breed, and avoid crossing, as the crossing of pure breeds, whether of cattle, sheep, swine or poultry leads to the destruction of the breeds. In nearly all cases, when the attempt is made to blend the best qualities of two different breeds, the offspring is not equal to either parent, and in the course of a few years there will be no uniformity, and the stock reverting to the scrub. Too much mixing is no better than keeping scrubs. It is right and proper to grade up a common herd or flock, but to cross two breeds is a mistake. Where crossing is practised largely, as with poultry, the result is nearly always a failure, there being no uniformity of color, size, or laying qualities. To cross the breeds is to lose more than is gained.

Whey buying pure-bred stock the fall of the year is the best season for so doing, if the prices to be paid are considered. The majority of breeders do not care to winter more stock than they can accommodate comfortably, and are consequently disposed to sell at lower prices than in the spring. Better stock can also be obtained in the fall, as breeders have more on hand from which to select. The rule is—buy pure breeds in the fall and eggs in the spring (if improvement is deferred until spring), but the better plan is to buy birds in the fall.

Lice Harbors

How to avoid lice in the poultry-house is an important matter, for it is difficult to escape the pests, but it is possible to lessen the liability of their presence. One of the main propagating factories that keep up the supply of lice is the nest-box that cannot be removed, for of the many appliances for imposing work upon the poultryman, by harboring lice and increasing filth, that of fastening the nest-box to the poultry-house in a manner to prevent its easy removal is to be condemned, as a nest-box is the place selected by the lice in preference to any other.

Utilizing Small Potatoes

The small and unsalable potatoes are just as suitable for the hens as are the finest and largest shipped to market, for the value of an article does not always depend upon its market price, but rather upon the use to which it may be applied. All classes of poultry relish potatoes, and if the small ones are cooked and fed to them, both hens and chicks will pick them to pieces without any other preparation. For ducks and geese small potatoes are excellent. Store them in a convenient place, where they can be easily handled for winter use. Boiled potatoes in milk, where there is plenty of the latter article, is an excellent ration, and a mixture of one third corn-meal and wheat bran with the milk and potatoes will make the young chicks grow wonderfully.

Roup in the Fall

Roup is not strictly a winter disease. It spreads from flock to flock rapidly in the fall season, especially when rains are frequent. It is more economical to ward it off than to attempt a cure, as time and labor are required to handle a flock with roup, while a cure may not be effected, even with months of work, for which reason it will not pay to attempt to eradicate the disease unless the flock is a very valuable one. East winds, that keep the atmosphere damp for several days, even when the weather is not very cold, will increase the cases of roup if it gets a start. Roup is a contagious disease, its presence being indicated by a foul odor, and it can be carried from one locality to another by sparrows, pigeons, and other birds. Poultry-houses that are warm, but well ventilated, such as an open shed that contains no cracks or openings for the winds to get in, except on the open side, and which expose the birds to the warmth of the sun, are better than medicines, as the conditions of management govern the prevalence or eradication of all diseases that affect poultry. Some families of birds are not hardy, hence the first object should be to begin with birds from flocks that are known to be free from disease.

Pitt Games

In the South the Pitt Game is found on many farms, not because of their pugilistic nature, but for the reason that they are hardy when matured, and are disposed to protect themselves and young against many enemies that attack some other kinds. The males are savage, and quickly attack hawks, while the hens make the most careful of mothers. Pitt Games are not considered pure-bred fowls, as they are sometimes produced by crossing several breeds of Games together, but no blood but Game is permitted. The Indian Game, which is not a Pitt Game breed, produces an excellent fowl, hardy, large, and splendid for the table. The Indian Game is a pure breed, being entered in the "Standard." Pitt Games are said to be somewhat tender when young, but are hardy when grown, like the turkey. The hens are not above the average as layers, but they are splendid sitters, and when in charge of a brood of chicks will die for them, fighting animals or birds in defense of their young. For the table they have no superior, ranking with the Dorkings.

P. H. Jacobs.

The Tonic Question

is how to make the steers and hogs fat quickest and cheapest—the cows give most milk for food eaten—the teams and driving horses show best condition and fitness.

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the prescription of Dr. Hess (M. D., D. V. S.) contains the bitter tonics for the digestion, iron for the blood, nitrates to expel poisonous material from the system and laxatives to regulate the bowels. These ingredients are recommended by Professors Winslow, Quitman, Finlay Dun, and all the noted medical writers. Besides increasing growth and milk production, Dr. Hess Stock Food cures and prevents stock disease.

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400-pound per hour capacity, the best separator made in the world provided we receive your order within 30 days.

SEND NO MONEY. Cut this ad out and send to us and we will send this big, 400-pound per hour capacity, New Improved, Model K Economy Hand Cream Separator by freight, C. O. D., subject to examination. Examine it at your nearest railroad station, and if you are convinced it is the equal of any separator you can buy anywhere for $100.00, then pay the railroad agent our special thirty-day offer price $24.95 and freight charges. The separator weighs about 200 pounds and the freight will average about $1.00 for each 500 miles.

TAKE THE SEPARATOR HOME, give it a thorough trial, compare it with any other separator made, and if you do not find this new, big, 400-pound per hour Model K Economy Hand Cream Separator will skim closer, skim colder milk, run easier, clean easier, and handle better than any other separator made regardless of name or price, if you are not satisfied it will outwear any other separator made, if you are not convinced it is in every way the highest grade cream separator made in the world, you can, any time after giving it the most thorough trial for any part of 60 days, return it to us at our expense and we will immediately return your $24.95 together with any freight charges paid by you.

THIS OFFER IS GOOD ONLY FOR 30 DAYS. To get this new, big, 400-pound per hour capacity Model K New Improved Economy Separator for only $24.95, less than one-half the price for which separators are sold to dealers in carload lots, and one-fourth the price at which inferior separators are sold at retail, to take advantage of this extraordinary $24.95 price WE MUST RECEIVE YOUR ORDER WITHIN 30 DAYS.

WE HAVE 3,000 of these new big 400 pounds per hour capacity Model K Economy Separators on hand and as a most extraordinary offer and inducement to dispose of them all within 30 days we make this astonishing offer. Send no money. Pay the $24.95 to the railroad agent after the machine has been received, then try it 60 days and if the separator is not entirely satisfactory return it to us and get your money back.

THIS SEPARATOR is covered by a written, binding 20-year guarantee. We will always furnish you repairs in the years to come. We guarantee the machine to do everything that any other separator will do and do it easier and better. Don't wait until next spring and then pay $75.00 or $100.00 for an inferior machine. Send us your order immediately. Your order must reach us within 30 days to get the benefit of our $24.95 price on this big 400 pounds per hour capacity Model K Economy Separator, the best separator made in the world. If you don't order this Big Machine at $24.95, don't fail to write for our free Cream Separator Catalogue. Address,

SEARS, ROEBUCK & CO., Chicago.

Not only *all* the cream, but *better* cream—and so bigger profits, if you

Use The Improved Frictionless

EMPIRE Cream Separator

Easy to run, easy to clean. Let us *prove* its superiority. Dairy books *free*. Write today.

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DEATH TO HEAVES Guaranteed

NEWTON'S HEAVE AND COUGH CURE
A VETERINARY SPECIFIC.
14 years sale. *One to two cans will cure Heaves.* $1.00 per can. Of dealers, or express prepaid. Send for booklet.
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Live Stock and Dairy

Cleaning Dairy Utensils

For wooden utensile there is nothing better for cleaning and sweetening than finely ground quicklime. Scour out with this, and occasionally have the utensils full of lime and water. Soda and hot water may be used for all the utensils, but its regular use for wooden vessels is not advisable. It is not absolutely necessary to rub out the churn with salt, or to treat the worker in like manner. If the wood is clean and not saturated with grease, the butter will not stick. Always commence by cleaning utensils with warm water, and then scald with boiling water afterward. W. R. GILBERT

Losses at Farrowing Time

One of the most fertile causes of loss to those engaged in the hog business is the fatality among young pigs at farrowing-time. In proportion as the farmer takes measures to prevent such losses his final income from the swine husbandry is increased. The loss of a single pig at farrowing seems a small matter—too insignificant for consideration; but nevertheless it means one less in the feed-lot, and one less to go to market. When one is multiplied by two or three, or when the whole litter is allowed to die or to be killed, then the business assumes such a discouraging aspect as to cause some farmers to become disgusted with the uncertainties of the business, and to deplore their bad luck as inadvertable.

The writer has always maintained that a little extra care of lambs at weaning, and of pigs at farrowing, is more profitably employed than an equal amount of time given at any subsequent stage of their development; nor can redoubled zeal later atone for early neglect. The foundation of success is laid in a large and healthy litter. The feeder is handicapped who has in his feed-lot fewer pigs than he can provide for.

With the young pigs the fatalities are usually told in the first three days; during this time extra vigilance should be maintained. If necessary the pigs should be taken from the sow and be kept in a separate box or barrel. In this case they may be placed with the sow only long enough to suckle, and that need be done only every three hours. At first the pigs are often stupid and weak, and allow themselves to be laid upon; or their squeal is so little as not to be heard by the dam.

Ohio. GEO. P. WILLIAMS.

Feeding the Cow

The feed of support is always the expense. In the feed of production lies the profit. If the cow can eat only enough to decently support herself, then she cannot be profitable. If she is of the kind that supports herself in too much luxury—"puts it all on her back," as they say of some people—she cannot be profitable, for her products for the dairy must be out of proportion to feed consumed. It will not even things up for this cow for her feeder to shorten her rations with the hope of lengthening the profit, for she will simply assert her rule of priority, take her own share out first and return the balance, if any, to her owner. There has never yet, I believe, been found a feeding skill so cunning that it could change the individual tendencies of the cow, and in this case what cannot be cured should not be endured. The solution of that cow problem is to get the other kind of a cow. And the other kind is of that strain of dairy animals that have the ability of not only consuming largely of the food of production, but of making the produce out of it as well.

Now, this cow, while bred and directed in special, perhaps artificial lines, has never been taught that her first law is self-preservation; that to do the work of her master she must take care of herself; so to her, also, the food of support is necessary, and it is quite impossible that she shall show a profit from this basic feed. If the profit is absent the evidence is present that there is a lack of feed or proper care.

In this case the trouble is not in the cow but in the owner of her, and the cure for such an owner—well, now, how shall we prescribe for such a case? We may very minutely diagnose it, but all these years haven't we insinuated the foolishness of preaching around him? Perhaps the preaching and teaching have been so bad that there was not even the food of thought support in it for him. Then perhaps he has not heard of it.

Pennsylvania. W. F. MCSPARRAN.

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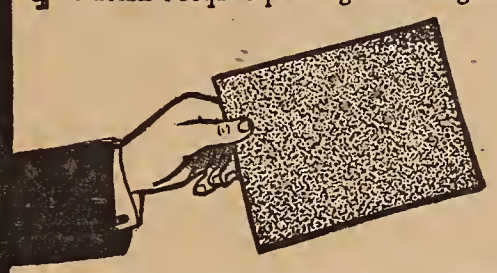

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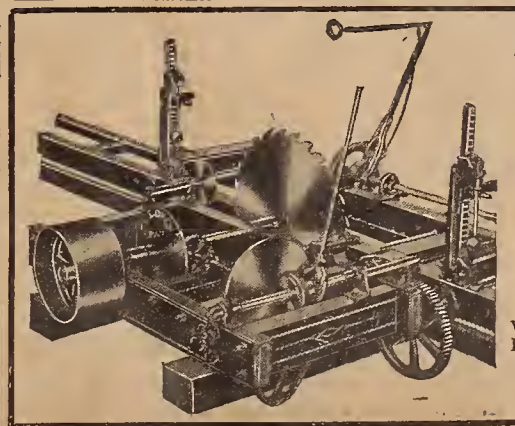

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The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit $1.00, addressed to "Law Department," this office, and get the answer by mail

Wife Not Signing Mortgage

J. H. P., Pennsylvania, writes: "A single man owns a lot in Pennsylvania. He marries and builds a house, placing a mortgage on property. Wife does not sign mortgage. The sheriff foreclosed mortgage, omitting wife and all heirs' names, can heirs and wife collect? How much and in what way? Property was sold in 1895; will limitation cut it out?"

If the wife did not sign the mortgage, then, of course, she would have a dower interest in the property; that is, a life estate in one third, provided she outlived her husband. So long as the husband lives the wife has no interest that she could enforce, and as she could not enforce it, the statute of limitations against her would not run until the husband died.

◈

Fruit Not Included in Crops

W. W., writes: "B. rents a farm from A., the contract calling for all crops raised on farm to be divided two thirds to A. and one third to B. There is an orchard and fruit on trees, and B. has had half from orchard. Has not B. the claim of one third of the fruit? There is nothing said of fruit in contract."

The word crop is generally defined as being the harvested products of grain and other cultivated plants, and also those plants while growing. Under this definition it would be safe to say that fruit grown on a tree is not a crop; so unless there is something in the contract or surrounding circumstances that would indicate that the tenant was to have a share of the fruit, my opinion would be that he would have no such share.

◈

Wife Giving Note to Her Husband

E. A., New York, writes: "In your issue of August 1st, I see stated that a note given by a man to his wife is worthless, in the state of Vermont. I would like to ask if this is the same in New York State?"

The law is different in New York from that of Vermont, and in New York the note would be perfectly valid, provided it is not to defraud creditors.

◈

To Obey Instruction of a Will—Compulsion of Executor

A. S., Pennsylvania, writes as follows: "A father, by his will, devised his property subject to the charge in favor of his daughter, towit: he, the brother and executor, is to furnish a comfortable home for the said daughter as long as the said daughter shall live, to give her a room comfortable in all respects for her own use and control, and to provide for her a comfortable living in sickness and health, and is charged to the estate. How can the daughter get the home-living when the executor will not comply with the will? How can she get it, and if she goes to court will the expenses come off of her and what will be the cost? Can she put him off of the farm, the homestead farm where the dowry is charged? There is coal and timber on the farm."

The courts will compel the executor to obey the instructions given in the will. I presume in Pennsylvania, this matter would come under the jurisdiction of the Orphan's Court. If he has failed to obey the will and she is obliged to go to court, the expenses of the procedure will probably be ordered paid by the executor.

◈

Misdescription in Deed—Inclusion of More than Seller Owned

S. A. M., Louisiana, writes: "In November, 1894, I bought a farm from one A. P. S. In making a title to this land from A. P. S. to S. A. M. the land was described as follows, lots south of lot No. 2, S. ½ lot No. 3, all of lots 4 & 5, containing 255 acres, more or less. Now on October 28, 1903, I sold said farm to one W. B. C., and gave him a warranty deed, describing the land: South ½ of lot No. 2, south ½ of lot No. 3, and all of 4 & 5, the number of acres not expressed. The condition of sale being $2,600, $600 cash, balance in five monthly notes with eight per cent interest from date. Two have been taken up, leaving notes No. 3, 4 and 5 unpaid, but not due until 1907, '08, '09. Now it has turned up that lot 5 does not belong to the tract of land, nor never did, though it has been described in this tract of land in several transfers. Though there is 272 acres of land in the farm without the said lot 5. The lot 5 in question contains 79.62, which makes a total of 351.62, but I did not have that amount expressed in the deed. I told the party at the time of the sale that according to the plat numbers there was 351 acres in the tract of land, but my deed from A. P. S. only called for 255 acres, more or less. Now since it has been discovered that lot 5 does not belong to the farm the present owner has advertised to the public that he will resist payment of the three outstanding notes when due, as he assumed payment of same through error. Now, I contend that I did not sell anything that I did not have a title to, also that the party has more acres than was expressed in my deed to the land when I purchased it; also that lot 5 does not take any of the improved portion of the farm, being woodland and of no value for agricultural purposes. I also contend that this farm is worth $4,000, and that I cannot give any rebate or cut on the place without losing money. Now, what I want to know is, can I have the sale of the place rescinded, and pay the party the money back that he has paid on the place and recover my farm? Also, can I not get an acreage rent on the place for the three years that the party has used it? There is a steam cotton-gin on the place. Should not I get some rent on that too? I will say that this party has held up those notes to the public, advising it not to trade for said notes, but has never come to me to see if there could be any settlement made in any way."

My judgment would be, upon the facts stated above, that the fact that the tract 5 was included when it should not have been included, was not a mistake that the purchaser would be entitled to take advantage of. This would be so, notwithstanding the fact that the seller might have warranted the title, for it appears from the above statement that the purchaser had sufficient information to cause him to rely upon the fact, that he was only getting the land that the seller owned, and the fact that the seller told him that there were about 255 acres would be sufficient to compel him to rely upon that statement. Perhaps the only thing that the holder of the note can do is to hold it until it is due, and then bring suit to foreclose it. Possibly if there has been a mistake the seller might go into court and offer a repayment of the money paid, and the purchaser would be compelled to accept the same and re-convey the property or take what is actually in the tract of land conveyed. I do not know that you can prevent the purchaser from advertising the fact that he has a claim against the note. If the sale should be revoked the court would make an equitable order in reference to the receipt of profits from the land.

◈

Right to Attend School—Tuition

J. K., Ohio, writes: "Two towns, A. and B., are situated four miles apart. Each has a high-school, A. a third grade, B. a first grade. My children first went to school at A., but found it more convenient to go to school at B. So accordingly got diplomas from county which under the Patterson law of 1903, says, pupil is entitled to a free school education as provided for by sections 4029-1, 4029-2, 4029-3, 4029-4, of the Revised Statutes of Ohio. Then notifying the school authorities at A. entered school at B. Three years have elapsed and the board at A. refuses to pay the tuition for the children, although they paid numerous others. What is the law in regard to tuition, and has distance anything to do with the question? If so, was it from the start or passing of the Patterson law?"

As I understand the law, it only provides that the tuition of pupils holding diplomas and residing in the township shall have their tuition paid when there is no high-school maintained in the township. The query is not very plain as to whether or not the town of A. has a high-school. If it has, and that is in the township, then that township would not be compelled to pay tuition for a scholar attending school somewhere else. Persons cannot select their own convenience about these matters. The query is not very plain as to the residence of the pupil, or the nature of the schools of A. and B.

◈

Divorce

G. H. P., Canada, writes: "I have a son that has a wife in Missouri and he is in Canada. He has done everything that he knows to get her up here by writing to her. He told her if she would say that she would come he would go for her, but she gives no satisfactory answer. If he should go for her and she refuses to come could he get a divorce from that state without staying there a year? He was born in that state and lived there until he came to Canada, three years ago. Canada grants no divorces."

By the laws of Missouri, a party would be compelled to reside in that state at least one year before he could maintain a suit. He has lost his residence in that state by his three years residence in Canada, so by going back there or to some other state and staying there the length of time required, he could no doubt secure a decree of divorce.

◈

Limitations—Note Against a Deceased Person

K. R., Delaware, writes quoting the following from a recent issue of this paper. "When a note is given, and the debtor dies and leaves all his property to his wife during her lifetime, no administrator being appointed, and interest paid before his death, how long will it remain good? What way would be taken to collect it, if his widow is neglectful in the payment of it?"

The proper way to collect indebtedness against a deceased person is to have an administrator appointed for his estate, and whatever property he may have had is liable for his debts, provided the debts are valid or not barred by the statute of limitations. In Canada a note is not barred until the expiration of fifteen years from the time it becomes due or the last payment made thereon.

"Query. The above case cut from a late number of the paper is similar to one that is worrying me. The debtor was my brother. We lived in New York, and he has been dead nearly three years, leaving a widow and small children. I need the money, but cannot distress the family for it. There is a valuable property, but it is heavily mortgaged. I have always been under the impression that interest being paid on a note would keep it good indefinitely. Is this so? Lately I have been told that notes in New York State were only good for six years. Is there anything that I can do to make the notes hold good until such time as the property shall be sold?"

If you will observe closely the query and answer above quoted, it says the note is not barred until a certain time elapses from the time that the last payment has been made. This payment might be a part of the principal or the interest. Either one would be such an acknowledgement of the debt as would take it out of the statute of limitations. In New York if a note is under seal the statute of limitation is twenty years, if not under seal it is six years. You might prolong the time within which the statute would run by having an administrator appointed and permit him to hold on until such time as it was desirous of settling the estate and he could accept the note. After that was done the statute would not run. I doubt if payments of interest on this note by either the widow or children would be sufficient to keep the statute from running.

◈

Closure of Road

J. L. M, Paulding, Ohio, asks: "Can a bard road that has been used for fifty years be shut up by a man that owns land on either side? Has he any right to shut it up without going to law?"

I do not know what the querist means by a bard road. A road that has been used for fifty years in a certain way, cannot be closed up except it was vacated by public authority.

◈

Right to Burial

L. P., New York, writes: "If a man dies in this state, has his wife the right to bury him, or has his relatives the right to claim the remains?"

The courts have generally considered that the right of the wife in taking charge and dictating the manner of burial of a husband is superior to that of his other relatives. There is no particular property in a corpse. Courts have merely held that certain persons by reason of their relationship are entitled to the burial of the dead body and in this they have considered the right of the wife superior to the next of kin.

◈

Law Against Caging Birds

O. S., Ohio, writes: "Is there a law against keeping ring-doves caged? I have one that I have had for five years. It was hatched in a cage. I never saw a wild one. I have always lived in the country, and it could not live if turned out."

The statute of Ohio provides that any turtle or mourning dove, sparrow, nuthatch, warbler, flicker, vireo, wren, American Robin, catbird, tanager, bobolink, blue jay, oriole, grosbeak or redbird, killdeer, swallow, bluebird, blackbird, meadow lark, bunting, starling, red-wing, purple martin, brown thrasher, American goldfinch, chewink or ground robin, pewee or phoebe bird, chickadee, flycatcher, gnatcatcher, mousehawk, whip-poor-will, snowbird, titmouse, gull, eagle, or buzzard, or any other wild bird other than a game bird, shall not be kept in possession of any one. There is a further provision that this should not apply to any bird which was in captivity prior to May 6, 1902, so I doubt very much whether you would be included.

◈

Widow's Right of Dower Estate

C. R., Kentucky, writes: "My husband died twenty-five years ago. The farm was divided equally among the heirs, my dower interest being 77 acres. I have paid taxes on it up to the present time. I am seventy-two years old, and what is raised on the place hardly keeps me. I wanted to make some repairs, covering the barn and house, by having some posts cut and two acres of timber cleared for tobacco. One of my stepsons went to the county seat and employed a lawyer, who sent the sheriff with a restraining order under a five-hundred-dollar bond to appear at court. Now what shall I do? Had he any right to do so? He allows no privilege whatever."

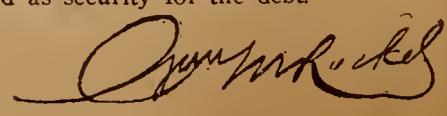
The law provides that no person owning a life estate shall commit any waste thereon; that is, they are not allowed to do such things as will permanently decrease the value of the estate. If there is a valuable piece of woodland, and it would not be to the interest of the estate to clear off the same, then the owner of the dower right would have no right to cut and sell any live and growing timber. However, the owner of the life estate would have a right to cut such timber as is necessary and proper to keep up fences and matters of that kind. Furthermore the owner of the dower estate is obliged to keep the buildings on the property in a reasonably good state of repair, and must also pay the taxes. So whether or not you had a right to do the things above specified would depend somewhat upon the condition of the property. I am rather of the opinion you would have no right to cut off the timber that you speak of.

◈

Payment of Debt

A. B., Ohio, inquires: "A mortgage was given May 29, 1896, when the mortgage note was taken up by the request of the deceased and destroyed, both parties being satisfied. A new note was given, a note of hand to run ten years. A year ago last January, the owner of the note and his wife both died within a few hours of each other. The lawyer for the administrator, I hear, intends to proceed with the old mortgage and the note of 1896 to prove a breach of contract, or use the same to force an ejectment. There is only one person that knows anything about the note or contract, and he is the man that gave the note. (1) Can they use the mortgage and note of 1896 to prove a breach of contract? If so, how? If they use it on that ground and get beat can they take the same note and sue it and get a judgment and still hold the mortgage? (3) They want to prove by the giver of the note that the last note went with the mortgage. They propose to start from the last note, instead of the date of the mortgage. Can they do it and make the mortgage hold legally?"

A rather difficult legal proposition is involved in the above query. If, when the note was taken up and destroyed it was considered that that was a payment of the debt, and that a new application was taken then my judgment would be that the mortgage was paid, and could not now be foreclosed for an action of ejectment contained thereon, but if the understanding between the parties was that the new note was merely the taking up of the old, putting the same debt in a different form and there was no understanding or contract, express or implied, that the old debt was paid, then I am rather of the opinion that the parties might still consider the debt as being unpaid and bring a procedure on the mortgage. Especially would this be true if the understanding between the parties was that the old mortgage was still to stand as security for the debt.



The Grange

Address of State Master Kegley of Washington

IN HIS annual address State Master Kegley reports that two granges have been reorganized and twenty-two organized, and that there has been a healthy increase in grange membership throughout the state.

Of taxation he says: "We permit the federal government to impose a tax on distilled spirits, thinking it is only whisky and beverages that are taxed. We now know that through this tax we have been giving a monopoly to the Standard Oil Co., who compelled the country to pay a tribute to it, robbed the farmers of an immense market for their produce, prevented the expansion of many important industries, forced workmen to use poisonous substitutes, and endangered the lives of all by making it profitable to substitute wood-alcohol for grain-alcohol in medicinal and food compounds. If the evils of what we have considered the least harmful of all taxes are so serious, what may we not suffer from other taxes with which we are burdened? Are not other monopolies fostered by other taxes? The tax-abolition road we have traveled in the case of alcohol must continue to be traveled if we are to be free from some of the giant monopolies that ruthlessly rob us. Do we need a tariff tax on iron, steel or any article the manufacturers sell abroad cheaper than at home? Taxation for revenue is necessary; taxation for protection may be desirable, but taxation that breeds special privilege and monopoly is abominable."

He recommends that instead of the present method of election of state grange officials through representatives, that they be voted on directly, and he suggests the following plan: Let each subordinate grange send to the state secretary on or before the first day of March of election years, the names of patrons they desire to occupy the respective offices. Within ten days thereafter the state secretary shall mail to each subordinate grange the names of all patrons so nominated. The subordinate grange shall vote by ballot, and the result, certified by master and secretary, shall be forwarded to the state master and state secretary on or before the 15th of May. The persons receiving the majority of votes cast shall be the only persons placed in nomination for such office at the state grange. Should no one receive a majority, then the three patrons receiving the highest number of votes shall be the candidates before the state grange.

◈

Direct Vote for State Grange Officals

State Master Kegley suggests direct voting for the election of officials of the state grange. Earnest workers in the grange have been pained at the time and energy consumed by a few who seemingly place office above service. It has happened in some state granges that officers have been elected who seldom enter their local granges. On the other hand, there are those who give loyal service to the order, make it worth while to have an official standing in it, and who have not the honor of official recognition.

"How did he (or she) get into office?" is too often the inquiry. "I never knew he did anything for the grange or had any connection with it or did anything for which he was not paid," is frequently said about such officials. It is a noteworthy fact that such oppose every new departure, withhold their support from those who are laboring for the good of humanity, and have hindered the best development.

Direct election may or may not solve the difficulty. It might result in the election of those who have rendered real service, and who are fitted to carry on the grange work in a larger way than ever before. The election of unknowns is not accidental. They serve their purpose. Is the purpose for the best interests of the grange? This question raised by State Master Kegley is a fruitful one for discussion in subordinate granges. Write what you think about it.

◈

Correspondence Course in Agriculture and Domestic Science

The second outline in the course of Agriculture and Domestic Science is now ready for distribution. This deals with crops and gardening. Three new circulars are also printed; one explaining the work in detail, and showing the possibility of acquiring good training at home, the second dealing with woman's work, and the third on economic questions. Other circulars will soon be issued. A great demand has sprung up for a bulletin on taxation. This will soon be forthcoming. The course is offered absolutely free to members of the grange. The books are purchased at wholesale prices.

No other organization ever offered its membership such an opportunity for education as has the grange, and as it is better understood there is greater eagerness concerning it. Especially is this so among the middle-aged and the young. There is a wide-spread feeling that there must be larger intelligence in producing and marketing farm produce, in homemaking, and all that pertains thereto, and the educational work is an answer to that feeling.

President Thompson, of the Ohio State University, Dean Price, of the College of Agriculture and Domestic Science, Ohio State University, Hon. F. A. Derthick, Master Ohio State Grange, and the editor of this department are members of this committee. Address all communications to the superintendent, Mary E. Lee, Westerville, Ohio. Information cheerfully sent upon inquiry. Bulletins now ready for distribution.

◈

Ohio State Fair

Secretary Calvert wears well the honor of conducting a most excellent state fair. There were many new entries this year, and the attendance was almost equal to that of last year, which was a record breaker. Knabenshue, the daring young aëreonaut, made daily flights with his airship to the delight of thousands. Courteous attendants looked after exhibits, explaining them to inquirers. The fair is an educational institution which enlarges and broadens the mind.

While all exhibits are educational in nature, those which may be termed exclusively so are the exhibits by experiment station, Ohio State Traveling Library, Ohio Teacher's Reading Circle, Ohio State University, Teacher's Improvement Federation, and Ohio State Grange Educational Work. These were all grouped close together, except the Ohio State University exhibit, which was in the dairy department. The people's interest in education was manifested by the thousands who stopped at the various departments.

Professor Selby, of the experiment station, had arranged a series of stationary microscopes along the front of his table, under which were placed seeds of the common grasses and weeds that are the worst adulterants, and a row of eager faces were constantly bent above them, and inquiries as to where such glasses could be obtained were numerous.

It was a magnificent fair, and the managers should feel a proud satisfaction in the outcome.

◈

National Grange

The next National Grange is to be held in Denver, Colorado. The city and the great West is making preparations for entertaining the organization, and every possible convenience will be provided for entertainment. Brother and Sister Newcomb will be royal hosts, and are sparing no pains to make the coming session a red-letter one in the history of the order. It has been determined to have an open session that the West may come in contact with the spirit and purposes of the grange.

Many Eastern people will avail themselves of the opportunity of visiting Denver and other points of interest, and attending the National Grange at the same time. The splendid history of the grange bespeaks for its future a yet more glorious work.

◈

Educational Exhibit Ohio State Grange

For the first time in its history the grange had an exhibit at the state fair. It attracted a great deal of attention from members and others who were eager to know more of the organization that is working with such splendid success for the good of humanity. Hundreds inquired into the free course of study offered by the grange in connection with the College of Agriculture and Domestic Science of the Ohio State University. Never before has an organization offered its membership the opportunity of taking a correspondence course in connection with a great state university.

Many signified their intention of going into the grange to secure this splendid opportunity. Others will work up granges in their own localities. The splendid work of State Master Derthick in the last legislature on taxation has aroused thoughtful people to the necessity of a strong, aggressive organization that will care for the interests of the farmers. They eagerly inquired if opportunity would be offered in the educational work to study questions of economic interest and taxation in particular. There was a very evident determination to investigate the entire question, and seek a just method for correcting abuses. One enthusiastic woman, who lived near a weak grange, exclaimed, "The grange near me is weak. I am going to ask to become a member and go to work in it. I realize that it is partly my fault that it is weak. I have not done my part, but I will in the future. There are many who believe in the grange, but we were discouraged because the grange near us was weak. We will all work together to make it strong. We need it in our neighborhood. We want to be identified with it."

This was the spirit displayed, and many sections have promised to organize new granges. There is no more fertile field than the state fair to work for the grange, if one is really interested in the success of the organization. The exhibit of the grange attracted wide-spread attention, both from city and country, and advertised its purposes and possibilities in a way to command the respect and commendation of all. Several ministers and members of civic societies, publicists and others interested in the betterment of humanity took notes, saying they desired to speak of the new departure in agriculture. Many sought to coöperate in the opportunity offered women, and asked for our outlines of study. The exhibit aroused and concentrated attention to the work the grange is doing.

◈

Governor Harris at the Grange Reunion

Governor Harris and members of the General Assembly visited Grange Hall Thursday. State Master Derthick introduced the governor, saying that the reunion had often been honored by governors but never before by a farmer governor. He paid a glowing tribute to the splendid service the governor rendered in the effort to have bonds placed on the tax duplicate of the state as taxable subjects, and briefly recalled the forces coöperating, the ex-attorney-general, present attorney-general, presidents of the universities and colleges, state librarian, commissioner of schools, agricultural press, ministers, publicists, etc. But the farmers of the state owed a debt of gratitude to the governor, who, as president of the senate, was ever a fair friend and ardent supporter of this just measure.

Governor Harris congratulated the grange on its splendid work, spoke of future victories to be won, and closed by congratulating the grange on having at its head a man of so much ability and character as Mr. Derthick.

◈

The Observatory

National Master Bachelder has visited many states during the season in behalf of the grange. Special work has been done in Minnesota and Iowa, and other states will be visited. Four special deputies are at work in the weaker states.

◈

Brookside Grange, Newburgh, New York, is in a thriving condition. It owns a fine two-story hall, has a membership of about one hundred and sixty, half of whom are regular attendants at the meetings. Its members take special interest in the educational work. Readings, speeches, debates and music entertain and instruct. The degree work is beautifully and impressively rendered. The officers commit the ritual to memory. Such a grange is a help to any community.

◈

State Master Fuller, of New York, is doing splendid work in insisting that grange speakers have something worth saying and the ability to say it before posing as leaders. State Master Derthick has made the same plea. Will the people uphold them by asking for none but worthy speakers? Conceit and bombast may carry a man a while, but the people who "pay the freight" are tired of it. Never was there so great an opportunity for men and women with a message as to-day.

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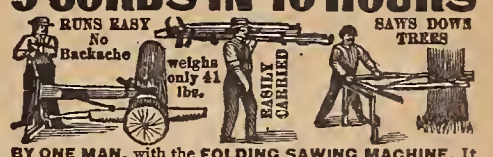

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The Making Over of the Howards

By Hope Daring

[CONTINUED FROM LAST ISSUE]

CHAPTER III.

IN A month's time the Hills were ready to leave the farm. It had not been a pleasant time for any of the inmates of the farmhouse, and all were glad when it was over.

Tom had been gruff and found fault with everything. The refusal of the sisters to become joint purchasers with him of the house he had selected in Lenox added to his displeasure. Mr. Hill was honest, and he settled with his sisters-in-law fairly. He was surprised to find that, when he had left on the farm the stock and tools that he was under contract to leave, he still owed the Howard sisters eight hundred dollars.

"Let that stand," Mary said. "Your note will satisfy us."

"If I am going to owe money I'll owe it to someone else. I can't forget all I've done for you. Ingratitude can go too far."

Hattie was not so resentful as her husband. She asked Mary to go to Lenox and help settle the family in the new house. The kind-hearted elder sister gladly consented to do it, but Tom interfered. He said he could hire the work done, adding that if there had always been a strict business basis beneath the affairs of the two families, things would not have become so muddled.

"You girls will see your mistake," he said again and again.

It required all of Elsie's firmness to keep Mary faithful to the stand they had taken. Miss Howard sat long hours at the sewing-machine, making the children's summer clothing. All three of the sisters insisted on Hattie taking far more than her share of the household furnishings that had been their mother's.

In the meantime Jerome Dare had not only taken possession of the land that had been a part of the Howard farm, but he had bought the farm that lay next to his first purchase. This had long been known as the "Ford place," and was the only house that could be seen from the Howard home.

"Just then a carriage came dashing up the drive, halting at the end of the porch"

"That professor don't know a blamed thing about farming," Tom Hill said one day at the dinner-table. "I've an idea that this part of the country will see some fool farming this year that it never saw before."

"Is this man going to live at the Ford place?" Mary asked, ignoring the implied insult of Tom's speech.

"He stays there now, and boards over to Jim Long's, a mile away. Jim says Dare has brought a wagon-load of books to his house—Dare's I mean—more books than furniture."

It was a warm May morning when Tom, Hattie and the children left the farmhouse. The children were very dear to their aunts, and all of the three women resolutely refused to let Tom's displeasure come between them and the little ones.

"We'll come back, of course we'll come back," little Howard said to Elsie as she kissed him and his sisters good-by before starting for school. "Yes, we'll come back, 'cause you see, Aunt Elsie, this is home."

"Yes, it is home to you, for you are a Howard, dear boy. You shall come back many, many times."

Notwithstanding her natural sorrow because of the departure of her sister and the children, Elsie went through the duties of that day with a light heart. Surely she had already overcome the most serious difficulty that would be found in the way of her renewing the family's happiness and usefulness.

"We used to be the leading family in the neighborhood and church affairs," Elsie said to herself as she walked homeward after dismissing school. "Now we—why, we are what the boys would call a 'back number.' Yet we are all in the prime of womanhood. We are going back to our old place, and also going forward to new things. Mary has not been to church a dozen times in a year, just because she has stayed at home to care for Hattie's children. Life has been the hardest on Mary. No, Alice has been still more shut in, and it is with Alice that the most difficult part of my work lies."

Elsie was walking slowly, her sailor hat in her hand. The heat of the day had been intense for the season. A bank of clouds was gathering low down in the western sky, and occasionally the sound of distant thunder came to Elsie's ears.

"Doctor Lawrence has doctored Alice all these years," Elsie thought. "In fact he has doctored all the Howards. Years ago he said that all that could be done for Alice was to make her comfortable. I believe she can be helped, especially if she can be roused to a new interest in life. I am going to persuade her to see that new doctor, Merdith, who is making so many friends in Lenox."

When Elsie reached home, there were only her two sisters there. The tea-table in the dining-room had been spread with great care, and Mary had placed in both sitting and dining rooms great bunches of the fragrant pale purple lilac blooms.

"Sit down and rest, Elsie," Mary said. "I am glad you reached home before the storm came. No, do not go upstairs to wash and brush your hair. We will use mother's room for that. Hattie has had it all these years, but I fitted it up to-day for us a little rest and dressing room. There is a cot there, so Alice can lie down when she pleases and be by herself."

"See what I have been doing," Alice exclaimed as Elsie reëntered the sitting-room. "Mary found my water colors, and I've worked over this and been happy for two hours. No, I am not tired, only hungry."

Elsie took the sheet of paper from her sister's hand. It was a study of a spray of lilac blossoms. Elsie nodded her head.

"It is yours, dear. The artistic gift that brightens and glorifies life."

"In a way, yes. If I was only strong and well."

Elsie looked up quickly. Mary was standing at a window, watching the fast-rising clouds which had already blotted out the sunlight.

"Alice, I believe you can get well. As a part of this new order of things that we are undertaking, let us make an effort for your recovery. This new doctor, Merdith, is being much talked of in Lenox, and I want you to see him."

Elsie had expected opposition from Alice, but it was Mary who said:

"But, Elsie, what of our old friend, Doctor Lawrence?"

"I believe Doctor Lawrence is really our friend. If so, he will be glad to see Alice restored to health. It will do no harm to try."

"We will try." Alice Howard's voice was low but firm. "Do not let us talk more about it now, but in a few days we will have this Doctor Merdith out here."

Both of Alice's sisters were surprised at the readiness with which her consent had been won. The change already brought about in the life of the farmhouse had roused in the invalid's breast a longing for a more normal existence.

"Mr. and Mrs. Maynard were here this afternoon, Elsie," Miss Howard said, prompted by a desire to comply with Alice's wish for a change in the subject of conversation. "Mr. Maynard approves of our plan to run the farm ourselves. He says he will give us any advice or help that he can. And Elsie?"

"What is it?"

"Mr. and Mrs. Maynard are so enthusiastic over the Farmers' Club. They want us to join."

Elsie's face flushed. "Were they making fun of us? We may be, in a way, farmers, but we are not men."

"Oh, this is for both men and women. The next meeting is at Mrs. Maynard's a week from next Saturday. I about the same as promised that we would all come, if Alice should be well enough to stand the ride."

A thoughtful look had come to Elsie's face. How was it that they had so completely dropped out of the neighborhood festivities which had once been so great a pleasure? Would not her proposed making-over be more far-reaching than she had at first thought. Would it not touch the lives of those outside of her own home circle?

"I don't know what I can wear," Mary Howard went on in a troubled tone. "Not but what I've clothes enough, but they all look as if they had come out of the ark. It don't matter, though; no one will look at an old woman like me."

Elsie turned her eyes upon her sister. Mary was erect, and her figure was well rounded. A faded pink flush still lingered upon her cheeks, she had clear, steady blue eyes, and an abundance of iron-gray hair. Her expression was kindly and sincere. She wore a dress of dark blue cambric which fitted her perfectly and was relieved by a white linen collar and a cardinal tie.

"Mary, you are just in life's prime. I believe your good days are still to come. As to the clothes, we will have Aunt Patience here next week to make us some summer shirt-waists and—"

She was interrupted by the entrance of Bert, who had been to Lenox. His hands were filled with letters and papers.

"There's going to be a hard storm," he announced, "and it's most here."

Elsie moved to the open door. The sky was covered with dark clouds which were almost constantly veined with lurid fire, and the roar of thunder was continuous and deafening. Just then a carriage came dashing up the drive, halting at the end of the porch.

In it were two men. Elsie had only time to recognize one of them as Jerome Dare, when the driver, a fine-looking elderly man, called to Bert who had hurried out on the porch:

"May we drive in the barn?"

"Sure. Jump out and let me take the team to the barn. It's the new minister," this last to the sisters.

Both gentlemen sprang from the carriage, and Bert took their place. He was just in time to reach the open doorway of the barn as the storm broke furiously.

In the meantime Elsie stood quite still, with her face half averted. She was the only one of the family who had ever spoken to Professor Dare, but she had no desire to welcome him to her home.

The elderly gentleman advanced, hat in hand, to meet Mary, who stepped forward.

"I am sure these are the Misses Howard. I am Alvin Reed, your new pastor. Having reached my charge two days ago, I am making a round of pastoral calls, preparatory to preaching on next Sunday."

He shook Mary and Elsie warmly by the hand. Mary led the way within and presented the minister to Alice. Then Mr. Reed said:

"I see you are not acquainted with my companion, although you are neighbors. I overtook him on the highway and asked him to ride. Professor Dare, ladies."

Mary set the bad example of offering Professor Dare her hand, and there was nothing for her sisters to do but to do the same. Jerome greeted Elsie with perfect composure, not giving any hint that he had before addressed her. Turning to Mary, he said:

"I was on my way here when Mr. Reed kindly asked me to ride. As you may know, I am your nearest neighbor on the south. A general breaking down of my health has made it necessary for me to live outdoors this summer, and I am staying alone at my new residence. My errand here was to ask if you would take me as a boarder, allowing me to come here for my meals."

CHAPTER IV.

It was in vain that Elsie tried to catch the eye of Mary. The senior Miss Howard looked musingly into the face of the applicant for her hospitality a moment before she said:

"I hardly know what reply to make, Professor Dare. Indeed I think you must give me a little time to talk the matter over with my sisters. We are in a somewhat unsettled state just now, our married sister and her family having left the farm only this morning."

Jerome Dare made a polite bow. "Take the time certainly. Shall I call to-morrow evening to learn your decision? I would try to be very little trouble, and I would be willing to pay whatever you ask."

While this conversation had been going on, Alice had talked with the Reverend Reed. Elsie looked out of the open door to where the rain fell, the seeming slanting lines shutting off the view of the near-by objects. The lightning had ceased, and the reverbations of the thunder were less frequent and further away.

"He shall not come here, the conceited prig!" Elsie raged to herself. "He seems to think that he can have whatever he wants, but this time he will find out that he is mistaken. My plans for making over people do not include a college professor."

Even as that thought passed through her mind she started. Would those plans of hers have ever shaped themselves in her brain, would the opportunity for them ever have come to her, had not this stranger come to the neighborhood?

Mary turned a beaming face to her two callers. Hospitality had once been the unwritten but gladly practised law of that household. Tom had not liked company, and Hattie's fretfulness and untidiness had made it easy for the sisters to give up entertaining their friends. That evening, for the first time in years, Mary felt herself mistress of the house.

"The rain came opportunely; it will give us the pleasure of your company for tea. Nay, we can accept no excuses. Elsie, if you will assist me just a few minutes."

The two hastened away, leaving Alice to entertain the callers. In the kitchen Mary bustled about, keeping up a running fire of talk.

"Yes, we will make coffee. I am glad I set the table prettily, with Grandmother Howard's rosebud china, in honor of our first meal alone. I made bread to-day, and my rolls are fine, if I do say it. Bring up a can of peach preserves and a cup of quince jelly, Elsie. Do you not think Professor Dare very gentlemanly? Be sure you get the best napkins."

"But, Mary, we will not take him to board, remember that," Elsie said as she

"Interest in the sketch seemed as great as was his interest in the patient"

emerged, flushed and breathless, from the cellar.

"I am sure he would not be much trouble, but some people might think it was not proper."

The meal was soon ready. The guests did ample justice to the tempting viands.

Jerome Dare was an observing man. All his life he had been accustomed to the ease and refinement of luxurious living, and his present boarding-place was most distasteful to him.

As he looked round the large room, with its simple, tasteful furniture and flower-filled windows, outside of which the rain was then falling gently, a sense of peace stole into his heart. This was a genuine home.

"I believe I have found the haven of rest," he thought, as Miss Howard refilled his cup with the fragrant coffee. "Even the scent of the lilacs is harmonious; that is the fitting flower for these gracious, old-time elder sisters. As to the teacher she is more like a wild-rose, piquant, pretty, but thorny."

The meal was nearly over when Mr. Reed said:

"I am not sure but I am obtaining this charming hospitality under false pretense. While I am making a round of pastoral calls, I have a little matter of business about which I wish to consult you ladies. I find everything ready for me to hold my first service on Sunday morning, except an organist. Mrs. Bell, the lady who formerly officiated in that capacity, has moved away. I have made two other calls searching for an organist. In one case I found the lady ill. In the other she was absent from home. Chancing to mention my difficulty to Mrs. Maynard, on whom I called since dinner, she told me she was sure that one of the Misses Howard would play the organ for Sunday morning."

Mary looked blankly at the speaker. It took Elsie but a moment to adjust herself to the new idea, and she said in a matter-of-fact tone:

"Mary is somewhat out of practise, but I am sure she will be happy to oblige you."

"Me? Oh Elsie! Why I have not played in public for years, although I was the church organist for a long time. To be sure I have never entirely given up my practise, for I love music too well to ever do that, but I could not—"

"If you do your best, Mr. Reed can ask for no more," and Elsie's smile gave the elder sister a sudden and delightful sense of power. "If Mr. Reed will select the hymns for the service before he goes, Mary, it will make it easier for you, as you will have a couple of days for practise."

"I will be only too glad to do that. We will not try to have any choir at first. Miss Howard, I wonder if you can realize what your hospitality and your readiness to help on my work mean to me—the stranger within your gates."

Mary Howard drew a long breath. How had she been led to consent to play in public? It was Elsie who was responsible for the rash promise.

The sisters and their guests lingered long over the table. Ere they rose, the rain was over, the clouds had parted, and the western sky was aglow with a soft crimson and amber light.

At last the guests rode away. Alice would not lie down, but ensconced in a cushioned rocker in the dining-room, shared the animated discussion that went on while Mary and Elsie cleared away the supper and washed the dishes.

"I fear it is foolish in me to attempt to go back to my music," Mary said. "But then it is only for a little while, just until Mr. Reed can find someone else. Now about Mr. Dare's coming here to board?"

"He cannot come." Elsie spoke decidedly and added no explanation of her simple statement.

"You think it would not be just the thing, with no one here but us three women," Mary said slowly, imputing to her sister the thought that had been in her own mind. Perhaps you are right, Elsie, but I feel old enough to mother even this learned professor a little. He is a fine man."

"It would be horrid to have him here," and Elsie frowned. "Besides curtailing our freedom in many ways, I am sure his presence would annoy Alice."

Miss Howard sighed. "Well, perhaps we had better not take him. Somehow I feel under obligations to him; if he had not bought that land, we would not now be rid of Tom. Don't misunderstand me, girls. I love Hattie as well as I love either of you, but I am sure we will be happier and better women if we live by ourselves."

Elsie was conscious of a feeling of dismay. This was not her view of Professor Dare's presence in that community. Who was right, Mary or herself?

"I am sure we are under no obligations to Professor Dare," she thought. "Mary does not understand how I feel about my first meeting with him. His presence rouses a sense of antagonism in my nature. It does not matter, though, for we will see little of him."

"I liked the new minister," Mary Howard volunteered as she sorted the family silver. "Did either of you hear him say anything about his family?"

Alice nodded. "While you were getting supper, he told me that he had two sons; one away at college and the other a lad of fifteen who will attend the Lenox high-school."

"We must have him and his wife out here to spend the day soon," Mary said briskly. "Girls, how far away from our parents' old rule of hospitality we have drifted."

"*Had,*" Elsie corrected with one of her sunny smiles. "We are returning, dear. The Howards are awake and ready to take their place in the world."

When Jerome Dare called the next evening it was Mary who received him. Elsie had driven to Lenox after school. Her ostensible errand was the mail, but she intended to call upon Doctor Merdith and appoint a time for him to visit Alice.

Jerome Dare listened in silence to Mary's somewhat confused reasons for refusing to admit him to her home as a boarder. He saw her good-will and smiled pleasantly.

"Do not make any apology, Miss Howard. I see that it will be more agreeable for you and your sisters to be alone, especially as Miss Alice's health is not good. However, we are neighbors, and I trust we may be friends."

"Indeed we will be. Come up and see us often. I heard you tell Mr. Reed that you prepared some of your own meals. If there is anything we can do for you, like baking, we will be most glad to do it."

"Thank you, Miss Howard. I am not sure but my greatest need is practical common-sense advice about farming. I am not quite so ignorant as to transplant the beans because they grow wrong side up, but my hired man thinks my ignorance of the rotation of crops is disgraceful."

Mary Howard laughed merrily. Then she asked:

"Is your farming anything more than amusement, Professor Dare?"

"In one way it is carrying out a long-cherished wish. I loved my profession. Indeed I feel that teaching is my real work, but I have always longed to assist at the greatest of nature's miracles—growth. When the doctors said that, for a time, I must leave the class-room and live outdoors, I straightway realized one of my dearest dreams—I became owner of a farm. Miss Howard, I want to succeed in this new undertaking; a failure is a thing I do not like to contemplate."

He lingered for an hour, chatting with his hostess. Mary's good opinion of him grew during all that time.

On reaching Lenox Elsie went at once to the office of Doctor Merdith. It was the first time that she had met the physician, and his vigorous dark face and mellow voice gave her a sense of confidence in him.

She stated her errand plainly. Alice had been an invalid for many years. Doctor Lawrence had said she suffered from "stomach and nerve trouble." Of late she had seemed stronger, and Elsie thought a renewed interest in life had something to do with it.

"I believe she can be helped, Doctor Merdith. Will you drive out to Howard Farm and give her case your careful attention?"

"I will. Your account of it interests me. While I am not a devotee of Christian science I know that many times people fail to rouse themselves from the long lassitude that follows a severe illness, just because they lack an absorbing interest in life. They do not 'get well' as the saying is, because they make no effort to do so."

Her errands completed she started on her homeward drive. The interview with the physician had given her new strength.

"With Alice restored to health and Mary roused from her morbid depths of self-sacrifice, my work of making over the Howards will be done. No, there will be myself. I wish—Oh dear!" and Elsie broke off abruptly, unable to voice the strange new desires she felt rising in her heart.

CHAPTER V.

The week following Elsie's call upon Doctor Merdith was a busy one for the Howard sisters. Its duties began on Sunday morning when Mary and Elsie drove to the little country church where generations of Howards had worshiped.

Alice insisted that no one should remain at home with her. It took the efforts of both Alice and Elsie to help the elder sister settle the details of her toilet.

"I declare I did not know that my wardrobe was quite so hopelessly antiquated," Mary exclaimed as she tossed aside a dark blue silk waist that had been made three years before, and had been worn only a few times. "I am glad that Aunt Patience is coming soon. You are sure, Elsie, that the black brilliantine is all right?"

The little church was crowded. Mr. Reed's face lighted up at the sight of Mary, and his confident gesture gave her sudden strength. She walked over near the organ and sat down, removing her gloves.

Elsie was surprised to find herself nervous. She knew her sister's ability, but had not the many years of self-effacement robbed Mary of the serene dignity that had once been hers?

Ah, music's magic power! Mary Howard's fingers pressed the keys with which she had once been so familiar. When the good old hymn, "Coronation," rang through the church, the organist's self and her timidity were forgotten.

Her playing was a delight to the worshipers. At the close of the services many old friends crowded round Mary, expressing their pleasure.

"You must keep it up, Mary," Mrs. Maynard said. "We will not let you go again, you may depend upon that."

Mr. Reed voiced his satisfaction. As he preached at another church Sunday evening, Mary's services would be needed only once each Sabbath.

"You select whatever hymns you prefer for next Sunday, Miss Howard," the pastor said. "After that I will acquaint you with my subject, or we will select them together. In a few weeks we will try and arrange for a choir. Now, Miss Howard, I want you to meet my sister who is my housekeeper. Miss Howard, Mrs. Morgan. Miss Howard, this is my son Willard."

Mary was nonplussed. She had supposed the sweet-faced little woman was the pastor's wife. The two women chatted a moment, and Mary gave the stranger a cordial invitation to visit the farm.

The two sisters talked little as they rode home. Elsie studied Mary's face.

"She will soon be younger than I, at this rate," was Elsie's unspoken verdict. "I am not sure but my made-over articles are going to be improvements upon their first condition, unless it is myself. Somehow the plans that are doing so much for my sisters do not seem to touch my case."

The next afternoon Doctor Merdith visited the farmhouse. His coming was expected. He found the two elder sisters in the sitting-room, in company with Aunt Patience, a distant relative of the Howards, who did dressmaking. Mary was sewing, and Alice's hands were busy with a sketch of an old spruce which stood on the lawn within range of the sitting-room windows.

The physician's interest in the sketch seemed as great as was his interest in his patient. To be sure he looked at Alice's tongue, felt her pulse, and questioned her about her eating and sleeping. When that was done he took a handful of cards from his pocket.

"There are a great many picturesque bits of landscape to be found hereabouts, more perhaps than you people who have always lived here appreciate. In my country drives I carry my kodak as much as I do my medicine-case. Do you ladies recognize any of these?"

"Oh, there is the bridge at the Miller Farm!" Alice exclaimed. "What an artistic picture it is, with that great elm in the foreground!"

"And there is the church," Mary said. "That is, Doctor Merdith, is it not another view of the creek?"

"Yes, taken nearer town. Do you recognize this, Miss Howard?" and the doctor handed Alice another picture.

"No. Why, it—it is a corner of our orchard."

"It is. If this old home were mine I should make a collection of views from its fields, orchard and buildings. The camera is an educator as well as an artistic delight."

"But the camera is not art, as is the pencil or brush," Alice said, a faint pink flush coming into her cheek.

"Nay, it is art's highest form—an artistic reproduction of real life. The creative power has not been given with any degree of fulness to many who have a sincere craving for artistic expression. To those persons a well-handled camera is a boon, one that brings pleasure to others. A pencil or brush is too often but a medium for poor work."

Alice looked intently into Doctor Merdith's face. The idea he expressed was new to her, and she was not pleased with it. Did he mean covertly to judge her work. The doctor continued to talk of his pictures for some time. Then he prepared some medicine, saying:

"This is a tonic. The sunlight and the open air will do much to induce an appetite and restful sleep. Keep your mind occupied, Miss Howard. When you think of yourself, think that you are going to get well, but do not indulge even in that too much."

"What shall she eat?" Mary asked.

"Anything that common sense and her appetite suggest to her. The first will debar a meal of roast pork, mince pie and pickles just before retiring. Fruit, vegetables, milk, cream, eggs—those things should have an important place in her dietary, and let her drink plenty of pure water. I will see her again in a week," and Doctor Merdith bowed himself out.

[TO BE CONTINUED NEXT ISSUE]

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Pocahontas—A Historical Novel in Brief

IN THE temples of the Virginia forests the mighty Indian king, Powhatan, sat on his throne meting out his kind of justice to several palefaces he had met on the war-path. His bronze skin glinted and gleamed beneath the barbaric decorations of beads and feathers and fur which adorned his magnificent person in bewildering bedazzlement. Surely if the poet had seen this Charlemagne in copper he never would have written, "Lo, the poor Indian."

At the foot of the throne, in her own little chair of state, sat his beautiful daughter, Pocahontas. She was her father's pride and the hope of her people, the dusty denizens of a dubious domain.

As the king passed sentence upon the helpless prisoners before him Pocahontas looked away to hide her tears, and as they were removed from the presence of the throne she pressed her hands over her throbbing heart and gazed appealingly up to her father. But Powhatan, stern in his sense of right as he saw the right, gave no heed to womanly feelings, and his daughter's silent suppliance met no response in mercy.

The common herd being disposed of, the case of Captain John Smith was called, and the prisoner appeared before the throne. Haughty, imperious, full of the insular insolence not yet obsolete among Englishmen, he stood fearlessly in the presence of Powhatan.

"So," said the king, "you are the pale-face chief?"

"I am, Your Majesty," responded Smith trained in the customs of the court, and remembering that a king was a king in whatever soil his throne might be planted.

"And you have come with irons that thunder from the land beyond the great water to take mine away from me who have never done you harm?" said Powhatan, suppressing his rising rage but illy.

"That's about the size of it, Majesty," admitted the captain, smiling at the excellent guess the untutored savage had made.

"You are guilty, then, on your own confession," said the king.

"From your point of view, Majesty, I presume I am," Captain Smith admitted, with a polite bow.

Powhatan suppressed a desire to argue the question, and proceeded with the business of the court.

"Have you anything to say why sentence of death should not be pronounced upon you?" he asked.

"Well, yes, Your Majesty," replied the captain, scratching his head as if perplexed, "I have a good deal to say; but as you don't understand English, and I don't speak Indian, and you seem to be shy on interpreters, I don't see any good in saying it. Proceed with your rat-killing, Majesty," and Captain Smith made a sweeping obeisance.

"Um-er," hesitated Powhatan, "I hadn't thought of that. However, I perceive that your point is well taken, and I will proceed as you suggest."

The king arose, and clutching his great war-club in his hand with a firmer grip advanced toward the intrepid captain. Four lictors seized the Englishman and held his head down on a convenient saw-log. The king approached, and drew back his club to strike the fatal blow. It was a moment of intensest interest to all. The silence of the sleeping forest grew denser; the leaves on the trees quavered a moment and were at rest; the birds among the branches held their piping breaths; all nature seemed to be suspended, intent upon the tragedy about to be enacted in her midst; the king braced himself for the effort of his life, and twirled his club for the blow. Suddenly Pocahontas threw herself between her dear father and the victim of his wrath.

"Stay, father; stay your hand!" she cried, clasping his club in her shapely, sinuous arms.

"What mean you, girl?" he shouted, trying to break away.

"Don't do it, father; please don't! Put up your club," she pleaded, in passionate earnestness; "you do so remind me of an ordinary policeman!"

Over the face of the dusky Chief
A blush of shame was spread,
And Captain Smith was spared that day
A looked-for broken head.

WILLIAM J. LAMPTON.

Around the Fireside

"Grunting 'Round"

WHEN Farmer Knightly stopped at my gate on his way to the village the other day, and I asked him how his wife was, he said in reply to my question:

"Well, she's grunting 'round same as usual. When I left home she'd about come to the conclusion that she was coming down with a fever of some sort."

"How is her mother?" I asked.

"Well, she's grunting 'round, too, although I don't know that I ever see her look so well as she does now. Fact is, I never saw her lay in bed a day or miss a meal since she come to live with us, twenty years ago, but there ain't been a day of that time that she hasn't grunted 'round some."

"The children all well?"

"Fair to middlin'. Sally has been grunting 'round and Tom thinks he is going to have another spell of sore throat like he had three years ago, and that come so near ending in diphtheria."

Now could anything be more depressing than to live in the atmosphere created by those who are forever "grunting 'round?" When I meet such people I feel like commending to them as a daily potion these lines written by Ella Wheeler Wilcox:

Talk Health. The dreary never-ending tale
Of mortal maladies is worn and stale.
You cannot charm, or interest, or please
By harping on that minor chord, disease.
Say you are well, or all is well with you,
And God shall hear your words and make them true.

There are people in the world who never tire of "The dreary never-ending tale of mortal maladies"—their own maladies, most of which are purely imaginary. A person of this kind is the worst sort of a wet blanket in the home. They are almost sure to speak in a tone of utter dejection, and they seem to resent any implication that they look well or seem well in their habits. The writer knows of a woman who has never missed a meal in her life that anyone knows of, and who never was known to lie in bed a day, or to fail to go any place she wanted to go, and yet she is a shining light of the "grunting 'round" fraternity. She wishes it understood that she has "never known a well day," and that "nobody knows what she suffers." If her friends do not know "what she suffers" it has not been because of lack of information on the subject, for she has harped steadily "on that minor chord, disease," the greater part of her life.

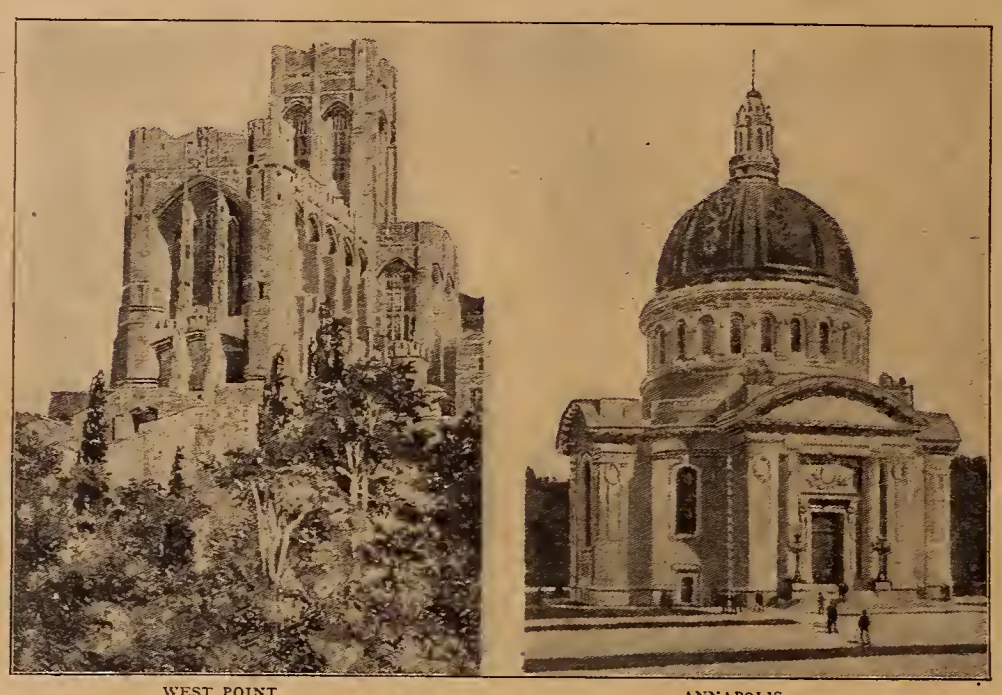
Less pronounced cases of people afflicted with the "grunting 'round" malady are very common—too common for the general happiness of the world. How much the happiness of the world would be increased if we would but follow the advice given by Mrs. Wilcox and "Talk Happiness" instead of health.

Talk Happiness. The world is sad enough
Without your woes. No path is wholly rough.
Look for the places that are smooth and clear,
And talk of them to rest the weary ear
Of earth, so hurt by the one continuous strain
Of human discontent and grief and pain.

Yes, let's "talk happiness" more and health less, and thereby increase very largely the sum of human happiness in the world. Many of the so-called faith-cures and mind-cures and mental healings of the world are simply the result of people being led to forget their imaginary diseases and to think and talk of other and better things.

Many of the real sufferers of the world bear silently and bravely sufferings far greater than have ever been felt by many of the "grunting 'round" class. The chronic "grunter" should be a sorry object for his or her own contemplation, and a person of this kind is always a shrieking note of discord in many an otherwise harmonious family circle. I am quite in harmony with a cheery and quaint old lady I met the other day, who said of one of the "grunting 'round" unhappy ones:

"Dear, dear! what an uncomfortable sort of a bein' one of these grunters is! Most uncomfortable kind of a specimen I know of. Seems to me they kind o' lower the moral tone of a home. Anyhow, they are dreadfully uncomfortable to live with."



WEST POINT ANNAPOLIS

THE NEW CHAPEL AT THE UNITED STATES MILITARY ACADEMY AT WEST POINT, AND DESIGN FOR MEMORIAL CHAPEL TO BE ERECTED AT NAVAL ACADEMY AT ANNAPOLIS

She was right. The person who is forever "grunting 'round" is "an uncomfortable sort of a bein'," and one who contributes nothing to the happiness of the world.

J. L. HARBOUR.

◈

Women to the Rescue

WOMEN farmers. largely have saved the day for the Western agricultural world this year in actual work in the fields. The scarcity of farm help has forced the skirted workers to appear in droves in the harvest-fields of Illinois and Wisconsin. Looking from the car windows of the roads that run through the rich prairie fields one has been able to find women at work almost on every farm, In some instances the women have done absolutely all of the work of every description.

One woman, whose little farm in Lake County, Illinois, is surrounded by the costly lands of wealthy fad farmers, of near Chicago places, does all of the work of her farm. Dressed in a gingham skirt that reaches the tops of a pair of high-laced coarse shoes, and with her head in a sunbonnet, she plowed the land for five acres of oats, five of corn and a ten-acre fruit and garden patch. She did all of her own cultivating, cut fifteen acres of timothy with a mowing-machine, raked it, loaded it and hauled it to her barn. She cares for and milks eleven head of cows, and takes care of a variety of poultry. She lives alone, and attends to all her own house-work. She rises at five o'clock, works all day, rain or shine, reads her papers after supper, and retires at nine o'clock. She is now fifty-five years old, but doesn't look to be a day over two score. She is probably the happiest and most contented woman in Lake County.

If it is nearer and quicker for this active woman farmer to reach an object by climbing a woven-wire fence than to go to a gate, she scales the fence quicker than one is able to write it. That is the way she reaches her rural free delivery mail-box every week-day morning. The box is located just outside of a towering fence, she takes one step on a plank placed low, and then over she goes, and that is the way she gets back into her farmyard.

The name of this woman is Miss Elizabeth Condell. Her father, William Condell, left her eighty acres of land. She sold fifteen to the Chicago and Milwaukee Electric Railway, the line of which runs through her farm. For twenty years she has been her own farmer. She is able to give lessons to many. For some years she has paid special attention to breeding good farm horses, and some of the very best farm animals came from her little sixty-five-acre farm.

Fashionably dressed ladies and gentlemen in vehicles behind costly horse-flesh, and seated in high-priced automobiles, pass the humble home of this modest woman farmer every hour of the day. They come from the princely places of Chicago's wealthiest set, and whose farms all but touch hers, but she is always too busy to see them. It is safe to say that few of the passengers in the costly cavalcades are as happy and contented as this woman farmer, and it has been the work of thousands of such nervy and muscular women that rich crops this year have been saved.

J. L. GRAFF.

MISS CONDELL'S FARM HOME—BEHIND HER FAVORITE TEAM—FENCE WHICH MISS CONDELL LEAPS EVERY DAY TO REACH HER RURAL FREE DELIVERY MAIL-BOX

◈

Autos of the Old Days

THE horseless carriage first took tangible form in the seventeenth century. It was then that there came to human intelligence the realization of the dream of unrestricted, individual locomotion.

Johann Haustache, of Nuremberg, contrived a vehicle propelled by a huge coiled spring, the action being on the principle of clockwork. He made 2,000 paces an hour. The spring was controlled by a lever, and in the absence of steering device, the machine could only be propelled in a straight line.

The utilization of the winds of heaven in the windmills of Holland about this time suggested the idea of "sail wagons," which were used to some extent on the flat plains of that country. These curious wagons consisted of the rigging of a ship attached to wheeled platforms.

In 1644, a patent of Louis XIV, granted to "Jean Theson the privilege of employing a little four-wheel carriage set in motion without any horses, but merely by two men seated." The supposition, in the absence of detailed drawings, is that the "men seated" propelled the vehicle by strenuous leg work.

In 1769 Nicholas Joseph Cugnot, with state funds placed at his disposal by the Duc de Choiseul, constructed a steam gun-carriage, and the following year he produced an improved auto which is still preserved in Paris. The machine had but three wheels, the boiler overhanging in front on the theory that its weight would be counteracted by the load on the carriage. The engine was directly behind the boiler and consisted of two thirteen-inch single-acting cylinders. The movement of the piston was transmitted to the axle of the driving-wheel by two ratchet wheels. The engine could be reversed at will. There was a steering gear, and the vehicle proved its capacity for carrying a load of two and one half tons at a speed of three miles an hour. Napoleon Boneparte caused the appointment of a commission of the institute to investigate the invention, but the revolution suddenly put an effectual check on the further development of the automobile. It is interesting to note that in the matter of the production of a practical automobile France led the world in the eighteenth century, just as she now leads the world in the building of special racing machines of tremendous power.

The first American inventors to tackle the steam-propelled vehicle problem were Oliver Evans, of Maryland, in 1787, and Nathaniel Read, of Massachusetts, in 1790.

Richard Trevithick, of England, in 1802, patented a steam carriage that was a distinct advance over previous efforts.

By this time it came to be believed that ordinary wheels were insufficient to secure traction, and mechanical legs were devised as propellers. The Gordon machine, patented in 1824, was a six-legged affair, the pedals being operated by steam. Goldworthy Durney about the same time produced a steam carriage which used legs as auxiliaries.

The more recent development of the automobile is better known. In 1886 Charles E. Duryea conceived the notion of propelling a carriage with a gasoline engine, and two years later partially produced a light buggy driven by a two-horse-power engine. His first complete vehicle was brought out in 1892.

The automobile built by Elwood Haynes in 1893, was sent from Kokomo, Indiana, to Washington, where it was installed as an exhibit in the Smithsonian Institution. It is a four-horse-power machine, capable of a speed of twelve miles an hour on good roads.

The growth of the automobile industry in the United States and in the world has been nothing short of marvelous. About ten years ago the first machine was put upon the market, then quite crude and uncertain. To-day it has developed into a truly wonderful and beautiful machine, capable of great speed and endurance.

From year to year the speed tests of the racing machines show new records. At Ormond, Florida, last spring a run of 283 miles was made in 276 minutes, being more than a mile a minute for nearly five hours. "And the end is not yet."

George D. Prentice

A BRILLIANT KENTUCKY JOURNALIST

GEORGE DENISON PRENTICE, a native of Connecticut, was a genius, wit, poet and journalist. A ready reader of books when only four years old, he was familiar with Homer and Virgil at the age of fifteen. At Brown University he distinguished himself as a writer of prose and verse, some of his best-known poetry having been written before he graduated from that institution. The practise of law, which he attempted at the close of his university career, was distasteful to him, and he soon abandoned it, the courtroom, musty records and details of litigation being uncongenial to his poetic temperament.

For a time he was editor of the Connecticut "Mirror," and later was associated with the poet, Whittier, in the publication of the "New England Weekly Review." In 1830 he came to Kentucky to write a "Biography of Henry Clay," a work which he wrote in the home of his idealized statesman, the "Sage of Ashland."

GEORGE D. PRENTICE

When Prentice came to Kentucky a furious political warfare was being waged between the Whigs and the Democrats. Ten days after he had completed his "Biography of Henry Clay," the Whigs invited him to Louisville to measure his lance with that of a mighty adversary—Shadrach Penn, editor of the "Public Advertiser," champion of the Democracy, and undisputed master in the Kentucky field of journalism, especially in politics. Fond of controversy, Penn had vanquished the ablest editors who had dared to enter the lists against him, among them being the formidable Amos Kendall.

When Prentice issued the first number of the Louisville "Daily Journal," November 24, 1830, it created an immense sensation, convincing Whigs and Democrats that in the "new Richmond in the field" Penn was "up against" a foeman worthy of his steel. Prentice introduced a new style of journalism peculiarly his own, his editorials being short paragraphs distinguished for their wit and humor, sarcasm and satire. Another writer said: "Prentice perhaps wrote more, and certainly wrote better, than any other journalist that ever conducted a daily paper in this state. He made the 'Journal' one of the most renowned papers in the land, and many articles from his pen would have done honor to the highest literary periodical of the day. Under his guidance the 'Journal' made and unmade the poets, essayists and journalists who appeared in the West for the third of a century which preceded his death. His wit, his humor, and his satire were the best friends and the worst enemies that aspirants to fame in his region could have. As an author and poet Mr. Prentice had few equals, but he was a journalist of preeminent ability and versatility."

From the first, everybody, Whigs and Democrats, read the "Journal." The Democrats, if not subscribers, were borrowers, and if they would not read for themselves, their Whig neighbors would read aloud for their delectation. In truth, Prentice made things lively in old Kentucky. He made every Kentuckian laugh at Shad Penn, who for eleven years, however, ably and bravely withstood the terrible weapons of his relentless adversary. Although fond of controversy, his sensitiveness was such that the torture inflicted by his foe's sallies of wit and ridicule drove him from the field. He went to St. Louis, where he established "The Reporter," a journal that became a power in Missouri politics. When he left Louisville Prentice wrote of him kindly, saying he was an able and sincere man, and that his removal was a public calamity.

Personally Penn and Prentice were close friends, both men being of like social and convivial temperament. Of their social relations many amusing stories are still current in Louisville and throughout Kentucky. People outside of Louisville, reading the "Journal" and the "Advertiser," were constantly expecting to hear of a tragedy—of a deadly combat between the two editors. The citizens of Louisville, however, who knew the habits and close personal friendship of the men, expected nothing of the kind. The great political adversaries clinked their glasses socially and then separated to fight a terrific battle in their journals, the warfare creating a phenomenal demand for both.

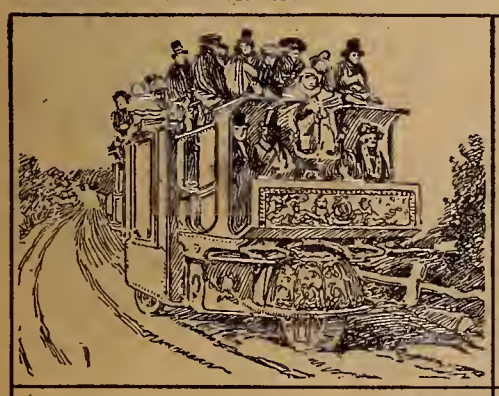
Here in the borderland, where civil war stirred the fiercest passions and many a house was divided against itself, no man wielded a more potent influence for the Union than George D. Prentice. Indeed, his pen was mightier than the sword in preventing Kentucky from uniting her destiny with that of the Confederate States. He was a Gamaliel at whose feet sat generals and statesmen, and the common people heard him gladly; his editorial paragraphs in the widely circulated "Journal" inciting many a gallant son of the "dark and bloody ground" to march to the music of the Union. To his sorrow, however, the home of Prentice, like others, was divided. His two sons, gallant and brilliant, ignoring his teaching, followed the Confederate banner, one of them, a youthful officer, being killed in battle while following the plume of the cavalry chieftain, John H. Morgan.

While unceasingly and relentlessly using his mighty pen against the South, Prentice was a generous foe, performing many deeds of kindness for individual Confederate sufferers, a number of whom had been his neighbors and associates. He died January 21, 1870, when sixty-seven years old. Thus, in the language of his immortal poem,

Time, Time, the tomb-builder, holds his fierce career,
Dark, stern and pitiless, and pauses not amid the
Mighty wrecks that strew his path, to sit and
Muse, like other conquerors, upon the fearful
Ruin he has wrought.

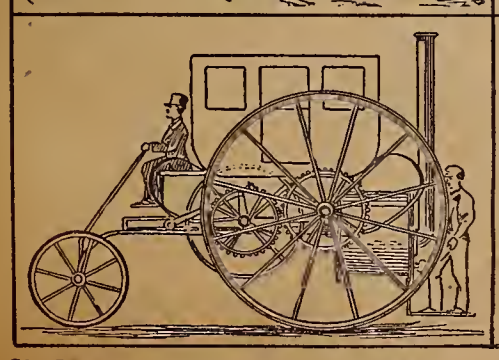
—GEORGE DALLAS MOSGROVE.

"SEEING LONDON" IN 1831

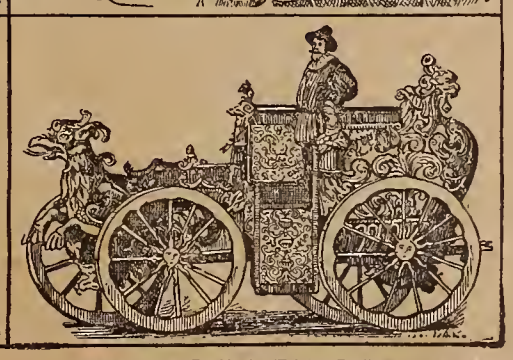


DUTCH SAIL WAGONS. 17TH CENTURY

CLOCKWORK CHARIOT OF 17TH CENTURY



TREVITHICK'S STEAM-CARRIAGE, 1802



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The Housewife

The Habit of Staying at Home

BY HILDA RICHMOND

Just why some faults and failings of the human family should be permitted to pose as virtues no one has ever been able to find out, but when they do, there is no getting rid of them. To be economical is one of the greatest and most necessary virtues, but when it descends to stinginess, and still calls itself economy, there is slight hope that the victim will ever see the error of his ways. There are men who say they must drink intoxicants to ward off consumption, and so it goes through a long list of vices that pass with some misguided people as virtues.

Among these pernicious habits is that of staying at home instead of mingling with the members of the community. There are women who actually boast that they have not been to town for months, and have no desire to go, but why they should feel proud of this custom no one knows. They will speak with contempt of the neighbors who "gad about," never thinking or caring that they themselves are objects of pity instead of model housekeepers and home-makers. Almost every country neighborhood has two or three women whom no one expects to go visiting, to help with church and social life, or to take part in the little doings of the place. They are apart from the ordinary housekeepers, and enjoy the distinction of being different.

Not long ago a woman died who had not been away from home for years, except occasionally to funerals. She was a soured, morose individual, with few people to follow her to the grave, simply because she always held herself aloof from her neighbors. When she could work she boasted that no one ever caught her neglecting her duties, and after the days came when she simply sat about waiting for the end, she had no friends to cheer her. She was not so old when she died, and many a neighbor who lived a normal life survives her still, happy and useful. She made an idol of remaining at home, and her worship of it was complete.

Like most other habits, the custom of staying at home comes on gradually. Sometimes the young wife and mother thinks she will be very saving and thrifty, so she neglects her wardrobe, and when there is an occasion for leaving home she has nothing to wear. It is never economy to do without things one needs, but some ladies find this out too late in life to do any good. In these days of ready-made suits and shirt-waists it is possible for any woman to appear neatly dressed on all occasions at small cost. One lady in the country wore a ready-made skirt three years without looking at all conspicuous, and always was trim and neat, simply because the skirt was of good quality, short enough to escape the ground, and of a color that would do for summer and winter. In summer she wore wash waists, and in winter a pretty silk so that she always was able to go when she had an opportunity.

It is not only a privilege to go to church, town and neighborhood gatherings, but a positive duty. I don't believe it would be possible to find a woman who boasts of staying at home constantly who is either well or happy. Every housekeeper will testify to the fact that a rainy or stormy day that keeps the children indoors a whole day is one of the greatest trials a mother has to endure. Many a mother groans when the children or "men folks" are forced to sit around the house a whole day, but she never thinks what they have to suffer because she sticks to the house too closely. Ill health, bad temper and general crankiness can be traced directly to the habit of staying indoors too closely. By all means go to town, whether you have a real errand or not, and keep in touch with the world about you. Visit your neighbors in sickness and sorrow, but visit them also when they are well. You will gain more than you lose, and be able to do your work better for having an afternoon off.

The men of the family are usually too sensible to acquire the habit of staying at home. A city man at a country funeral remarked that the men of a certain family looked so fresh and vigorous, while their wives were old and faded and careworn. He immediately set it down to the fact that the women were overburdened with work, but he was wrong. These women rarely ventured beyond their own dooryards, while their husbands attended political and grange meetings, went to town and mingled with their fellow-men. As a result they soon left their wives behind, mentally and physically, for no one can keep in touch with the world without mingling with other mortals.

If clothes, or lack of them, are keeping you at home, remedy the defect at once. If it is merely laziness, break off sharply, and compel yourself to take an interest in life. Whatever may be the cause remove it before it is too late and be a part of the great happy world. People have actually gone insane from too much staying at home and brooding over things that never happened. Do a little "gadding" yourself, and you will see why your happy, healthy neighbors live longer than the ones who stay at home and get more out of life while they do live.

◈

Doing Up the Quince

Quince Marmalade—Wipe the fruit, remove the stem and blossom ends, cut in quarters, remove the seeds; then cut in small pieces. Put into a preserving-kettle, and add enough water to nearly cover the fruit. Cook slowly until soft. Rub through a hair sieve, and add three fourths of its measure of heated sugar. Cook slowly twenty minutes, stirring occasionally to prevent burning. Put into sterilized jelly glasses.

Quince Honey—Pare and grate five large quinces. To two cupfuls of boiling water add five pounds of granulated sugar. Stir over the fire until the sugar is dissolved, add the quinces, and cook fifteen minutes. Turn into sterilized jelly glasses. When cold it should be about the color and consistency of honey.

Quince Jelly—Wipe the quinces, remove stem and blossom ends, cut in quarters and remove the seeds. Put in a graniteware preserving-kettle, and add cold water to come nearly to the top of the fruit. Cover, and cook slowly until the fruit is soft. Mash and drain through a coarse sieve; then allow the juice to drip through a jelly-bag. Boil for twenty minutes, add an equal quantity of heated sugar, boil for five minutes, skim and turn into jelly glasses. Let stand twenty-four hours in a light place, then cover.

◈

A Butchering Recipe

Until you have tried it you cannot realize what a luxury it is to take up meat that just needs warming. I have had, by some change in the men's plans, thrashers or shellers come to meals unexpectedly, and have furnished an abundance of meat when there would not have been time to dress chickens or get to town for fresh beef.

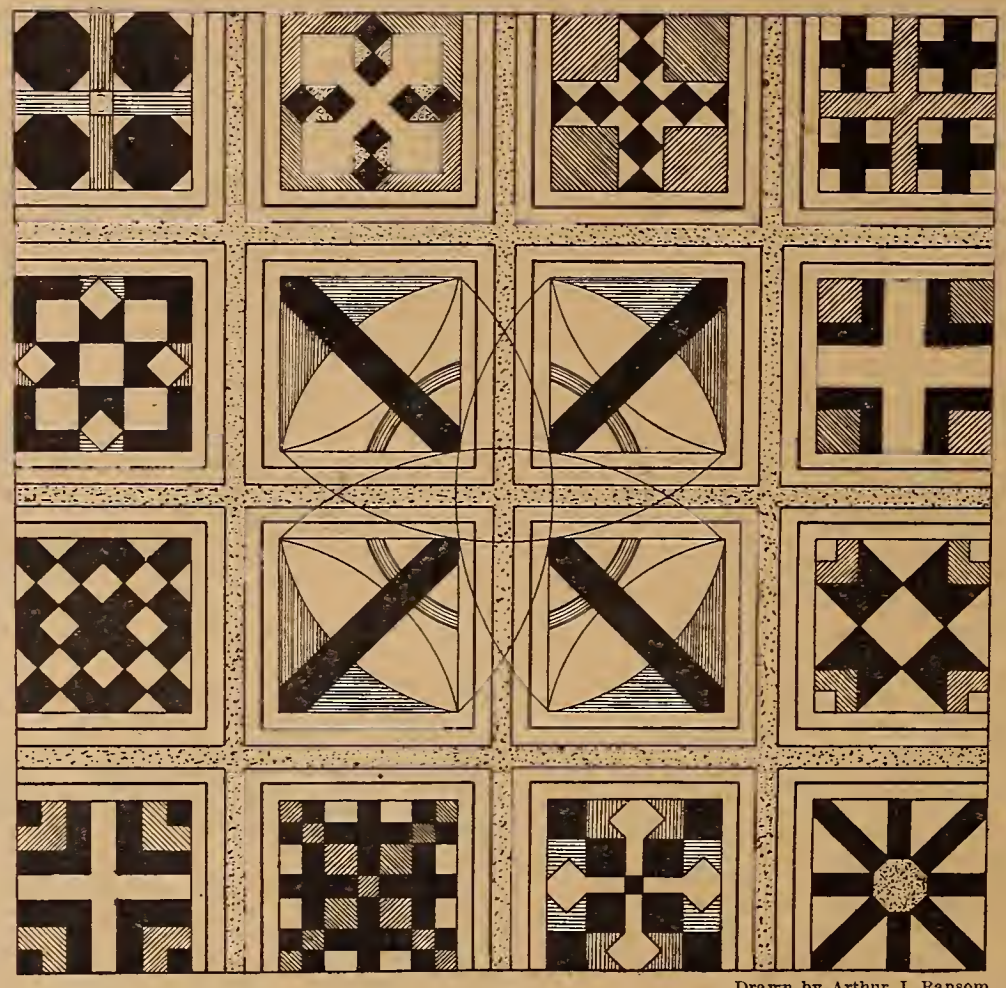
To the farmer's busy wife this method will appeal. After the hams are smoked, slice and fry, cooking only enough to make tender. Have jars ready, and when you have fried a skilletful cover the bottom of a jar to the depth of one inch with melted grease. Then place the cooked ham in layers in the jar. Cook more, and repeat the operation till the jar is filled to about two inches from the top, you having added the grease from the skillet from time to time. Two skillets on the top of the stove and two drippers in the oven is about all that one woman can see to. Lay on top of the ham, when the jar is filled, an inverted plate, on which place a bowl or dish that will hold weights—one or two flat-irons will do. Let the meat be pressed down until morning, when everything but the plate should be removed. Cover the plate about one and one half inches with melted grease. When hardened, tie up the jar and the meat will keep indefinitely.

I generally use jars holding three or four gallons, and tie up with cloth and paper for covering, afterward placing a board on top to keep away mice.

This work can be done in cold weather. After the meat is smoked is not a busy time, for the sausage is made and the lard tried out. By the way, I know one farmer's wife who "puts down" delicious sausage in this way, taking care not to cook the cakes too well done, for the second warming might harden them. This applys to ham, also.

When you begin to use the ham, after you have taken out the first layer, it is not necessary to replace the plate. Remove the meat evenly, cover again with melted grease to the depth of an inch and wipe off the inside of the jar to prevent mold.

Mrs. Denis E. Cooper.



QUILT BLOCK

Drawn by Arthur J. Ransom

◈

Pumpkin Chips

Cut a firm, ripe pumpkin into very thin pieces and cook in water in which a piece of alum the size of a small hickory-nut has been dissolved. Use only enough water to cover the pumpkin. When tender wash, drain, drop into a heavy syrup and cook till clear; drain, put on a platter, cook down the syrup and pour over the pumpkin. Place in the sun or in a warming oven until dry. A small piece of root ginger and a sliced lemon improves this delectable preserve.

◈

Chocolate Pudding

Take a half pound of stale bread crumbs. Boil to a smooth paste in a pint and a half of milk. After removing from the fire take a heaping teaspoonful of butter and as much of cocoa; sugar to taste and a few drops of vanilla. Add three eggs beaten separately, first the yolks, then the whites beaten to a stiff froth. Place in a buttered pudding-dish and bake carefully. Serve with whipped cream.

◈

Cream Apple Pie

Make a rich paste and line the pans. In the bottom of each mix a heaping teaspoonful of flour with four tablespoonfuls of sugar; slice a layer of good cooking apples over this and pour in rich cream until the pan is nearly full. Sprinkle cinnamon or nutmeg over the top and bake in a brisk oven.

Household Pointers

To clean knives easily, take a flat cork, dip it in very slightly moistened knife powder, and with this rub till all stains are removed. Afterward polish with a duster.

The best way to remove ink stains that have dried is to rub them with milk till the stains fade away, changing the milk as it becomes discolored. Afterward rub with ammonia, to remove grease. Fresh ink stains should be sprinkled with salt, which absorbs the ink, and so prevents the stain from spreading. Brush into a dust-pan as soon as it is discolored, and sprinkle with fresh salt, removing in the same way.

A musty metal teapot should be filled with boiling water, and then have a red-hot cinder dropped into it. Close the lid and leave for a few minutes, and afterward rinse with clear water.

To remove grease spots from books, lay a piece of blotting paper under the leaf, and spread powdered chalk over the place where the grease spots will come. Lay the leaf flat upon it, spread chalk on the other side of the spot, lay blotting paper over it, and iron. The chalk will absorb the grease. The simplest way to clean a dirty page is to place it in a flat dish and cover with cold water. The sun will draw out the stains, and the leaf must then be slowly dried, but not in the sun, as this would turn it yellow. Pencil marks can be removed by rubbing with bread, or washing with a thin paste of flour and water. Damp spots may be lightly touched with spirits of wine, and when dry washed with a weak solution of oxalic acid. But unless the remedy is applied in good time damp spots are impossible to remove.

◈

Pumpkin Bread

Sift sufficient corn-meal into a quart of stewed pumpkin to make a stiff batter; add one teaspoonful of salt and three tablespoonfuls of sugar; put in a spider or pan and bake slowly for three hours. Our grandmothers baked this bread in the coals in a Dutch oven, generally over night, and served it warm for breakfast.

◈

Apple Shells

Cut off the top of the apple, being careful to retain the stem. Scoop out the contents, which may be used in the salad, and place the shells in water till wanted. After filling with salad, cover with the top, to which a small apple twig with leaves has been tied.

◈

Keeping Grapes Through the Winter

An easy way of keeping grapes through the winter is by packing them in dry sawdust. By putting the sawdust in an ordinary bake-oven it can be left till thoroughly dry, but not scorched. Seasoned sawdust is preferable, but green dust will do when dried by artificial heat.

Take only good stems of grapes and do not allow them to touch each other in the packing material. Put a layer of sawdust at the bottom of a good dry keg or barrel, then put in a layer of grapes, then a layer of sawdust two inches deep. Be careful to shake the dust so as to completely cover every grape. Continue in this manner until you have filled the barrel. Put in a dry place, not too warm. They will keep till late in the spring.

H. E. White.

◈

In the Kitchen

Tea made with milk is delicious and very nourishing. Warm the pot, put in the tea, and see that the milk is absolutely boiling before pouring it on. Let stand two minutes and it is ready.

The way to soften eggs that have (by mistake) been boiled too long is to get a basin of cold water, put in the eggs, and leave them for about half a minute, which will not only soften them, but improve the flavor.

Every kitchen should have a jar of browned flour for coloring gravies and soups. To prepare this, place a quart of flour at a time in a Yorkshire pudding-tin, in a moderate oven, and stir it about at intervals till brown. Keep the jar well covered and dry.

If soot falls on carpet, cover it thickly with dry salt, then sweep it up quickly, and it will leave no stain. The most satisfactory method of sprinkling clothes is to use a good whisk broom.

To clean trays, shake a little flour on them, then take a clean, soft duster and rub lightly, which will remove all spots.

Rust on a stove may be removed with kerosene. Wash well with a woolen cloth wet with kerosene. Use an old brush on the grooves and ornamental parts. Let the stove stand a day, and then repeat the washing. Finally rub dry with a woolen cloth, then polish with stove blacking.

Mix stove blacking with vinegar; this will make the blacking stick better, and also give a better polish.

The Housewife

Forgotten Pets

LAST summer some children were playing prison with the pet dog for the occupant of the tiny jail, when the mother called them into the house. One thing and another claimed their attention until bedtime, and nothing more was thought of the poor dog till a doleful, feeble bark—the play jail was quite a distance from the house—reminded them of their carelessness. The poor animal had been twenty-four hours without food or water on a sultry July day, and was nearly dead from thirst. Surely when the family dog or cat does not appear in the evening some search should be made, or at least an inquiry concerning the whereabouts of the missing pet.

At a health-resort a lady noticed a fine collie dog near her cottage that acted very strangely. She tried to feed it, but it was very wild and would never touch a bone or bit of food she threw out. She thought it very strange that it eagerly lapped milk and water but refused even the most tempting bones. At last her son made friends with the animal and finally caught it. In patting its head and neck he discovered that when a puppy someone had put a collar about its neck and the poor thing was nearly choked. The hair and flesh were worn away, and its windpipe was actually visible. So deeply was the leather imbedded in the flesh that it was necessary to cut the collar very carefully at the back, and then it was impossible to take it off. The lady poured on a liberal supply of oil and day by day added more to heal and loosen the cruel band. The dog rolled on the ground and whined for pure gratitude as day by day the wound healed. At last the collar came off and the dog is now the devoted companion of the boy who discovered the injury.

Upon making inquiries it was found that the owner had gone away, leaving the dog to its fate, and no one had ever thought to care for it. As the collar became imbedded in the flesh the dog grew more and more shy, and no one dreamed of trying to tame it until the lady took pity on the forlorn creature. If the people who thoughtlessly left it to suffer, could have seen the rapture of the poor thing when the cruel band was at last removed, their hearts would have ached to think of the useless suffering they had caused. Many people allow children to tie strings around the necks of cats, never thinking the strings may become entangled and the cats starve. Teach the little ones that it is dangerous to leave any sort of bands on the necks of animals when they are allowed to run out of doors, for it is not always possible to hunt up strays.

We are all familiar with stories of people who go away for the summer, leaving the cats or dogs shut in the empty house. Because these cases are common they are none the less cruel, and the house should be thoroughly searched before it is closed. A good plan is to provide for the pets of the family, and see that they are safely shut up at the home of the person who is to keep them the day before the family leaves. For many reasons it is not pleasant to come home and find a dead animal in the house, and it is well to take all precautions. If the pets are to go along see that they are securely boxed or tied to avoid trouble. A little boy of my acquaintance still mourns the death of his pet dog that lost its life through the carelessness of the child's mother. She concluded it was all nonsense to pay the baggageman to care for the animal, so she smuggled it into the coach in a wrap, carefully hiding it whenever one of the train-men came in. The frisky dog got tired of staying under cover, and the mother, chatting with a friend, forgot all about it. It ran toward the open door just as the train was starting out of a station, with the small boy in pursuit, and just as it reached the platform a sudden lurch threw it under the swift wheels. The mother was in time to grasp the excited boy, who would have plunged after his pet, but the poor dog was crushed in a moment.

A lady decided her handsome parrot was cold, so she set the cage on the edge of the hot-air register, intending to remove it in a few moments. Instead she wandered about the house doing odd chores and at last went out the back way to a neighbor's, where she remained all afternoon, coming back in time to find the poor thing suffocated. The fire in the furnace was hotter than she supposed, and the cage was too far in the stream of heat, as she had neglected to remove the heavy paper which had been used to protect the cage from the frosty window. She wept and wailed over her loss, but the bird could not be brought back to life. She seemed to think she was the only sufferer in the case, and the loss a financial one, when the poor bird must have been in misery a long time. Too many people do not consider the life of a bird or dumb animal very valuable, but such persons should never keep pets.

Children are prone to forget all about their pets, and should be watched very closely. They will shut them up in out-of-the-way places, forget to feed and water them, tie them to stakes or fences when they do not want them to follow,

ATTRACTIVE COLLAR-AND-CUFF SET

leave pet rabbits to the mercies of dogs and cats, and in various ways treat the poor things cruelly. They are not by nature mean and fiendish, but simply careless. See to it that the family pets are accounted for day by day, and teach the children how dreadful it is to suffer from hunger and thirst. If your memory is poor, or you do not want to look after the little creatures, leave pets for humane people to enjoy.

HILDA RICHMOND.

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Attractive Collars and Cuffs

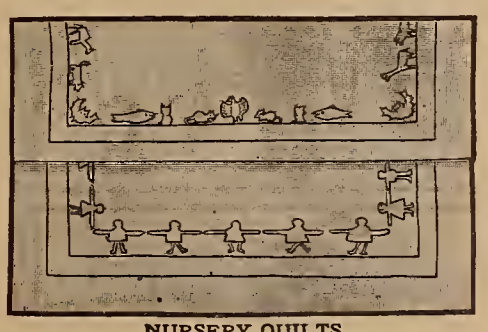
EVERY woman appreciates the luxury of having an ample supply of collars and cuffs; for nothing stamps one more quickly as a refined gentlewoman than always appearing with freshly laundered, pristine white linen. To be thus supplied means the outlay of no small sum if one is not blessed with nimble and capable fingers. However, a majority of us can embroider a little, at least sufficient to make up simple designs of plain over-and-over work or eyelets and ovals.

These may be purchased stamped ready to work, or by a little extra effort a large number of us are able to originate our own designs, and add just so much to the worth of the finished article because of the individuality incorporated, to say nothing of the greatly lessened expense.

The set of collars and cuffs shown is so simple in detail that anyone can copy them readily. The cuffs are of the wide variety, suitable for wrist or elbow sleeves or for jacket wear. One collar is of the stock pattern. The same design may be used on a coat or cape collar or a turnover. The work consists of buttonholed edges, eyelets and solid star-like figures.

The vogue of the little turnover collar seems lasting, and one cannot but appreciate the reason for this when its general usefulness is taken into account. A dainty, easily followed design on a collar of this variety is also shown. It may have cuffs to match, if desired.

Either of the designs shown work up well on écru linen or gray crash, although the white is better suited to all-round usage. The designs are both very pretty when used as an edge to the little Eton



NURSERY QUILTS

jackets, which may be developed in pink, blue, buff or green linen, if a color is liked. Self-colored or white cotton floss is used for the embroidery. These jackets, with skirts to match, are highly favored this season, and any amount of handwork is lavished upon them. When time is an object some such design as these will be appreciated, because of the speed with which it may be carried out.

MAE Y. MAHAFFY.

Nursery Quilt

TWO designs are here given for a child's quilt. One with Noah's Ark animals, the other a border of dolls. These figures are cut from plain blue gingham or percale, and with appliqué arranged upon a square of muslin of the size desired for the quilt.

Turn back a hem three or four inches all around the quilt; place a four-inch border of blue around the square, so that one edge of the border will lap over the raw edge of the hem, and one row of stitching will do for both. Above this plain border place a row of figures cut out of blue cloth, either as a border, or scattered over the square. The latter way is the most pleasing.

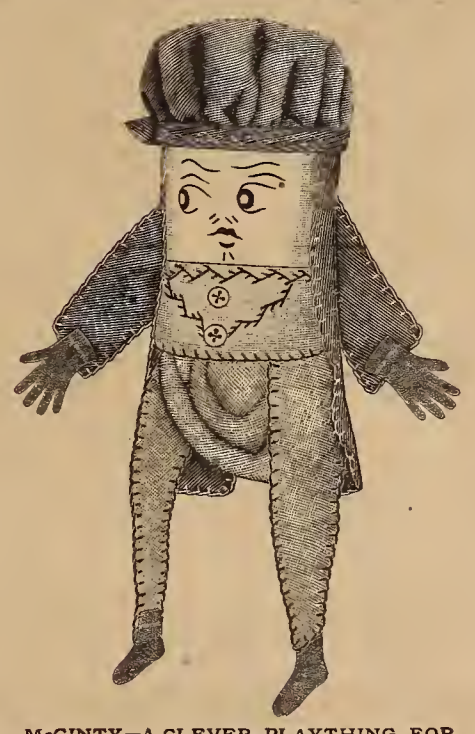
The dolls are cut by folding a five or six inch strip of the blue, and cutting the dolls through, so that when the folds are shook out the dolls are holding hands, forming a circle. Individual ideas can be carried out, both in color and design, and prove a delight to the small boy or girl, especially if he or she should be a convalescent.

HEISTER ELLIOTT.

◈

McGinty

THIS comical little fellow has the power to amuse old as well as young folks. He can be made at home of scraps of different colored cloths. The one illustrated has a cap of red, coat olive green, vest light green, and trousers of brown check quilting. Gold buttons ornament the back of his coat. The hands and feet are of chamois. For the head and body, take a clean, stiff cuff, six inches around and four inches long; sew it securely and make eyes, nose and chin of black water color, lips and cheeks of pink. Cover the lower end of the cuff with the four-inch circular piece of cloth; gather it around and sew to the cuff. Conceal the stitches with a narrow band of the pants goods. Buttonhole stitch around the coat, sleeves and legs with



McGINTY—A CLEVER PLAYTHING FOR THE BABY

green floss, and work a fancy stitch on the vest. Ornament with small buttons and place two of the same buttons on the coat at the waist-line.

Sew the leg pieces with the foot of chamois on the end in position under the vest. Place the coat with the arms in right place, and sew around the top of the cuff so that the cap will conceal the stitches. Under the cap at the back sew a fringe of black ostrich feather for hair. Place within the cuff a large crystal marble, four or five inches in circumference, the weight of the marble rolling in the cuff causes the little fellow to act in a very amusing manner. Knock him over and he will immediately resent the insult by popping up again. Placed at the top of a board on an incline, he will roll down and cause great amusement. When several McGintys are sent down a board in this manner the fun is increased.

HEISTER ELLIOTT.

◈

Method in Housework

NO one can make a success of any great work without following a well regulated system. Method is the most essential thing in any profession, and housekeepers are the only class of people who do not know this.

Did you say "housework is not a profession? My sister, it is the highest profession in this enlightened land of ours. It will be the easiest, and at the same time the most successful one, when the women will have learned to work systematically. To have an orderly and intelligent plan of work for every day and every week and every season is the only right way.

System is a great labor-saving device, and order must be the first law in the homes. How very many steps are saved by living up to the rule, "a place for everything and everything in its place." Too often the house-mother wastes her energy and makes her life miserable by neglecting to plan out her work. The wise one maps out her work ahead of time, and when the time comes she carries it to successful completion without haste or worry.

Have a regular routine and follow it in detail, except when something unusual happens to hinder. Of course there are many times when system must be elastic. I know a tired little woman—and you all have seen one like her—who hurries and works from morning till night and never catches up with her work. She never finds time to read, to visit with her husband, or to play with the children. She says she does not have time to plan, but does with her might what her hands find to do. She is growing old and cross, but she does not know it. I know another whose work is equally as hard, but she appreciates the value of method and does lots of planning with pad and pencil. Her work never drags. It is done easily and well, and there are no "left-overs" to trouble her. Her husband calls her his "little sweetheart," and they have been married eleven years. Her sons have her for their chummiest chum.

M. P. C.

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Indian Pudding

SCALD a quart of milk. Beat a scant cupful of corn-meal with a cupful of molasses and a teaspoonful of salt and stir into the boiling milk. Let it cook ten or fifteen minutes, then set aside to cool. Add half a pint of cold milk, a heaping teaspoonful of butter, a little allspice or cloves and cinnamon, and two well-beaten eggs. Pour this mixture into a well-buttered baking-dish and cook in a steady oven three or four hours—the longer the better. When the pudding has baked nearly an hour pour over it half a pint of cold milk, which must not be stirred, but allowed to soak in gradually. The pudding requires in all three pints of milk, and should be allowed to stand nearly half an hour after it is taken from the oven before it is served. In baking, if it should become too brown, cover with a pan or thick plate.

◈

Apple Cobbler

PEEL and core eight medium-sized apples. Arrange in a baking-dish and fill the cores with sugar. Make a batter of three cupfuls of milk, three ounces of flour and four eggs well beaten. Pour over the apples and bake until the fruit is done. Serve with any preferred pudding-sauce. The easiest to prepare, and one of the best, is sweetened cream sprinkled with nutmeg.

◈

Cheese Cake

TO make one take two eggs, half a cupful (scant) of sugar, one cupful of cottage cheese, two teaspoonfuls of flour, pinch of salt; beat well together, then add one and a half or two cupfuls of milk, depending on the size of the cup. Prepare a nice rich crust (ordinary pie crust) line the pan, then pour in the above mixture. Place four or five small pieces of butter about the size of a peanut on top. Bake in an oven heated as you would for any custard.

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Apple Custard

USE five eggs, well beaten, to a quart of milk. Stir in a pint of apple-sauce, sweeten and flavor to taste, and bake carefully. Set the custard into a pan of water in the oven to prevent burning.

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Peach Kisses

PARE large, ripe freestone peaches. Cut in halves; remove the seed. Into each cavity place a marshmallow. Sprinkle with sugar, set on ice and cover with whipped cream.

◈

Eclaires

PUT half a cupful of butter and half a cupful of boiling water in a saucepan, and place on front of the range. As soon as boiling point is reached, add one cupful of flour (all at once) and stir vigorously until mixture is smooth. Remove from fire and add four unbeaten eggs, one at a time, beating until thoroughly mixed between the addition of the eggs. Shape mixture on a buttered sheet four and one half inches long by one inch wide, and bake twenty-five minutes in a moderate oven. Split, fill and frost.

The Young People

Old Blind Fan

"GET up, you lazy brute!" said the man who was leading an old horse past the house where Bruce and Amy lived. "Get up, I say!" He jerked the strap cruelly, and the old blind horse nearly fell down.

"Mister, what are you going to do with that poor horse?" asked Bruce, as the man grew very angry and had to let the poor animal rest.

"Take her out here and shoot her," said the man, shortly.

"You mean, wicked thing!" said Amy, shaking her small fist at the man. "I'll tell my pa on you, and he'll have you put in jail."

"It's the best thing that can happen to the old plug, children," said the man, turning red. "She's blind and lame, and can't do a day's work any more."

"And then you shoot her," said Bruce, while Amy burst into tears. "Why don't you put her in a nice field, and let her get fat and well?"

"Pshaw! she won't live a month. She'll be better off dead than with someone beating her."

"You just put her into our field," said Bruce. "Amy and I will pump water for her, and she can have all the grass she wants."

The man looked all around and could see no one in sight. He was a stranger in the town, and thought if he put the old mare in a pasture no one would know the difference, and it would be easier than burying her. "Come, Fan," he said more gently than at first, "you're going to have two children to look after you now." He took the halter off her head and hurried away as fast as he could, while the poor animal began eating the tender grass as if half-starved.

When the children's papa came home he looked grave over their story, but the earnest little voices touched his heart. He went with them to look at old Fan, and filled their hearts with joy when he told them they might keep her.

All that summer they worked faithfully, keeping the trough filled with clear, cool water, and Fan enjoyed the grass and shade to the utmost. She would eat out of their hands, and seemed always grateful for the apples and sugar they gave her. I wish every poor old horse could have such a place of rest during the last days of its life as blind Fan had that hot summer.

"Papa said he'd build a little place for Fan in the straw-shed this winter," said Bruce one morning, when it seemed a little cool in the autumn. "Don't you think she's getting nice and fat?"

"She's the nicest horse in the world," said Amy. "I wonder why she don't come for her drink this morning."

The children cried when they found old Fan stretched out under the willows, never to come to the trough again, but they were glad her last summer had been so nice and peaceful. Whenever they see a poor old horse, they ask the owner of it to be as kind as they were to Fan, and sometimes the men are more gentle and patient.—Michigan Christian Advocate.

◈

A Clever Parlor Trick

"I'M GLAD we're having such a long storm," said Lucy, looking contentedly out of the window at the pouring rain; "it gives us so many days to have fun with Uncle Bob. What's the game to-day, Uncle?"

"Well, you children seem to think my supply of tricks inexhaustible. However, I know a good parlor trick," said Uncle Bob thoughtfully. "It's a first-rate one, but you'll have to hunt around for some things to do it with."

"What sort of things?" asked Lucy.

"Oh, nothing difficult to procure. You will need to get three empty boxes, with covers, and mark them A, B and C; then three little things colored red, white and blue, one of each, and finally twenty-four counters."

The children quickly procured these things.

"Now," said Uncle Bob, "we'll begin. Set your three boxes in a row on the table—A, B and C. Now, while I close my eyes and turn my back to you, put one ball in each box and close the boxes."

The children put the blue ball in box A, the red ball in box B, and the white ball in box C.

"Very well," said Uncle Bob, still keeping his back turned. "Now, in the box with the red ball place one counter, in the box with the white ball place two counters, and in the box with the blue ball place three counters."

The order was carefully executed.

"Next," went on the instructor, still not turning round, "listen carefully and make no mistake. In box A put as many counters as there are already, in box B put twice as many counters as are there already, and in box C put four times as many counters as are there already."

Lucy and Fred did exactly as they were told.

"Are the boxes tightly closed?" asked Uncle Bob.

On being told they were he opened his eyes, turned round, and walked to the table.

"The blue ball is in box A," he said, "the red ball is in box B, and the white ball is in box C."

"Well!" exclaimed Lucy, "it's worth getting boxes and balls together to learn such a trick as that! How did you do it?"

"I believe you saw them through the pasteboard!" said Fred.

"No, my eyes aren't X-rays," returned his uncle. "But I'll tell you how to do it—only I warn you the explanation is more complicated than the trick. It all depends on this formula."

	Red		White
1	A	..	B
2	B	..	A
3	A	..	C
5	B	..	C
6	C	..	A
7	C	..	B

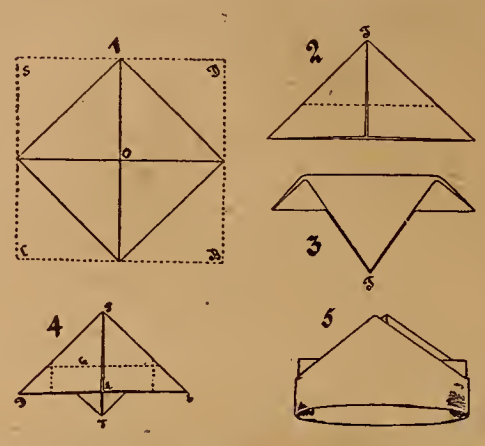
"You see, I always opened my eyes and turned back to the table before I announced which boxes contained the balls. Of course, I could not see into the closed boxes, but I gathered my information from the counters on the table left out of the twenty-four. There will always be left either one, two, three, five, six or seven. By means of the formula we know that if one counter is left on the table, the red ball is in A and the white in B; if two counters are left, the red ball is in B and the white in A; if three are left, the red is in A and the white in C; and so on. The blue ball is not considered in the formula, because having learned the position of the red and white balls, the blue one is, of course, in the other box. The formula is not difficult to learn, and a little practice will make you adept at the game."

◈

How to Make a Bishop's Miter

A CAP in the shape of a bishop's miter may be made of paper by the simple process here given. It is quickly and easily constructed, the material consisting entirely of a square piece of paper. Any kind of paper will answer the purpose, but of course if it is colored or figured a more fanciful effect may be produced. Note these directions, and follow them carefully.

Fold the corners (Fig. 1, S, D, B, C) of a square piece of paper over toward the center (O). Turn the paper around and fold over the middle (Fig. 2). Turn



the upper flap (T) down, fold over the dotted line, and repeat this with the lower flap, when the shape of the paper will be as shown in Fig. 3.

Now the one (upper) flap (Fig. 3, T) is turned back in its old position (Fig. 4, P), whereupon the corners D and E (Fig. 4) should be folded over the vertical dotted lines toward L. Then by joining the corners P and V (Fig. 4) the miter is finished.

◈

Where Ponies Run Wild

THERE is probably only one place in this country where ponies run wild, and are captured every year by being driven into pens. This place is a long narrow island, known as the Core Banks, which lies off the coast of North Carolina, between Core Sound and the sea. Here the Banker ponies, that make such good little steeds for small riders and drivers, live and breed and run wild until they are captured and brought to market.

It is over three hundred years since the ancestors of the Banker ponies were left on the Core Banks. These ancestors were fine large horses. It is not certainly known who first brought horses to this coast, nor when. But they came from Europe, for there were no horses on this continent till the white men came. The island was not inhabited then; and, besides the life-saving men at Cape Lookout, few persons live on it to this day.

The horses had to shift for themselves. They had only the marsh grass to eat, and they had no shelter at all; so, gradually they became smaller, under these bad conditions. They grew long, shaggy coats of hair to protect them from the cold and rain, and their hoofs became larger than is usual with horses, because of their wading through the sand and marshy places. All the surface water on the island is salt or brackish; but the horses have learned to paw down below the surface of the sand until they reach the fresh water below. They literally dig little wells, from which to drink; and while they have lost size, they have become strong and hardy, able to endure cold, and thrive under conditions where large well-bred horses could hardly live.

The ponies run wild, with no care save such as they take of themselves, and up to a few years ago a Banker pony belonged to whoever caught it. Now, however, they have a market value; and they have been claimed and branded, and are the property of various owners, who round them up once a year to brand the colts and select ponies for the market.

These round-ups are called pony pennings. At one of the narrowest parts of the island a strong fence is built clear across from sound to ocean. This fence has one gap in it, through which the ponies are driven into a stout pen. A line of men moves forward across the island, driving the ponies toward the fence and the entrance to the pen.

When the animals are closely bunched and pretty near the pen, the beaters rush forward with wild yells, waving their arms, and start the little creatures running. On they rush, pell-mell, over the sand, kicking, squealing, jumping, but keeping as far as they can ahead of the line of beaters, until at last making a dash for liberty, they pass through the wide gates, and are in the pen.

Here it is that the real work of the day begins. In a pen not more than a hundred feet square two hundred ponies will sometimes be gathered. They are of all ages, from the old ponies that have been the heroes of many pennings, to the little new colts trotting, scared and wild, beside their mothers. If there are any colts more than a year old that do not bear any brand, they become the property of whoever can catch and brand them; but the young colts belong to the owners of their mothers, and are usually branded at the spring penning.

It takes a strong, quick man to catch and subdue a full-grown Banker pony. The wild, unbroken creature plunges and lashes out with its sharp hoofs and bites at its would-be captor so vigorously as to make the work both exciting and dangerous. The man knows that it is the safest to be close to the pony, so close that it cannot kick him or strike him; so he sticks at the side of his intended captive, and, after many attempts, generally succeeds in getting a rope slipped tight about its neck. Once haltered, it is not usually long before the little horse is thrown and secured, and weariness finally subdues it.

It is not difficult to train the Banker ponies to saddle and harness. They are particularly good saddle horses, easy in their gaits, with splendid speed and endurance. The ponies are used to hardship, scant fare, and no shelter; but they improve constantly under good care. They grow handsomer and more spirited, and if they find that they can love and trust their young owners, they are the happiest, most delightful pets boys and girls can have.—Sunday Magazine.

◈

Listeners Never Hear Any Good of Themselves

Three little crickets, sleek and black,
Whose eyes with mischief glistened,
Climbed up on one another's back
And at a keyhole listened.

The topmost one cried out, "Oho!
I hear two people speaking!
I can't quite see them yet, and so—
I'll just continue peeking."

Soon Dot and grandma he could see—
Tea-party they were playing;
And as he listened closely, he
Distinctly heard Dot saying:

"This pretty little table here
Will do to spread the treat on;
And I will get a cricket, dear,
For you to put your feet on."

The cricket tumbled down with fright;
"Run for your life, my brothers!
Fly, fly!" He scudded out of sight,
And so did both the others.

—St. Nicholas.

The Puzzler

The Pictures Below Suggest the Names of Six Popular Works of Fiction

Answer to Harvest Puzzle: Thrasher, Sheaves, Wind Stacker, Windrows, Raking, Hay Ladders

The Sense of Honor

THERE are many things which no one calls wrong, yet in doing them we are conscious of an uneasy sense of falling below the standard of perfect honor.

They are mostly acts born of thoughtlessness or curiosity, or even idleness, and it is just because of this that the high-minded mother can impress her ideas of honor upon her little ones by her daily example and daily precept.

A step is made in the right direction when a child is taught to restrain his curiosity about other people's affairs. This will prove a good foundation for the future sense of honor, since to curiosity many little acts of meanness and underhandedness owe their birth.

Children should be trained, too, to be trustworthy in word and in deed. Secrets should be told them—not very important ones at first, perhaps—and they should be encouraged to keep them sacred, a betrayal being treated with the stern and bitter contempt which is so much worse than any punishment.

The habit of petty pilfering, which so often goes on in the home pantry, should be considered and treated as a breach of trust.

It is not hard to make the youngest child recognize the difference between the taking of things from the grocer's—which is a real theft—and the taking of them from the family reserve put aside for the common use, and in a measure under the care of all. This last is a breach of the trust mother placed in him, and is a dishonor to the culprit.

Another small way in which our carelessness may make the children careless is in our attitude toward the letters we receive. Of course, we say that the contents of a letter are sacred, and yet we do not hold them so always. We too often read a letter or tell its contents before those in whom the writer would not have confided were choice possible, and surely there is lack of honor in this.

A grown person is not apt to read a letter addressed to another. Of those who would read it and take advantage of its contents it is not necessary to speak here; but many who would scorn to do this would not acknowledge the meanness of finding out some private or personal affair of an acquaintance and making it the subject of gossip.

The temptation of the letter and the bit of gossip is pretty sure to come some time, and is often too strong to be resisted if there has been no training in the belief that a correspondence is hemmed in by stronger bolts and bars than those of iron.

We all need—men and women alike—more of the sense of honor in our lives, and women especially need it in these small matters; but no increase of this grace can be looked for until we realize—and teach our children from the cradle up—that honor is a virtue in itself, like cleanliness or bravery, and is not a quality which we may use when we please or neglect at will.—Public Ledger.

◈

An Unappreciated Virtue

WE READ of silence in heaven, but there is no record that hell has ever known it. Earth would be more heavenly if there were more frequent "flashes of silence." There may be regret because of unwise silence, but far more numerous and painful are the remembrances of foolish and hurtful speech. We have given so much attention to the power of speech that we have almost lost sight of the wonderful influence of silence.

The convincing eloquence of patient quiet should have more consideration as a means of grace. We manifest Christ by our earnest plea for right, and our brave rebuke of wrong; but there are experiences where words are weak, when it is far better for the light to shine in beneficent stillness. The fog-horn has its mission, but the ministry of the lighthouse needs no argument. It is a wonderful accomplishment, this saying the right word at the right time, but no less wonderful is the restraint where nothing should be said. It is no easy matter to know "the time to keep silence," but if that time is sacredly observed the result will be of far-reaching benefit. The rest in music is no mean part of the melody. The power of our speech is according to the wisdom of our silence.

The silence of Jesus made Pilate marvel. It was not the quiet of fear, nor of weakness, but of courage and power. His silence was part of his teaching. Aaron, who could speak well, was passed by, and Moses, who was "slow of speech," was chosen for the leadership of Israel. "He that hath knowledge spareth his words." Volubility evidences shallowness. John Wanamaker's partner, Mr. Ogden, says that the habit of talking too much is one of the most common causes of business failure.

Sunday Reading

What the Good Samaritan said has been made the text of many a sermon, but what the worthy Samaritan refrained from saying is even more remarkable, and more condemnatory of the priest and Levite. He was an apt student who, having heard the words, "I will take heed unto my ways that I sin not with my tongue," refused further lessons until he had learned the first more thoroughly. Years passed, and he said he was still busy over the same difficult problem. The art of silence cannot be "learned in twelve easy lessons." To "smile and make no sign" in the hour of contradiction, to present the unanswerable argument of wise silence is a matter of slow attainment. The very difficulty proves its worth. The overflow of the heart finds expression in speech, but the greater power of the silent depths, though unspoken, exerts untold influence. Peter well remembered the words of his Master, but the memory of that night when "the Lord turned and looked upon" him was an abiding reminder of the folly of self-confidence.

Were we more desirous of being than of saying our speech would be more forceful and our silence more sacred. Whatever the power of speech there is a limit to its emphasis. Silence leads forth into the infinite. "My little children," wrote the apostle of love, "let us not love in word, neither in tongue, but in deed and in truth."

The silent force of character is a constant rebuke of wrong, an unfailing inspiration to the right, and to needy souls a supply of strength through the wondrous power of wordless sympathy. "While I was musing the fire burned, then spake I" —he spoke when it was fitting—his silence made speech effective. Our pledges to "testify" should be supplemented by inclusion of judicious silences as a form of testimony. Quaint George Herbert pleaded that man would "speak fitly or be silent wisely." Many would really say more if they would talk less.—H. R. Goodchild in the Presbyterian Banner.

◈

The Oratory

Still in the vaulted temple of my heart
There is an oratory thine alone
A sweet, hushed, sacred chantry all thine own.
There will I fly when I would be apart
To dream and dream, for there I know thou art,
Albeit I see thee not. There is thy throne;
There art thou crowned, and as at altar-stone
Fain would I kneel and let the day depart!
While this remains I cannot lose thee, dear,
Though countless centuries between us roll;
Though earth dissolves, and planets disappear,
And all the splendor of the starry scroll
Dies out of heaven, what room is there for fear?
Love still shall answer love, soul call to soul!

—Julia C. R. Door.

◈

God Took Him at His Word

A STORY is told of a distinguished classical scholar in India. He had a thorough knowledge of four of the principal languages of Europe. Besides this, he was a fine musician. In his early manhood he was a skeptic and a pessimist. At last, however, there came to him a great experience which made him feel the need, and ultimately see the truth of immortality. One night he wrote these words: "If there is one above all who notices the desires of men, I wish He would take note of this fact, that if it please Him to make known His will concerning me, I should think it my highest privilege to do that will, wherever it might be and whatever it might involve." It was a cry out of darkness, and not long after Jesus Christ became to him the peace and enthusiasm of his being.

Soon there grew up in him a new sense of obligation to humanity. He was led to leave wealth for poverty, to give up a luxurious home for a mud-walled hut, to break away from the cultured and friendly, and go and see to the needs of the ignorant and uncivilized. He went to India, and for forty years he dwelt among the people of that land. Persecution, epidemic, and almost intolerable heat could not drive him away from Bombay's crowded streets. During all these years the thin, frail man spent himself in unwearied self-denial, among a people who were very often irresponsive and violently hostile. He was consumed with a passion for bettering the people among whom he lived, and the time came when he laid down his life on their behalf. That is the enthusiasm which has been, and still is displayed by many toward the dark and benighted heathen. —Illustrated Missionary News.

◈

Object Lessons in the United States Army

IN THE exercise of its legal and judicial powers, the army of the United States has recently taken drastic measures with some of its officers. A certain lieutenant forsook his Filipino wife and child, with the intention of marrying an American girl to whom he had been engaged. A sergeant was guilty of different, yet similar conduct. Both of these men have been placed under the ban, suitable punishment meted, and the object lesson placed before American soldiers and Filipino subjects, that American civilization and enterprise stand for certain fundamental and persistent moral principles.

The plea made for the misconduct of these men, was that of accommodation. They naturally fell in with the loose customs of the place, and did obeisance to the god of the land. Very properly, this was regarded and pronounced by the supreme authority, to be no palliation of the offense. Indeed, does not this make the wrong more heinous?

The first fact to be impressed on the minds of that untutored people, is that of the benign intention of this country. A few events violating fundamental principles of society, will do more to make those people suspicious of our designs, than long instruction of many secular and religious teachers will be able to correct. The protest of our government, when severely taken to task for what many considered unwarrantable conquest, was that we purposed "benevolent assimilation" and the spread of the spirit of liberty. The greater the necessity then, that the line be sharply drawn between liberty and license. The Eastern mind confuses the two, and much earnest effort will be required to make clear where this winding line takes its course.

Again, all men at length are most deeply impressed by character. The Filipinos should be left in no doubt as to the conditions begetting best qualities.

Turbulence is most stirred where just grievance is felt. "He is thrice armed who hath his quarrel just." A few displays of so gross conduct will furnish our army with a larger and less worthy job. If the Filipinos are to be qualified for self-government, they must learn from our representatives that self-government is a farce without individual government of self. Indeed, changed conditions make more glaring and deplorable the offenses cited.—Baptist Commonwealth.

◈

The Desire to Accommodate

THERE is nothing people appreciate more than being served by those who really enjoy accommodating them. What a comfort, at a strange hotel especially, to be served by those who seem anxious to please us, who seem to take real pleasure in making us feel at home and comfortable! There is no one quality which will help youth along more rapidly than the cultivation of this desire to please, to accommodate. It appeals to everybody; it creates a good impression.

A sourly impudent Pullman porter often destroys the pleasure of a whole journey on a train. An impudent clerk in a hotel office can make everybody in the house uncomfortable, and such service is dear, even if it could be had for nothing.

It is noticeable that a boy who always tries to help wherever he can and to make everybody comfortable, who is accommodating in everything, is very popular, and, other things being equal, most likely to be promoted.—Success.

◈

Preachers and Politics

SOME people seem to think that the preacher of the gospel is another sort of being from the ordinary mortal. But he is not. To be a preacher of the gospel does not rob a person of his manhood and citizenship any more than to be a lawyer or a physician. It is true that the gospel preacher is a citizen of another country, even an heavenly; but he is none the less a citizen of the country that now is. The fact that it is the preacher's duty to minister to the spiritual needs of the people should not cause him to lose all interest in temporal affairs. The nobler the preacher's devotion religiously, the more loyal should be his aim politically. The scriptures plainly teach that the preacher is not to divorce himself from all governmental affairs and civic relationship. God's prophets in olden times held an intimate relation with kings and rulers, and were never silent on public affairs when the cause of righteousness was in danger. We frequently hear politicians say, "Let preachers attend to the saving of souls and leave us to run the government." But these politicians forget that Christ and the scriptures and the church have to do with life in all its relations, and that whenever the principles of right and wrong are involved in political and social issues, it is the preacher's place as a Christian citizen to have something to say. One of the main causes of corruption in the political world to-day is due to the fact that good people withdraw and leave the management of political affairs to unscrupulous politicians. A so-called politician is quoted as saying, "I would rather have one saloon on my side than a dozen churches." If it is true that one saloon exerts a greater influence on political affairs than a dozen churches, it is a great shame on the churches. And yet I doubt not but that it is true in many places. In many places the saloons control the political affairs and dictate who shall fill the various offices. This is permitted many times when the better element of the community is in the majority.

It is related of D. L. Moody that one time on arriving in a certain city to conduct a series of evangelistic meetings, that he inquired of a pious churchman about the attitude of the place on some prominent political issue. The man replied, "Oh, Brother Moody, I do not know anything about politics; my citizenship is in heaven." Mr. Moody replied, "You had better get your citizenship down here till we get some of the political questions settled."

It is the duty of the preacher of the gospel, as well as of all Christians, to take a lively interest in political affairs, for the moral and religious condition of the world are greatly influenced by the political condition of the people. The preacher of the gospel as a citizen is under obligation to attend the caucus, to vote and to use his influence to secure the election of the best men to fill the offices. Dr. Parkhurst says, "If you vote for a man you know to be a bad man, and he is elected, his official acts are your acts. If you do not vote for a good man and a bad man is elected, his acts are your acts."—Rev. J. William Neyman, M. A.

◈

The Wings of the Soul

IF YOU will go to the banks of a little stream, and watch the flies that come to bathe in it, you will notice that, while they plunge their bodies in the water, they keep their wings high out of the water; and, after swimming about a little while, they fly away, with their wings unwet, through the sunny air.

Now that is a lesson for us. Here we are immersed in the cares and business of the world; but let us keep the wings of our soul, our faith, and our love, out of the world, that, with these unclogged, we may be ready to take our flight to heaven. —Christian Commonwealth.

◈

The Anvil of God's Word

[NOTE.—There has been some controversy as to the authorship of this well-known piece. It is stated authoritatively that the author is Mr. L. B. Cake. He published the first three verses of the piece in the Chicago "Current," December 27, 1884. Some years later he added a fourth stanza, and giving the piece a new title, "A Reply to Ingersoll," sent it out as a tract.]

Last eve I stood before a blacksmith's door
And heard the anvil ring its vesper chime;
Then looking in I saw upon the floor
Old hammers worn with beating years of time.

"How many anvils have you had," said I,
"To wear and batter all these hammers so?"
"Just one," he answered, then with twinkling eye,
"The anvil wears the hammer out you know."

And so the Bible, anvil of God's wrath,
For ages skeptic blows have beat upon;
And tho' the noise of Paine, Voltaire, was heard,
The anvil is unworn—the hammers gone.

Apprentice blows of ignorance, forsooth,
May awe with sound, and blinding sparks death-whirled;
The Master holds and turns the iron His truth,
And shapes it as He wills, to bless the world.

—British Weekly.

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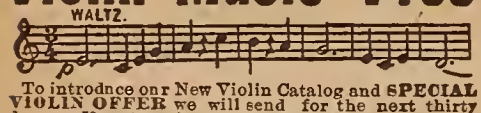

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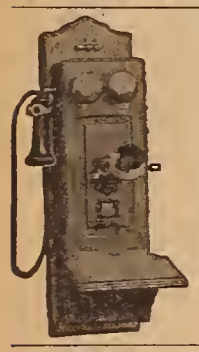

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Half a Dozen Autumn Waists

By Grace Margaret Gould

No. 808—Tucked Shirt-Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material

OF COURSE, there is no denying that the separate waist of the past year or more has been a delight to the eye, so filmy and exquisitely dainty has it been. Yet, the woman who wore it knew well the defects which its loveliness covered. The fact that invariably it buttoned up the back made every woman long for a maid, whether she could afford it or not, and as to a strain on one's patience—well, every woman who has tried to get each one of the little buttons at the back of her waist into the equally small buttonholes, knows all about that, too.

Then, this much-favored separate waist has generally been of the lingerie order—so sheer, in fact, that it was really of a blow-away texture. To send it to the ordinary washwoman was ruin; to pay extra to have it laundered was an added expense. And speaking of expenses, there have been the appalling bills for long gloves, due entirely to the vogue of the elbow-sleeve waist. So much for the separate waists of the summer, with their beauty touches and their shortcomings.

Now the autumn waists are here, and many changes have they brought with them. The models illustrated on this page are all original designs, each carrying out a very new and very fashionable idea.

Many tailored waists will be worn this fall and winter, buttoning in the front, and made with long sleeves. Fine French striped flannels will be much favored for these waists, and madras, both in Scotch plaid and white with a jacquard figure. The more severe in style the better these waists are liked. Pockets are among their admirable features.

In regard to the more elaborate waists, the new tendency is away from the lingerie model and toward the waist of supple satin or chiffon taffeta. These silk waists are to be the height of style. Then, there are the equally fashionable crêpe de chine, net, and chiffon-cloth waists, which will be so trimmed with laces that they will affect the lingerie style.

The three-quarter sleeve is much liked for these waists, or an elbow sleeve is used, made to be worn with or without a detachable lace or embroidered silk cuff.

Where the waist opens is entirely according to its individual design, but it is a noticeable fact that fewer waists open in the back than for some time past.

So firm a hold have the Empire ideas on the autumn fashions that many of the new waists show an Empire effect in their trimmings. A short little bolero of lace is often used to give the short-waisted Empire look. And, by the way, the little Empire bolero is a decided convenience in remodeling an old waist. When lace is not used, a bolero effect may be prettily simulated by using small artificial flowers.

Many waists of crêpe de chine, marquisette and soft silk, are made with a guimpe of lace. Guimpe effects are also produced in the new waists by means of slashes. This idea makes a most attractive trimming, especially when the slashes are crossed with narrow velvet ribbons.

In all the new waists, whether they are plain or elaborate, but few striking color-contrasts are seen. It is more fashionable to combine two or three shades of one color than to use one color for the waist, and a distinctly different color for the trimming. A waist, however, of light brown may be made up with lapels of a much deeper shade of brown velvet, or a vest may be introduced in a lighter or darker tone than that used for the body of the waist.

Many of the new waists are made with detachable sleeves. That is, the sleeve proper is elbow length, but a separate under sleeve comes with it which may be easily attached to it. The elbow sleeve is generally finished with a frill under which a row of tiny hooks are sewed. These fasten to the eyes, which are sewed to the top of the under sleeve.

No. 812—Waist with Tuxedo Lapels

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one half yards of twenty-two-inch material, or two and seven eighths yards of thirty-six-inch material, with one yard of velvet for trimming

No. 810—Fancy Waist with Empire Bolero

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and three fourths yards of twenty-seven-inch material, or two and five eighths yards of thirty-six-inch material, with three eighths of a yard of all-over lace, and eight and one half yards of lace six inches wide for trimming

No. 809—Waist with Vest and Cape Sleeves

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five yards of twenty-two-inch material, or two and one half yards of thirty-six-inch material, with two yards of lace, and one half yard of material for trimming

No. 811—Box-Plaited Shirt-Waist with Pockets

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material

No. 813—Fancy Double-Breasted Waist

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and three fourths yards of twenty-two-inch material, or two and three fourths yards of thirty-six-inch material, with one yard of material for trimming

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Wit and Humor

Showed His Hand

The plaintiff, a laboring man, had been thrown on the ground by an electric car, and he claimed damages for a permanent injury, namely, that he could no longer raise his arm above a point parallel with his shoulder.

The lawyer for the electric railway put him through a simple-looking examination, beginning by a few very sympathetic questions. Then he continued: "Will you be good enough to tell the jury the extreme limit to which you can raise your arm?"

The witness gladly complied, raising his hand with difficulty to the height of his shoulder only.

"Ah, thank you, sir. Now, will you be

Farmer—"Did you ever make any money backing horses?"
Boarder—"Yes, I backed a horse down cellar once, and then sued the man for leavings his cellar door open."

so good as to show us to what point you could raise your hand before this unhappy accident?"

The man at once shot his arm up to its full height above his head, and the lobby burst into a fit of laughter which the judge did not restrain.

◈

He Spoke His Mind

Two Irish farmers who had not seen each other for a long time met at a fair. They had a lot of things to tell each other. "Shure, it's married I am," said Murphy.

"You don't tell me so," said Moran.

"Faix, yes," said Murphy, "and I've got a fine healthy bhoy which the neighbors say is the very picture of me."

Moran looked for a moment at Murphy, who was not, to say the least, remarkable for his good looks, and then said: "Och, well, what is the harum so long as the child's healthy?"—Dublin Gazette.

◈

Fined the Dead Man

The judge's decision in a case settled a few years ago in Millinocket, Me., probably will not serve as a precedent, but no exception to it was reported.

An Italian laborer was killed while at work on a dam at the pulp-mills. At the hearing before the local justice there was found in a pocket a roll of bills containing $25, and hidden in one of the bootlegs was found a dirk knife.

As there was no probate court within many miles of the town, the judge was

Tramp One—"Let's go South where there's nothing to do but lay under the trees and eat bananas."
Tramp Two—"But you have to pick the bananas off the trees, don't you?"
Tramp One—"Certainly."
Tramp Two—"I knew there was some drawback."

at a loss to know what disposal should be made of the money. Finally he hit upon the solution. The court took charge of the money and fined the corpse $25 for carrying concealed weapons.—Boston Herald.

◈

Too Great a Risk

He desired to take out a life policy for $50,000.

Smiling eagerly, the agent drew forth the blank form and began the usual series of questions.

"Query six," he said at length—"are you an automobilist?"

"No," was the ready rejoinder, "I am not."

"Motorcyclist, perhaps?"

"No."

The agent with a sigh laid down his pen.

"I am sorry," he said, "but we no longer insure pedestrians."—Minneapolis Journal.

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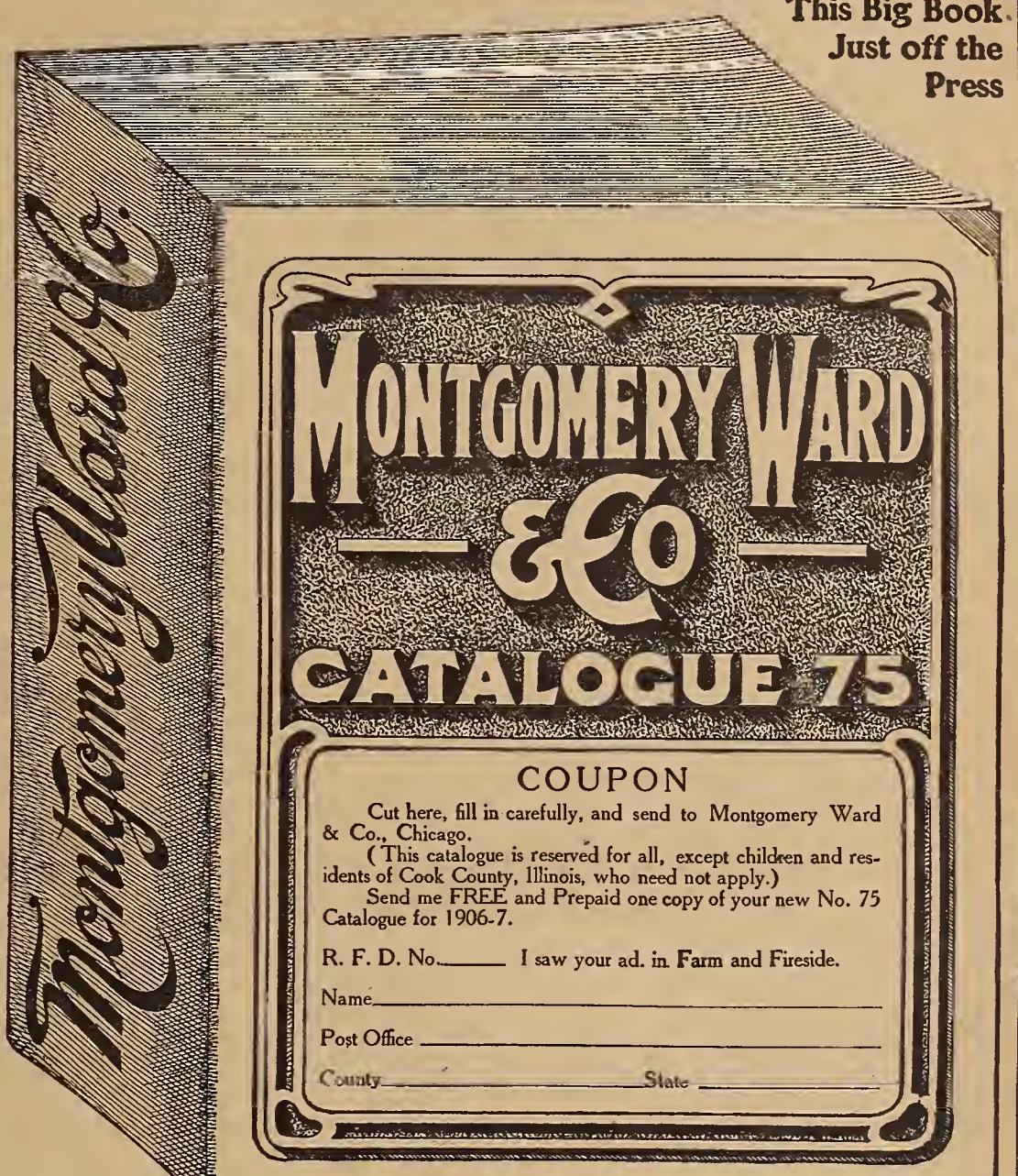

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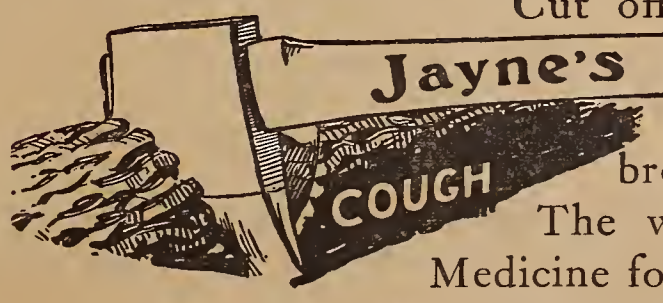

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AN ILLUSTRATED FARM AND FAMILY JOURNAL

EASTERN EDITION

Vol. XXX. No. 2 | SPRINGFIELD, OHIO, OCTOBER 15, 1906 | TERMS { 25 CENTS A YEAR / 24 NUMBERS

Cider-Making

BY HIRAM H. SHEPARD

IN THE apple-growing regions of the United States, and especially in the older settled sections, the starting of the cider-mill in late summer or early autumn is an event of the neighborhood in which all are interested. The taste for fresh, sweet cider, right from the press, to those who have been accustomed to it all their lives comes back each year with the ripening of apples. All, old and young, are eager for the taste of new cider, and many like the juice of the apple when it is a day or two old, after a little fermentation has taken place, giving it a sparkle, a slight acidity and a tingle to the tongue. It is claimed by those who know that one can drink his fill of three-day-old cider without injury to life or limb, but that to taste it after that period of fermentation is a direct evidence of the strong drink tendency.

The local cider and apple-butter factory is usually a crude affair. It is usually located in the country, owned and run by a farmer who has time to spare after harvest and the corn has been laid by. The motive power is a "horse power," because his teams at this time are not much needed for farm-work. The fall plowing can be done between spells, and the corn can be gathered after cider-making is done.

The cider-mill is protected by a rude structure, consisting essentially of a roof, sometimes boarded up on one or two sides. Its sole function is to keep off rain and sun, there being no need of protection from cold, as August, September and October, cider-making months, are always warm or pleasant. Under this structure, the apple-grinding machine is at one side, the cider-press in the center, and the apple-butter furnace and boiling pans at the other side. This arrangement makes it convenient for scooping the apple pomace from the grinding-trough to the press, and for measuring and pouring the cider from the press into the boiling-pans.

The grinding machinery consists of a wooden cylinder about a foot and a half long by one foot through, the surface of which is full of nails left projecting a half inch or more, forming teeth, which, by the rapid revolving of the cylinder grind the apples into a fine pomace, allowing free escape of the juice. This cylinder is enclosed by a hopper, into which the apples are scooped from the wagon. It is mounted upon and at one end of a long, deep trough or vat for the reception of the pomace. It is a simple machine, but when the belt from the power is attached and the horses start to go around it makes a humming noise equal to a thrashing-machine, or like the distant hum of an express train. The power required to run it is small, two good horses being all that is needed. A wagon-load of apples, making sixty to a hundred or more gallons of cider, can be ground in twenty to thirty minutes. It takes much longer, however, to express the juice than it does to grind the apples, hence the horses get to rest more than half the time even during the rush of the season.

FILLING THE PRESS

The cider-press is the most substantial piece of machinery connected with cider-making. It consists of two very heavy upright timbers about ten feet high, and sunk several feet in the ground for solid support. The upright timbers are bound together by four other timbers not quite so heavy, but very strong, placed horizontally, two at the top carrying the heavy iron screw, and two at the bottom supporting the base for conducting cider to the receiving tub and holding the frame and cheeses, as they are called, after the pomace has been placed in coarse, porous cloths for pressing. These cheeses are built up, layer after layer, with a slatted frame between each to allow the escape of juice, and when all are completed and the top reached, a wide, solid board frame is placed on top of all, and the great iron screw, with tons of power in it turned down upon them. As it is forced down the pressure forces out the cider, causing it to run down in small streams on all sides and uniting into one large stream on the sloping base of the press, which flows in one torrent of cider into the big tub placed to receive it. This tub, holding twenty or thirty gallons, is filled within a few minutes, and would soon overflow were it not measured out into barrels or other receiving vessels. The greater quantity of cider flows out with the first dozen or two downward turns of the screw, flowing less and less as the screw goes down, till at last there is only a small dripping, and the cheeses, which were a foot thick in the beginning, have been squeezed to two or three inches, and flat as the memorable pancake. The downward turning of the screw is easy at first, being light work with a lever two to three feet long, but toward the last, in order to get all of the cider out so much pressure is needed that it requires turning with an iron lever eight or ten feet long, making one strong man bend with all his strength to move it. From one full pressing about fifty gallons of cider are made if the apples are juicy, a bushel of apples yielding about six gallons. The last cider that runs from a pressing for some reason is a little bitter, not being so good as the first unless the apples are absolutely perfect. Apples fully or over ripe do not yield as much cider as those which are slightly green or just turning ripe. Some kinds by nature are juicier than others.

GENERAL VIEW OF THE CIDER-MILL

Although a large part of all apple cider is made into vinegar, yet a large share of it is made into apple-butter which is a fine food, or relish, when made of sound and ripe apples. Apple-butter is made by boiling together a mixture of apple cider and peeled and cored apples. The cider is placed in

[CONCLUDED ON PAGE 5]

FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL PUBLISHING CO.

SPRINGFIELD, OHIO

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Comment

Independence in Politics

THIS is a time of political unrest. There is a manifest and laudable disposition on the part of voters to smash political machines and break party ties whenever the occasion demands such action in the interest of good government. There is independence within party lines in making platforms and nominations, and independence in action when it comes to voting for the candidates nominated.

Ordinarily it is not easy for a loyal, consistent democrat or republican to cast his vote for the opponent of his own party's candidate, but extraordinary conditions are making it easy. When voters in large numbers act independently there are usually urgent reasons for their doing so, in fact, they are practically forced to do it. Sometimes burdensome conditions compel them to make a headlong rush, regardless of the consequences. The tremendous vote one year ago in New York City for the candidate of the Municipal Ownership League must more properly be regarded as a strong protest against the doings of city officials and public-service corporations than an expression of deliberate opinion on the merits of municipal ownership of public utilities. Citizens saw evils and felt them, and they determined to get rid of them without regard to the merits or defects of the method by which they hoped to get relief. Hopeless of reform under the present system, and disgusted with aldermen, gas monopolies, traction consolidations and ice trusts, they were more than willing to risk the experiment of a radical change in the economic system.

Last year Ohio furnished a conspicuous example of independence within party lines. General Grosvenor, an able and experienced representative and a brilliant parliamentarian, was defeated for renomination for Congress; chiefly because he no longer properly represented the people of his district, state or country. Among other "interests" he chose to serve in Congress was oleo, and that brought his career to a timely end.

This year there is another good example of independence outside of party lines in the 34th Congressional District of New York State. James W. Wadsworth another champion of oleo, and a servitor of the beef packers, managed to secure his own renomination, but the revolt against him and his machine is so strong that a formidable, independent candidate, Peter A. Porter, will, very likely, be the next congressman from that district. The farmers of that important agricultural district will be doing justice to themselves and be rendering good service to the whole country by sending Wadsworth to join Grosvenor.

Ohio now has some eminent and brilliant men in Congress who will receive proper attention when the time comes, either within or outside of party lines as the cases may require, if they show up for renomination or reëlection. When one third of a great state convention, made up largely of office-holders, office-seekers and machine politicians, vote against a resolution endorsing United States senators, it is a very good indication that at least two thirds of the voters in the party are also against them.

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Control of Corporations

Out of investigation, study and discussion of corporations, and out of the determination to get rid of some of the evils connected with their management and methods of doing business, there will surely come some plan of reformation. The American people will not stand for the perpetuation of monopolistic conditions that impose great burdens on them in order that a few may accumulate inordinate wealth. The great mass of producers are entitled to a fair share of the product, and they won't be happy until they get it; a great deal of the social unrest of the day is due to the fact that they don't get it now.

In a recent address before a department of the University of New York, Commissioner James R. Garfield, of the Department of Commerce and Labor, said:

The problems of business are no longer single. They are no longer the problems of the individual. They are the problems of the corporations. A corporation has great power—greater than that of the individual—and hence greater responsibility. It is a creature of the state and should be controlled by the state. The individual is lost in the corporation. This loss of personal responsibility has resulted in the loss of conscience.

The key note in this excerpt is that the corporation is the creature of the state and should be controlled by the state. If we see that clearly, we see the way of reformation. Citizens are not exercising the privileges of a free republic if they permit a creature of the state to run the state, and eventually to ruin the state. In self-defense the people are going to do something. What will come, state control of corporations or state socialism?

Referring to the business use of corporate wealth President Roosevelt, in his Harrisburg address, says:

It shall and must ultimately be understood that the United States Government, on behalf of the people of the United States, has and is to exercise the power of supervision and control over the business use of this wealth—in the first place, over all the work of the common carriers of the nation, and in the next place over the work of all the great corporations which directly or indirectly do any interstate business whatever—and this includes almost all of the great corporations.

To exercise a constantly increasing and constantly more efficient control over the great common carriers of the country prevents all necessity for seriously considering such a project as the government ownership of railroads—a policy which would be evil in its results from every standpoint.

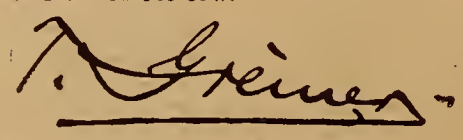
J. C. Barnett.

The Emblem of the Cow

FARM AND FIRESIDE has always carefully refrained from discussing matters of a partisan political nature. It may, however, be interesting, under the particular circumstances very gratifying, news to many readers that in the 34th Congressional District (the extreme western end of New York State, including my own county) the picture of the cow will appear on the official ballot as the emblem of the "Independent Congressional Party." The nominee is a life-long republican and a good man, who will have the endorsement of the Democratic party, thus pitting one republican against another and taking the fight entirely out of politics, but making it a question of men and of business.

James Wadsworth, who has represented and more usually misrepresented this chiefly agricultural district, is chairman of the committee on agriculture in the House of Representatives. During his long congressional career, being known as the "life member from Livingston County," he became noted chiefly as the defender of oleomargerin and the caretaker of the interests of the Chicago beef packers—in the latter capacity going to such an extent that he brought upon himself severe censure by the president. The farmers of his district are overwhelmingly Republican, yet the revolt among them is so widespread, the feeling against him so bitter, that his defeat now seems assured.

The two leading agricultural weeklies published in the state ("Rural New-Yorker" and "Country Gentleman") are doing their utmost to bring such a result about, and surely agriculture is not going to suffer by the elimination of the friend of oleomargerin and the beef packers from the list of national lawmakers and by the success of the good and clean man whose name (Peter A. Porter, once made a good record as chairman of the committee on agriculture of the New York State Assembly) will appear under the emblem of the cow.



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Benefits of a Bank Failure

A BANK failure is certainly deplorable at any time, and results in a shaking of public confidence that is difficult to restore; but in a farming community, if not every community, these financial crashes sometimes bring about good results in a proper direction. In the case of not a few of the banks that have brought a general disaster in the past few years, subsequent investigation has revealed the fact that good investments in real estate have often been ignored by the depositors that they might secure a comparatively high rate of interest at a bank. A bank is a proper business in which the farmer of moderate means may deposit money temporarily; but for permanent investment the man of small means should seek something more safe. On no venture at all questionable should the hard-working farmer hazard an amount of money so large that its loss would ruin or permanently cripple his business. Savings banks should be trusted with small amounts only; when a sufficient account has been saved it should be invested in some more permanent securities. The bank that offers an unusually high rate of interest must seek a more paying investment in order to realize a profit on handling the money, to say nothing of paying running expenses. At this time gilt-edged securities that pay these high rates are scarce; consequently bankers are often under a necessity of hazarding their (the people's) money on dangerous investments. An ordinary bank is not presumed to receive deposits that represent more than a relatively small part of any man's whole fortune; they are institutions for convenience and accommodation, not for permanent investment.

A northern Ohio bank, chartered for $25,000, and paying five per cent interest on deposits, three years ago failed for over a million dollars; this bank was located in a village of about six hundred inhabitants, and the depositors were largely farmers; several deposits in this bank were large enough with which to buy farms; many hard-working people, instead of investing in real estate, had been taking their money to this bank for many years. On walking over a piece of farming land in the immediate vicinity of this bank about the time of its failure, the writer was asked by the recent purchaser to give a fair estimate of the value of the land; upon making this estimate the writer was much surprised to find that the farm had been purchased for less than half of the amount, and that real estate in general was experiencing a period of depression. An investigation of the affairs of the defunct bank subsequent to its insolvency developed the fact that its affairs had been in a crooked condition for several years, and that the abnormally high rate offered to depositors had merely been an extraordinary expedient for securing cash with which to keep the affairs of the bank afloat. The very high rate should have excited the suspicion of the people, but a long period of apparently straight business on the part of the bank led them to believe that their money was being reinvested with great skill, which seemed to warrant the high rate of interest offered to depositors. They had neglected real estate as an investment, having allowed it to depreciate one half in value, while they submitted their hard-earned money for the machinations of deliberate defrauders. Lured by the promise of a high rate of interest, these depositors hazarded their principal on a financial scheme that was paying interest out of the deposits of new patrons, and covertly but frantically dependent upon the gullibility of the public to keep open its doors. The failure of this bank was a costly lesson to the depositors, but such things are sometimes necessary to reform the people's thought and recall them to a proper estimate of normal business dealing.

This article is not designed to shake people's confidence in banks, for the writer himself usually carries a small account at a bank for convenience; but the argument that the writer designs to impress upon the ordinary farmer of moderate means is that it is really an unsafe practise to intrust any relatively large part of his property to banks as a permanent arrangement. If this seems necessary, it has been found by some to be a more satisfactory method to divide the deposit between the two safest banks available; then, in case of the insolvency of either, the whole amount would not be involved. It may be that the writer will be called a "calamity howler" by some, but observation of actual cases has led to the above remarks. The purchase of real estate with care and good judgment seems like the most normal and safe avenue of investment for the farmer. Money earned by hard work should be put into investments of equal dignity, and the more hazardous undertakings in finance should be left to those investors of larger means who will feel less keenly a loss of the small part of their property invested, or risks should be resigned to those who, having earned their money in similar dealing, will regard a loss as something always to be counted upon as a part of their business.

Morally speaking, it is very laudable to have earned one's money in ways that are above question or reproach; but it is just as laudable to have invested that money in a secure place where it cannot be endangered by either the weakness or villainy of those having taken it in trust.

Geo. P. Williams.

* * *

Mr. Gladstone once said that he always found the advertising pages of an American paper intensely interesting. If you will look over the advertising pages of FARM AND FIRESIDE this issue you will find them the same way. Reading them may not make you as great as he was, but they are attractive. If you see anything you want, write for it.

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The President says that everybody should have a square deal. That is what we mean by guaranteeing you against loss by fraudulent advertisers. We investigate every firm that wants to use our paper, and unless they are honest and reliable, we refuse to let them insert an advertisement in this paper. If you will mention FARM AND FIRESIDE when writing to any of the firms, they will answer you immediately.

About Rural Affairs

Home Fruit-Canneries

JUST at this time, when the country around here is swamped with fruits which ripened "all in a heap" in consequence of the prolonged heat and drought, the subject of commercial home-canning seems of particular interest. Investigations made by some of our experiment stations show that there is a possibility of utilizing surplus tomatoes for commercial canning purposes, even in a small way, right at home. Everybody knows, however, that it is easier to can fruits and have the canned product keep in good condition than to can vegetables in a commercial way, and the time seems right for the consideration of the question whether it would not be advisable for larger growers of pears, peaches and perhaps other fruits to establish home fruit-canneries, and thus prevent waste and the demoralization of over-supplied markets.

Edwy B. Reid, who publishes a local paper in Michigan, reports to the "Michigan Farmer" that the fruit-growers of the Michigan fruit belt have already had some practical experience in this line, and in most instances had obtained quite satisfactory results. Mr. Reid says:

"When the market price begins falling these people begin canning their fruit, and thus receive a high market price for it the whole season. In this way they dispose of their surplus peaches, cherries and plums.

"At first thought one would think that a canning factory on the farm would be an impractical thing, but let us look into the matter a bit. The outlay of money is not large, as the machinery and cooking apparatus does not require a building larger than fifteen by thirty-five feet. The cooking is done in a large boiler set in masonry, similar to furnaces used in the making of maple sugar. About the only machinery used is the cherry-pitting machine, which is often run by a gasoline engine. A good cherry-pitting machine, run by a one-horse-power engine, will pit 100 crates of cherries per day, with one man attending it. When the cherries are canned they shrink one half, or one crate will make just eight quart cans of cherries. This proportion holds about true in respect to peaches and plums. After the fruit is pitted and cooked it is poured into the cans, and then the syrup is poured on. The cans are bought ready for the tops to be soldered on; that is, the tops have a thin rim of solder on them ready for the soldering-iron to be applied, which is in the form of an iron cylinder that just fits around the cover and melts the solder. This does away with any need of an experienced solderer.

"The farmers who have gone into canning their own fruit on the farm have opened a special market and receive very satisfactory prices for their goods. The cans are wrapped in a fancy label bearing the name of the grower of the fruit. In this way the brands put out by these men become known and a reputation is established. This is as essential when selling canned goods as when selling fruit in the basket, and even more so, as the fruit cannot be seen, and the fruit and the man who raises it are known by the label."

If conditions such as confront us in this vicinity, and according to reports received here, in various other localities, are to be the usual state of affairs, the remedy that seems to me most natural and feasible is the establishment and operation of home canneries and of home evaporators. The open market for perishable fruits should be preserved intact at all hazards.

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Home Fruit-Evaporator

The following extract from a letter received from W. D. C., of Alton, Illinois, throws some light on the true situation in many of our fruit-producing sections: "We have a forty-acre farm, about ten acres of which are in peaches, pears and apples. We always have much unsalable and damaged fruit. Would it pay us to invest in an evaporator? What price per bushel had I better accept for the raw fruit rather than to dry it? Peaches have usually brought us from forty cents to one dollar a bushel; but now they are overplentiful. One gets disgusted these hot days, chasing over town trying to sell on a market already oversupplied."

The salvation, it seems to me, must be via the elimination, from the markets, of the poor and damaged, and in fact, of all but really good fruit. Every bushel of trash that you make people buy by offering it at a small price (even then too high) has a tendency to lessen the demand and the price of really good fruit. Let the aim be to raise better stuff, not more of it. Do not sell the poor stuff at any price in the general market. And if you have enough fruit to keep an evaporator going, and find that evaporated fruits sell in your markets at anything like an acceptable and remunerative figure, utilize your inferior fruits and all your unsalable surplus by turning it into a good evaporated article rather than ruin your own markets for the fresh article.

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About Bone-Meal

A Virginia reader writes that he has the chance to collect quite a quantity of old dry bones, perhaps several tons, and could have them ground in a regular bone mill by hauling something like twenty miles. What he would like to know is, how this bone-meal will compare with the bone-meal to be found on the general market. He writes:

"I have some farm land that has been pretty badly run down by bad managing, and I am anxious to improve it by getting it into a good grass sod to be plowed under. I have had excellent results on portions of this land by sowing wheat and timothy in the fall, with a liberal supply of bone-meal mixed with some special wheat fertilizer, and during the winter broadcasting about two hundred pounds of bone-meal with about three times that much wood-ashes per acre; then in May giving it a good harrowing, taking care to follow the way the land was drilled, and then sowing clover liberally. The land is of a sandy nature, and in places mixed with white gravel; loose, easily plowed and not inclined to bake."

First as to the bones, their value for immediate effect, of course, depends on the degree of fineness. If the old bones are ground into a fine meal or dust, they will be as valuable and quickly effective as the bone-meals of like fineness on the market, and probably worth upward of $30 per ton. From this, the inquirer may draw his own conclusions as to the question whether it will pay him to collect and haul the bones to the mill. Under the prevailing conditions, his task of improving his land and making good crops seems to be very simple The use of bone-meal and ashes, the former to supply the needed phosphoric acid—needed especially for the production of grain—and the latter to supply especially the necessary potash, will enable him to grow big crops of clover, and the clover rotation gives him the key to success. In the absence of wood-ashes muriate of potash may be used. Usually the quantity of plant foods applied has more to do with the results than the exact manner or time of making the applications. I would simplify matters by applying these chemical substances in the fall on the plowed ground, say at the rate of 200 pounds of bone-meal and several times that quantity of wood-ashes, or one hundred pounds of muriate of potash per acre.

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Improvement by Elimination

During the past summer on my frequent wanderings through the orchard, it was my practise to stop at the trees whenever I saw defective or worm-eaten specimens of pears or apples to pick them off and throw them away. This proceeding resulted in a general improvement of the entire crop. My Bartletts were larger, cleaner and better than ever. By letting "the bad die young," the good specimens had all the chance, and much waste of effort was prevented.

This reminds me that the road to most of the comparative perfection in farm products leads through elimination, and we can do very effective work in this way. By the elimination of weeds, of inferior specimens in thinning, of poor seed and poor plants in planting, we eliminate most of the chances of failure and of the production of rubbish. We have hardly paid enough attention to this eliminating process for the betterment of our crops. This year, for instance, I have found that the elimination (rejection) of poor seed potatoes and, of course, selection of good seed in their place, has increased the potato crop fully thirty per cent.

When we carry this same principle of elimination into other lines of farming, and dispose of the scrub hens that barely lay seventy-five eggs a year, and the cows that give but little or poor milk, and the unprofitable mongrels of no particular breed in any kind of stock, then we will be on the sure road to a more satisfactory outcome generally, and soon see loss turned into profit.

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Profitable Pecan Groves

The pecan is a valuable tree for timber, but more valuable for its fruit. L. F. W., of Carlyle, Illinois, writes: "I bought my present farm of one hundred and sixty acres thirty-eight years ago. About twenty acres of it, the richest part, is upper bottom land. On it I found over one hundred young pecan trees, the biggest about three inches in diameter. I cut these all down except five trees which commenced bearing about twenty years ago. Then I discovered that I had made a mistake. I use the land for pasture and the trees are not in the way. Three years ago I kept half of the nuts from one of the trees for my twenty-five grandchildren, and sold the other half, clearing me $9.80. This nut is in all respects like the pecan nut recently mentioned in FARM AND FIRESIDE. Five years ago I planted a separate piece of ground with sixty seedlings of this tree. They now look fine, but it will take ten years more before they come into full bearing. I have made a provision in my will reserving these trees for the children of the family."

This is an example worthy of imitation.

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The Business Early Potato

The genuine Irish Cobbler or Eureka undoubtedly stands head and shoulders above any other early potato in point of vigor and productiveness, besides being by a day or two the earliest, and the most disease-resistant of any of that class. I consider it very likely that this potato will come into general cultivation as the "business early potato," and crowd the Ohio, the Hebron and the Triumph, and possibly even Noroton or Quick Lunch out of our markets, and out of favor with home-growers.

Mr. White, of New Jersey, my former neighbor, and a sharp observer, holds the same opinion with me about the great value of this comparatively new sort. He gives it as one of the reasons that no more "fuss" has been made over this sort by its introducers or the general public since, that there is a spurious sort in the trade which is not nearly so good as the genuine. I believe he got his seed from a western New York potato grower, and cannot say too much in its favor. I got the Eureka from Philadelphia, and I am sure that it is as good as the genuine Irish Cobbler. The manager of seed farms in central New Jersey told me that the only difference between the Eureka and the genuine Irish Cobbler he could find was in the depth of the eyes, those of the Cobbler being slightly deeper. Sometimes we are deceived by apparent differences of this kind between a few specimens, or between some lots of specimens, especially when we look for differences.

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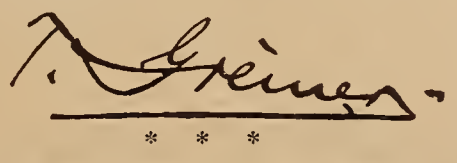
Wireworms

A reader inquires about the best means of getting rid of the wireworms which have almost ruined his potatoes. There is only one way that I know of which promises permanently satisfactory results in checking the destructive work of wireworms. This is by plowing and otherwise working the soil late in the fall; in fact, just before settled cold weather, so as to break up the safe retreats of this enemy and leave the pupæ an easy prey to birds or the winter's cold.



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Salient Farm Notes

About Short Rotation Plans

IT IS comparatively easy to figure out a nice easy method of procedure on the farm, but when one attempts to put the method into practise the difficulties he meets with very often are a surprise to him. "R. S.," of Iowa, figures out a rotation on the quick-meal plan, and asks what's the matter with it. He says he will put a forty-acre field in corn next spring, cultivate it well to keep all weeds and grass out, then in August sow clover in the corn, having two boys run small A harrows between the rows to harrow in the seed, cut the corn, and when the ground is frozen in winter smash the stubs with a heavy pole drawn by three horses. The next summer cut the first crop of clover for hay, the second crop for seed, turn the sod down and sow winter wheat. After wheat, corn, and repeat the clover performance. If this could be done as easily as it can be thought out farming would be mere fun. When a person gets a theory well established in his mind it is easier to tell him to try it on a limited scale than to attempt to show him why it is impractical. A trial does not cost much, and it is so much more convincing than argument that I would suggest to "R. S." that he try one or two acres and see how it works. I think he will arrive at a satisfactory conclusion in one season.

"C. B. G.," Virginia, has a theory somewhat similar. His plan is to grow a crop of wheat, plow immediately after harvest and pulverize and sow clover. Cut a crop of hay the following season, allow the second growth to seed then turn it under and sow wheat again, thus alternating wheat and clover. In the first place I hardly think he would secure a good catch of clover, although he might one season in five or six. A severe winter would kill the clover outright. A mild winter, with its alternating freezing and thawing, would throw the clover out of the ground. I have seen this plan tried many times, and never knew it to succeed. Owners of land generally seem to have a holy horror of giving the land a short rest. If a man sows clover or grass seed in the spring to make either a pasture or meadow, he wants to sow oats or some other crop with it, so the land will produce something while the grass is getting started. Very often his oats or other crop ruins the grass, taking up the moisture and fertility it needs, and he fails to secure a full stand and is obliged to turn it down and try again, losing all the seed he has sown. The best stands of clover I have ever seen were secured by preparing the soil for clover and sowing the seed in the spring by itself. I have seen about equal success by preparing the land by plowing in the fall, disking well in the spring, and sowing the seed right after the disk, and by plowing shallow in the spring, harrowing smooth and sowing the seed right after the harrow, and either drawing a brush-harrow over it or a smoothing-harrow with the teeth turned back so that the frame touches the ground. The former method seems to be a little the best, because one can disk land much faster than he can plow it, and the work must be done quickly, for the conditions very often are not favorable for more than two to five days. Watch for the first opportunity to get the seed in, and that is just as early as the soil can be run over with a disk. In some localities it may not be advisable to plow in the fall and leave the soil naked all winter. In such cases it would do to plow earlier and seed lightly with oats or millet. Winter would kill the plants and they would protect the soil to a considerable extent through the winter and not be in the way in spring. It will be necessary to clip the weeds that are certain to come up. Set the cutter-bar of the mower at least two inches high and run over the field as often as necessary to keep the weeds down. The following year there will be a grand growth of clover to cut for hay, and, if the season is at all favorable, a crop of seed that will pay good rent on the land for two years.

A farmer living not far from me has just thrashed eighty-five bushels of seed from thirty-five acres of clover that was seeded last year by plowing in the fall and disking in the spring. The value of this crop at present market prices is close to one thousand dollars. Yet there are many farmers close about who have been trying for years to seed their land to clover and have failed, because they persist in sticking to the old practise of seeding with another crop. One should adopt the best methods, and then not be afraid of the seed.

◈

Best Use of Cow-Peas

In Virginia and other sections in that latitude farmers use cow-peas much more than clover to get nitrogen in the soil. But I noticed that many farmers either made hay from the pea-vines or pastured them off. They would get some nitrogen into the soil, but very little humus. I often thought it would pay them much better to turn the entire growth of pea-vines down into the soil than to cut them for hay, especially if the land was lacking in humus. I noticed one good farmer cut a part of his peas for hay and coated that part of the field with manure. Pigs were turned into the rest of the field to eat the peas, and the vines were to be turned under.

Fred Grundy

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Fall Planting of Apple Trees

THERE is some controversy as to the planting of apple trees in the fall. My experience in the fruit-growing business teaches me that the most appropriate time to plant an apple orchard is in the fall, from about the last of October till the middle of November, when the ground is loose and moist enough to work well, but not wet and sticky.

At this time the growing season is over, and the trees will hardly be injured at all by the change from nursery to orchard. The roots that have been cut in digging and preparing for re-setting will callous over, and the ground will settle firmly about the roots, and in the spring the trees are ready to awaken into new life without a check to their growth. I have found that good, thrifty one-year-old trees are the best to plant, because they get damaged less if shipped from a distant nursery, are most sure to live, are quicker and easier to set, contain more fibrous roots than older trees, and it is not necessary to cut the top back. Let the top grow straight up, forming a beautiful top without numerous forks so objectionable to trees that have been headed back, as has to be done with three-year-old trees to make the top correspond with the roots that have been cut off.

In setting the trees they should be put at least twenty-four feet each way and about two or three inches deeper than they were grown in the nursery row. It is very important that every root is put in its natural position, with mellow earth worked well around it. A mound of earth should be thrown up around the trunk of each tree, and a protection of corn-stalks, lath or paper be placed around the body to keep rabbits from gnawing them.

Another requisite is to watch the trees, and when you see an open space around them, caused by the wind moving the trees, keep that filled up and well packed. This should always be looked after before winter begins. You will very likely find a space from one half to two inches. The rain and snow fills this space, and freezing there, always injures the trees more or less. I am of the opinion that more young trees die this way than any other, and I believe that this is the cause of blight to a certain extent.

In the spring a leguminous crop of some kind should be sown between the trees. I prefer cow-peas. If cow-peas are sown they should be sown in rows, in order to cultivate the orchard. However, such crops as corn, potatoes, etc., are excellent for the first season. The trees must be kept well cultivated until they are at least seven years old. If the first season after the trees are planted is damp they should be cultivated pretty deep; but if it should be dry three inches will be deep enough to cultivate. Make it a rule to stir the soil at least every two weeks.

After the trees have been set one season watch every tree and do not allow them to grow forks. Cut off all forks whenever you see them forming. If any of the branches are inclined to grow too fast they must be cut back, and whenever you notice one side of the tree inclined to grow too fast and is likely to get out of balance, cut it back to suit the head of the tree. Aim to keep a spiral stem, and have the branches start out horizontally. After the trees begin to bear, cropping should cease, but cultivation continued as long as the trees continue to grow. The great mistake that some make is in keeping their orchards in a blue-grass sod. I have found that when an orchard is allowed to remain in grass without being cultivated through the growing season that the trees are checked in their growth and easily succumb to drought.

Illinois. WM. H. UNDERWOOD.

Science and Lightning-Rods

Electrical science does not sustain the main argument of your correspondent, Mr. Frey, in the issue of August 15th. He is practically correct as to the relative conductivity of the metals—silver, copper and iron. But, in the case of lightning, it is not a question of relative conductivity at all. His advocacy of the expensive metal, copper, is based upon a mistaken assumption as to just the part the rod plays on a house. Lightning-rods are not used for the purpose of conducting the charge down from the cloud to the ground as is commonly supposed, but the direct reverse, namely, to dissipate the charge in the ground, thus preventing the discharge from the cloud. The scientific explanation of lightning is this: When the charge in a cloud rises, it attracts an equal and opposite charge in the ground beneath the cloud. The charges both rise in potential until they become too great for the intervening air to keep apart. Then the air breaks down and the lightning bolt which is only a large spark, passes from cloud to ground, discharging both. Of course, whatever is in the way, be it house, barn, animal or tree, is "struck." Now, as every electrician knows, no charge will accumulate on any body having sharp points, because the points permit it to escape like water from a leaky barrel. This explains why electric machines always have all rods tipped with large smooth balls. With a little wax fix a needle to one of the balls and it is impossible to charge the machine or to get a spark, because the electricity escapes off the sharp point quietly instead of accumulating on the conductor. Hold a lighted candle near the point and the escaping electricity will blow it out. Now the use of lightning-rods is simply the practical application of this principle. They form a series of sharp points, connected with the ground from which the rising charge in the ground escapes quietly as fast as it is formed and quietly discharges to the cloud above, so preventing a sudden disruptive discharge which would be dangerous. Let me quote from Millikan and Gale's Physics, page 250: "It will be seen therefore that lightning-rods protect buildings, not because they conduct the lightning to earth, but because they prevent the formation of powerful charges in the neighborhood of the buildings on which they are placed."

Now regarding the supposed superiority of copper let me quote from Barker's Great Physics, page 626:

"Rapidly alternating discharges" (which is the character of lightning) "confine themselves to a thin outer layer of the conductor—*thinner in the case of iron than of copper.* Hence surface rather than cross section is of importance in a lightning-conductor, and *iron is a better material than copper.*"

Again: "Tall pointed rods are not as efficient as a number of smaller ones along the ridge of a roof. For an ordinary house the cheapest way to protect it is to run common galvanized-iron telegraph wire up all corners, along all ridges and eaves, and over all chimneys, taking these wires down to the earth in several places. . ." Let any farmer look at the protection electric companies give their telephone poles. It is the same. Now this article may not promote the business of the rod agent selling expensive copper rods. But the method here described by Professor Barker will save the farmer great expense, and at the same time give him all the protection any human device can.

PROF. G. J. KYLE.

McMinnville College, Oregon.

Farmers' Correspondence Club

"Moonshine"

Mrs. J. J. Garrett, of Kansas, objects to my article in the August 1st FARM AND FIRESIDE on planting crops in the moon, but I notice she puts a good deal of emphasis on "good soil, plenty of manure, thorough cultivation and rain along as we need it." Under such conditions the moon's influence would have to be evil indeed to prevent a good crop.

We plant when we are ready, and the soil and weather are in condition without any regard to the phase of the moon, "old," "new" or "full," as the case may be. It's sunshine, not moonshine, that we put our faith in. Sunshine, rain, good seed, good soil and plenty of cultivation. If the moon has ever exerted any evil influence we have not noticed it. Our potatoes do not all grow to tops, nor our corn and beans to roots, but yield abundantly.

I think I've heard before that the moon was the principal cause of the tides on the ocean, but if one phase of the moon acts with more power than the others it is news to me. The tides are caused only by the pull which the large body of the moon exerts on the waters and this pull is exerted just as strongly on the land also.

If, as Mrs. G. claims, it is moonshine that causes her plants to grow and blossom better, why is it not during the full, instead of the new moon, as she claims? The light is so much brighter during the full moon that it seems to me things ought to grow best then if the moon is so all-powerful.

It is necessary that all root crops have a vigorous, healthy top, in order that they may produce tubers, or roots below ground. The tops must be produced first, and if the new moon will cause the tops to grow so much better why not plant then? If potatoes are planted in the old of the moon the new tubers do not begin to form until long after the moon has become new, full, and old again. If they are planted during the new or full moon they will yet, in due season, get their full quota of all the moon's changes, as much of one as of the others, so why should it matter when the seed is placed in the ground, provided the soil is in condition to receive it.

If the people who believe in the influence of the moon upon the crops also have a firm belief in good soil well prepared, and thorough cultivation, and practise what they believe, then a little harmless superstition will not matter to any great extent. Nature does not appear to take any regard to the moon's phases, for the trees in spring put forth leaves at the call of the sun and rain and the blossoms open, not at the call of the moon, but the sun, and in due time we have fruit—or "nothing but leaves."

When we know all the causes we will doubtless discover that the success or failure of our crops is due not to the queen of night, but to soil conditions, seed, sunshine, moisture and thorough cultivation. In growing good crops, either above or below the ground, I am willing to pit the hoe and the cultivator against the moon at all seasons.

Michigan. APOLLOS LONG.

Planting a Winter Garden

Half of what a man gets out of life comes from the love and care of family, his garden, and flower yard. When he neglects one he is likely to forget something that is essential to human happiness. The winter, especially in the South, affords a lot of opportunities for the farmer to do something along this line. The farm-work is not pressing, and he has more time to devote to it than in the summer when the crops require nearly all his attention. Away back yonder in the old days it was an easy matter to find flowers blooming in almost every yard, but now, of all of them, I only know one place where I could go and get a flower every day in the year.

It means that surroundings will be beautified if the farmers will take this matter in hand and give it a little study. The attractiveness of the farm home is the greatest thing to be done toward bringing the country forward now. We have almost every convenience in the way of utilities that the city has. The gasoline engine has given us the water supply, the rural mail brings us the news, the telephone puts us in immediate touch with the world. Now it only remains for the farmers to go to work and bring up the standard of farm beauty.

This age has given us so many new flowers that it is an easy matter to find something beautiful that all of us can grow. What is true of the flowers is also true of winter vegetables.

Dwarf plants of different types can be grown in the hothouse or conservatory with much pleasure and profit after one once gets started. Winter radishes can be grown in miniature beds. A stalk or so of cayenne pepper can be grown in pots, and it will grow on for years. During the winter it will be fine to have the little green peppers fresh from the stalk, and in the flowers it will be attractive with its red and brown and green. It will be useful as well as ornamental, too. Then a little bit of lettuce will do well also.

These are only a few of the things that come up in this line, and anyone will derive much pleasure and profit from pursuing such a course, and perchance will bring happiness to many others who may be induced to take up a similar course.

Georgia. J. C. MCAULIFFE.

Bird Friends of the Farmer

"Crack!" "Bang!"

In every direction the sharp snap of the shotgun is heard. Every discharge of these pieces brings a feeling of pain to my heart, for I know that one more bird has laid down its life, not because it has done any wrong, but to satisfy the passion of some man for sport.

Sport, did I say? Yes, that is what the hunters call it; and yet, is it not a strange kind of sport that calls for the suffering and death of a poor little feathered creature that never did anyone harm, but which, on the contrary has worked all its life long to help and befriend the very man who now takes its life? By law we give license for this wholesale killing of the farmer's friend, the bird.

Stop long enough to read this extract from a news despatch published in England.

"Fruit and hops are chiefly affected among the crops, and many orchards and fields in the great growing districts of Worcestershire and Kent are suffering from the worst plague known for many years past. In the former district the hops are black with aphides, or green fly, which have attacked the crop in devastating numbers everywhere. . . . The tent caterpillar and codling-moth are swarming on the apple trees, while scarcely a currant bush is to be found which does not show signs of the ravages of the currant aphis. The turnip fly, the wire-worm and the larvæ of the winter-moth are ravaging the root crops, vast numbers of the tiny corn thrip and the eelworm are striving to work their worst on the cereals, the onion fly-grub has made an onslaught on its particular vegetable, the ghost-fly is attacking the tomatoes, and, in short, nothing seems to have escaped the extraordinary swarm of pests except the broad beans."

What is true in England is true on perhaps fully as large a scale of the crops in our own country. The Agricultural Department at Washington has been conducting for a number of years a thorough examination of the stomachs of the birds of the United States to see what they live on. The result in showing the immense numbers of insect and weed pests destroyed by these feathered friends is decidedly interesting. From these investigations it is estimated that not less than 3,000,000 bushels of weed seeds were disposed of by tree sparrows in one state in one single season!

And yet, millions of birds die a tragic death by violence every year. Does it not seem strange that the farmer should not be the best friend the birds have? Instead of that he is often quite indifferent to their interests, being aroused to lift a hand in their defense only when compelled to do so by the laws of the state.

By most farmers the crow is looked upon as an enemy. He does do much injury to the corn crop of many states. Every spring there is a sharp fight between the farmer and the crow to see whether the corn crop shall make a fair stand or whether the crow shall destroy the seed so that the crop will fail. For three or four weeks the battle goes on unremittingly. The farmer fills his fields with scarecrows that the crow laughs at, and resorts to many other devices that are little better than worthless, with the result that the farmer pronounces the crow an unmitigated nuisance.

All this time, while the crow is levying his tax on the corn-fields he is in other fields doing splendid work to clear up insect pests that would without his efforts destroy ten times as much as he does. We are learning how best to fight the crow now. It is the practise of some of the best farmers to feed the crow by scattering poor corn all over the field so that he may get it and go away with his appetite satisfied. Others drive him away by putting tar on the seed they plant. He does not like that very well and soon leaves the field. Still others hire boys to watch their fields during the few days when the crow is most likely to work injury to the seed.

But there are many ways in which we may show our appreciation of what the birds do for us. We may build boxes for them to nest in. The other day I saw a number of these snug little homes fastened on the top and sides of a little country wood-shed near a schoolhouse. I was interested enough to get out of my carriage and look into some of these. I found them partly filled with straw and fine grass, ready for the coming of the birds. They had made these little boxes and put them up to invite their friends to come again in the springtime.

Then, we may encourage the birds by favoring laws that prevent their being slain under any pretext. In our own state of New York it seems to me we have had more birds the past season than for many years before. I think this has been due largely to the strict enforcement of the game laws of the state. The department which has had this work in hand has made stringent rulings governing the killing of birds and the wearing or sale of their feathers. Early in the season many violations of the state laws were reported, but after the commissioner took the matter in hand and directed the positive enforcement of the laws, it stopped short.

And then, as winter is a hard time for such birds as stay with us, may we not share our crumbs with them? Think what our farms would soon be without the birds! Take them away and it would not be long before our crops would be ruined by the myriad insect pests that have so multiplied in the past few years. And the feature which relates to weed seeds is not to be overlooked. Weeds are increasing all over the country. The birds will help us to keep these in check.

New York. EDGAR L. VINCENT.

Review of the Farm Press

The Value of Good and Poor Cows

In the "Practical Farmer," Mr. T .B. Terry makes some good points on the value of a good cow and a poor one. He says:

A reader, living in one of the great dairy states of the West, writes of picking up a choice dairy of grade Holstein cows that will average at least 7,500 pounds of milk each in a year. He paid from $50 to $60 a head for them. He writes us: "People parted with their best cows, as that is a large price here." Well, he is one of our folks, and posted. I hope he didn't buy of any of our readers; don't believe he did. Certainly he made a far better bargain than did the people who let their best cows go at this price. I have been at institutes in New York a good deal, and know how it is in the dairy sections of this great state. I would smile to see anyone get the chance to pick out the best cows in the dairy of any reading, progressive institute-attending farmer at any price he would care to pay.

Such a thing could be done once, but the days of such ignorance are past. Common scrub dairies average, say 3,000 to 4,000 pounds of milk per cow in a year. This perhaps just about pays the actual cost of keeping the cows. At any rate the profit in keeping such cows, or keeping cows so they do no better, is exceedingly small. Double the yield of milk, and without much more cost of keep you have a fine profit.

Say the price of milk is one cent a pound. Now a common cow, giving, say 3,500 pounds of milk in a year, might pay for her keep and perhaps a little more. What is such a cow worth? Surely not very much above beef prices. She is not making her owner any money to speak of. But how about a cow giving 7,500 pounds of milk in a year? Probably about 4,000 pounds of that will be profit. We won't say anything about the higher price of milk in winter. At summer prices the year around she is bringing her owner about $40 profit; $75 income and over half of it clear profit. How much will that pay a good interest on, an interest high enough to cover depreciation, etc.? About $300, wouldn't it? Is not the cow really worth, then, about that sum.

As with rich land and poor land, so with good cows and poor ones, the best rarely sell for what they are really worth from a strictly business standpoint. I am truly sorry for the dairymen who let a man pick out such cows at $50 or $60 each. He sold the money-makers of the herd to keep those, probably, which just about pay their board.

Permanent Clover and Timothy Meadows

Answering a correspondent who wishes to know whether it is possible to maintain a permanent meadow of clover and timothy without reseeding, "Wallaces' Farmer" says:

With the proper management this can be done. If the farmer is starting out to secure a permanent clover and timothy meadow he should first go to some care and expense in thoroughly preparing the seed bed and securing a full and complete stand. We would give a full seeding of clover and timothy the first year, and the next spring would add about half a seeding of clover. For instance, if the meadow was seeded down in 1906, a good stand secured which survived through the summer and winter following, we would expect, with a seeding of eight pounds of clover and twelve pounds of timothy, to have the first cutting in 1907 apparently two thirds clover and, if there was no subsequent seeding, a hay crop in 1908 of apparently two thirds timothy and one-third clover.

Why is there so much more clover than timothy in the first cutting, 1907? Simply because the clover being the rankest grower, did not permit the timothy to have its normal development. Fortunately, timothy stands a good deal of shading, and hence it is not uncommon to see a field which is apparently all clover in June throw up a splendid aftermath of timothy in August or September. Half, at least, of the clover may be expected to disappear during the winter of 1907; not because it is winterkilled, but because the plants have fulfilled their mission—that of producing seed—and perish. Those that remain will be mainly the growth of the hard-shelled seeds which did not come up in the spring of 1906, but appeared in 1907; and this is the reason why we would advise a light reseeding of clover in the spring of that year.

In this way there will be a proper balance between the clover and timothy, and if the aftermath of clover is allowed to grow rather long and form some seed before it is pastured off this reseeding will maintain the stand on good land, adapted to these grasses, indefinitely. We kept this up for eleven years once on a piece of good land, using mammoth clover, red clover, and orchard grass, and in these eleven years took two crops of seed in addition to the hay. The proportions were somewhat variable, as we did not reseed. Some years the clover would maintain the ascendancy; other years the timothy. The orchard grass maintained its stand throughout all these years.

Truth About Ginseng Culture

In the "Rural New-Yorker," W. M. Evans gives an interesting account of his visit to three ginseng plantations as follows:

Scattered throughout southern central New York and northeastern Pennsylvania are a considerable number of ginseng plantations of greater or less size. I recently visited three of these, one of which represents an investment of several thousand dollars. These beds have now been

GANG PLOW TURNING FOUR ACRES A DAY

planted four or five years, and the growers are just beginning to get returns in the form of salable roots and seed, and are now able to tell something definite of their prospects. Before telling of the present condition of these plantations, it may be well to give a short description of the way in which a ginseng plantation is started. First, shade must be provided. This is usually obtained by placing laths approximately two inches wide, one or one and one half inches apart, supporting these on posts high enough so that one may walk under the covering. The roots are planted in beds four to six feet wide, of any convenient length, with paths about eighteen inches wide between them. To make conditions as nearly natural as possible, from two to three inches of leaf mold from the forest is placed on the surface of the bed. The plants may be started either from seed or by transplanting young wild roots from the forest. In the smaller plantations the initial cost for the covering and beds may be but a small cash outlay, the principal cost being the time required; the plants and seed may be found wild in the woods. In the larger establishments, however, there is a very heavy expense incurred for the covering, beds and plants. The first plantation which I visited was perhaps one eighth of an acre in extent, only one half of which was occupied by planted beds. When I was there, August 22d, I found that all of the beds had been allowed to grow up with weeds. Late in June a disease had attacked the tops of the plants, and not a green ginseng leaf remained. The roots still seemed healthy, and as nearly all had formed buds for next year's stalks, it is probable that growth will be resumed again next spring as usual. But as all this year's seed crop had been destroyed, as well as a large proportion of the root growth, the owners were entirely discouraged. They had made their first sale last year, having sold enough ginseng roots at $5 a pound to make a total of $37. This fall they will dig and sell what roots remain, and will use the ginseng enclosure for a place to raise poultry.

The third plantation which I visited is one of the largest in this part of the state. There are three enclosures, the largest of which occupies nearly one acre of ground, and represents an investment of $5,000. The ginseng plants here had also been destroyed by "the blight" late in June. Although this caused a loss of all the seed crop and of a part of the season's root growth, the owner now expects that a healthy growth will be renewed next spring, and hopes that the disease will be less severe in its attack next year. Last fall 100 pounds of dried roots were harvested from some of the older beds, which must have sold for at least $500. This summer six of the beds were dug up and a yield of 250 pounds of green roots were obtained, which is equivalent to about 75 or eighty pounds of dried roots. As there are approximately 75 beds in this enclosure, an estimate may be made of the total number of pounds of dried ginseng roots which should be harvested when all of the plants have reached an age of five years. It may be stated here that the growth of ginseng under cultivation is much more rapid, and much larger roots are obtained than is usual under natural conditions.

In regard to the future of the ginseng industry, there are several factors to be taken into consideration. Three or four years ago, when large plantings were being made, the greatest profit from a mature ginseng bed was derived from the sale of seed, which sold for one cent each, or about $80 per pound. In establishing the large plantation described the owner purchased at one time 20 pounds of seed at $80 per pound. At the present time, when many of the ginseng plantations established a few years ago are producing seed, and the demand for it has decreased, the seed sells for a much less price than formerly, and is evidently not now a large source of profit. As large quantities of the cultivated roots are now being sold in the market, dealers are discriminating against them in favor of the wild roots, and it seems likely that the price, which is lower than two years ago, may decline still more.

Selecting Cattle for Feeding

In the "National Stockman and Farmer," L. W. Lightly gives the following observations on the selection of cattle for feeding:

Just now hundreds of farmers are putting in small bunches of cattle for feeding, many to my knowledge who formerly kept milk cows, but failing to cope with the present labor problem, sold their cows, and now essay to turn their feed into beef during the winter months. To them I would like to say, the miserable scrub animal usually charges more for the beef produced than it can be sold for. It is a losing factor in the stable, besides being a source of depression and discouragement to everybody on the place. I have had occasion to study this matter practically during the last few years, and I find that the old experienced feeders will not as a rule buy until they can get well-bred, well-built, thrifty and fairly uniform animals, while many of the new comers consider only the price, and with them a steer is a steer.

Visiting feeders last spring, one had a stable, and in another Herefords and bunch of high-grade Shorthorns in one Angus. A cattle scale by the side of the stable told the weekly gains of the bunches and some individuals, something about the value of different feeds, and many other facts I would consider indispensable to the feeder. A clock was in the feeding alley to tell the time for feeding and watering, and the scale proved that the clock and the heeding of its admonitions put money into the owner's pocket. Success seemed to be written on the countenances of the owner, the attendant, and even the animals. One of the delights of my life is to inspect a fine, uniform herd of high-bred dairy cattle, and my pleasure is lessened but little if it happens to be a bunch of beef cattle answering to the same description. Who is the young man that would not delight in caring for such stock?

My next visit was to a cross-fields neighbor, who also tried to market his corn and labor by way of the beef market. He had purchased the lowest priced fagenders in the market. Some refused to eat enough to make gains; others would eat, but failed to utilize the feed and looked thin; some made fair progress, but the whole outlook was depressing.

After selling, the farmers kindly gave me the figures to determine the results of the winter's operations. No. 1 realized market price for his corn, interest on investments and other expenses, including the wages of the attendant, and had a little profit besides. No. 2 realized for his corn two cents less than market price, and had a large pile of manure to satisfy all other claims. His seventeen-year-old son "swore a blue streak" and went to town, and has been working in the shop ever since. Here is an actual concrete, and I am sorry to say, a typical example that could be duplicated too often.

Cider-Making

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large pans, consisting of wooden sides and copper bottoms, and boiled till all impurities and some of the water are driven off. Then about one fifth of cut apples are added and the mixture boiled down from four to six gallons into one, according to the taste of the one having it made and the length of time it is intended to be kept. The stronger it is boiled down the longer it will keep, but by too much evaporation the butter becomes very thick, so thick that it will stand alone like stiff fruit jelly. It has a better flavor when cooked to the consistency of thick cream.

When apple-butter is made thin; that is, only a few gallons of cider and apples being cooked into one of butter, it should be sealed in jars for safe keeping. If, however, it is cooked down strong, it can be safely kept in either large or small jars from a gallon up, with only a tight covering of paper or cloth to exclude dust. In this way it will keep for two or three years.

With the same process peach, plum and and other fruit butter can be made. Peach-butter is claimed by many to be superior to apple-butter. Peach-butter is made of apple cider with peaches for thickening, and plum butter is made in like manner with plums for thickening. The cooking process is the same for all, and the keeping qualities similar.

Fruit butter-making requires considerable work. There is the gathering of the fruit from the orchard, preparing the thickening for the cider, and taking them to the mill. When in the pan for cooking, the cider with the first boiling must be skimmed, as impurities rise to the top. After the thickening is put in, and reboiling begins, the butter must be carefully and constantly stirred. The stirring paddle must reach and pass over every inch of the copper-bottomed surface of the pan to prevent scorching, and the fire must be watched to prevent the contents from boiling over. With a hot August or September day, together with the heat of the furnace and steam from the cooking butter, the position of the apple-butter maker is not by any means an enviable one.

Yet with all the work and inconvenience of conditions, "cider and butter making" in many localities is a sort of holiday affair. With some the whole family attends, wife and husband perched upon the high spring seat, and children tumbled upon the deep load of round apples among jars, jugs, tubs and barrels, all going to have a good time, and bearing home enough apple or peach butter in stone jars to last a whole year, and cider for vinegar to keep and to sell. One man expressed the sentiment that he would not care to live if he could not have an orchard and get to take the apples to the cider-mill.

Gardening

Late Cabbages a Failure

OUR late cabbages and cauliflowers are about as near a complete failure as I have ever seen. But we have had practically no rain since early in July, and the ground has been parched and dry for many weeks, right during the season when we expected the cabbages and cauliflowers to head. The crop of green worms, which at first seemed to be very slim, has increased amazingly. The air on these sunshiny days seems thick with the white butterflies which flit over the cabbage patch and deposit their eggs for more mischief. An occasional spraying with whaleoil-soap solution, however, makes an end for awhile, to the worms and their mischief; but in order to make a crop, moderate at that, of late cabbages, we would have to irrigate if heavy rains do not come soon.

The Tomatoes

The early tomatoes of the Earliana type have now all ripened or rotted. Even Chalk's Early Jewel has given out. But we have plenty of tomatoes on our Nuevo and Tenderloin vines, and indeed very good ones. Tomatoes were of especially fine quality all season long, owing to the warm and dry weather. Even now, since we have come very close to a killing frost (September 24th to 25th), the cooked or raw tomatoes, fresh from the field, have a good and rich taste. Last year I would hardly eat a dish of cooked tomatoes, they were so poor in quality. And we threw all our canned ones away for the same reason. The hot summer has been especially favorable for tomatoes, and made the quality exceptionally good. Nuevo is of the Honor Bright type; plants, however, are of the strong upright growth and the leaf like that of the "Potato Leaf," Fordhook Fancy and Centennial character, only inclined to be yellowish, like Honor Bright. I do not find it early, but it is quite productive, and the specimens remarkably even in size.

The early tomatoes of ten or fifteen years ago were mostly watery and of poor quality. We now have among them some that are about as good and solid as any of the later sorts. Earliana, Maule's Earliest and some others of that class have been greatly improved in this respect over the Ruby, Leader, Atlantic Prize and others of earlier days. Yet we must not think that we can now rest on our laurels. I have this year carefully selected seed from the product of some plants in my patch for quality and solidity. There seems to be yet room for improvement.

For Bunching Onions

As usual I have sowed a patch of Silverskin (White Portugal) onions early in August. The plants have had a hard struggle against heat and drought, and are now much smaller than I have had them in former years at this time. Weeds also have taken possession of the ground during my absence for a week or two; but fortunately these weeds are mostly purslane and others that will soon be killed by frost. I let them go now and do not worry about them. In a few weeks the bed will be as clean as a floor, nothing being left alive on it but the onion plants. These may yet grow to fairly good size before winter.

My Welsh onions were planted in July, from seed then just harvested from the old patch, and have made a strong growth, promising a full crop of earliest green onions for next April. I shall probably put a good mulch of fine horse manure between the rows. They have never yet suffered from winterkill, and always proved a reliable, very salable, and very profitable crop. Old plants produce seed very freely. I have harvested nearly twenty pounds of nice water-cleaned seed from one row scarcely three hundred feet long.

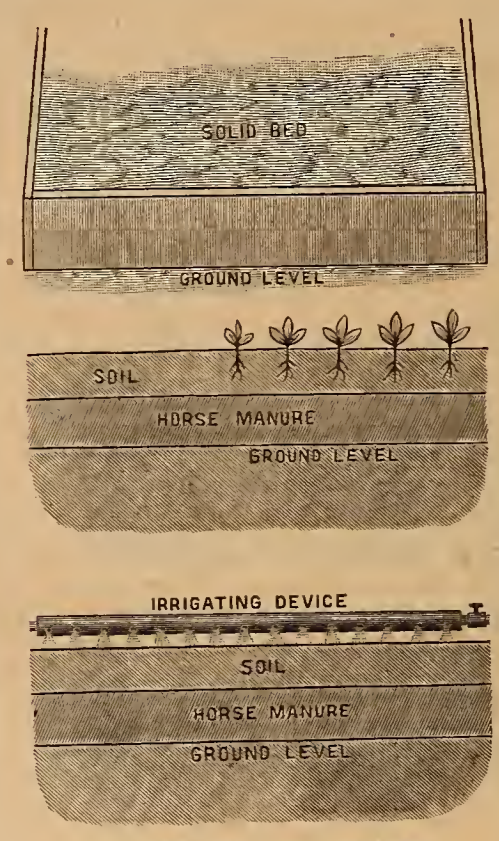
Lima Beans

We have enjoyed luscious and tender lima beans for many weeks this year. But the hot weather ripened them up rather faster than was desirable, and the vines now hang full of ripe pods. This, of course, put a check to further growth, bloom and pod production. I can see but little difference in the various forms of the common lima, such as the old "large" lima, the King of the Garden, Evergreen, etc. Dreer's lima is of a different type, but the difference between all these in ripening is inconsiderable. All are productive when the soil contains plenty of plant food. A good dressing of hen manure, after the plants are up, well worked into the soil by cultivator and hoe, seems to have an especially happy effect on growth of vine and yield. As usual, we shall at once gather the lower and best filled pods for seed, of which I want a good supply so as to be able to provide for emergencies. In some springs, when the weather is cold and wet, many of the young plants come to grief and have to be replaced by replanting. The balance of the ripe pods are also harvested, and will give beans for cooking or for sale.

Hothouse Lettuce

T. M. White (New Jersey) tells me that he gets more money from a house 120 feet long and 20 feet wide, devoted to radishes, lettuce and cucumbers, in succession, than from all the rest of his place, although he grows only crops that are particularly profitable. He plants the Boston Forcing lettuces, always in solid beds near the ground, and by an irrigation system of his own manages to have the plants fairly free from disease.

Four to five inches of the top soil is taken off, or thrown back, and a layer of clear horse manure, four to six inches in depth is then spread over the surface and the top soil put back on it. The horse manure is intended to feed the soil and



HOTHOUSE IRRIGATION SYSTEM

the plants above with moisture, something like a sponge. The water is applied from a piece of common two or two-and-one-half-inch tin pipe, perforated at the under side with one-fourth-inch holes three inches apart, and the pipe is fed from a tank kept filled by means of pump and windmill. This pipe is laid across the bed between two rows, and the water allowed to flow until the bed underneath has received a good soaking without wetting the leaves of the plants, and is then moved between the next two rows. The horse manure gets well saturated with water in this manner and supplies moisture to the plants until ready for cutting.

Planting in Succession

Along in June of this year I planted a little patch of Emerald Gem melons. This was several weeks after the main melon patch had been planted. I also planted a late patch of Evergreen sweet corn at that time. This late planting was done to prolong the melon and sweet-corn season in case of a warm summer and late, frost-free fall. It is now getting toward the end of September. The melons in that late patch have all ripened and served for our enjoyment and that of others, and we only have a few nubbins left in the late sweet-corn patch. The very last of these, already a little too old for boiling ears, are being used for corn fritters, and come very acceptable. Of course, had the season been cold and wet, with an early frost in September, the late melon and corn patches would have been caught by the frost, and our fun would have been spoiled. But it is always advisable to take some chances. It pays even if we hit it two in three times, and usually we can manage to get at least a partial crop by late planting. The same holds true of lima beans, and of many other things.

T. Greiner

Fruit Growing

Unfermented Grape-Juice

A GOOD recipe for making unfermented grape-juice is as follows: Five pounds of thoroughly ripe grapes; wash clean and pick from the stems. Put over them three pints of cold water and cook in a porcelain-lined kettle. When sufficiently cooked strain the juice through a bag made of cheese-cloth. Add one pound of granulated sugar; heat to a boiling-point, and bottle in clean sterilized bottles. Treated in this way there will be very little sediment, but in the course of a few weeks a small amount will form. If it is desired to get rid of this the juice can be put in large bottles or jugs until the sediment has formed, after which it can be drawn off by a tube, and after sterilizing again put in bottles. I think it is customary with the merchantable product to get rid of the sediment in this way.

Bone-meal as a Fertilizer for Violets

L. D., St. Paul, Minnesota—Bone-meal is a fertilizer for violets. Bone-meal has the advantage of being very safe, and at the same time furnishes a reasonable amount of plant food over a long time. It is not what is regarded as a quick-acting fertilizer. It furnishes phosphoric acid and nitrogen. I would suggest supplementing it with a small amount of muriate of potash, and using it at the rate of one pound to the square rod, since the addition of this would make a complete plant food. Such a fertilizer should bring about rich green foliage. If, however, you find that the foliage is still light green, the use of a small amount of nitrate of soda dissolved in water used for watering, at the rate of one half ounce to the gallon, or less, will certainly give you dark green leaves. Commercial nitrate of soda costs about five cents a pound in small lots. In a large way I think it is worth about $50 per ton.

The immature buds on the violet plants you sent in I do not think need cause any alarm, as they frequently appear at this time of year. The spots on the foliage I do not think the dreaded violet leaf-spot.

Apple Trees Injured at the Surface of the Ground

F. T., Spillville, Iowa—I cannot understand what has caused the injury to your apple trees at the surface of the ground unless it was due to water standing around them and freezing during the winter. I do not think the ants had anything to do with this injury. I think the ants went on to the apple trees for the purpose of getting honey dew from the aphis on the new growth. This is common. I think the best treatment for your trees would be to bank the trees up with solid earth for six or eight inches above the injury and then allow nature to take its course. It might possibly be well next spring, if the trees are then in fairly good condition, to bridge over the injured part with scions, the same as is sometimes recommended for bridging over injuries done to trees by girdling. I do not think the wood chips with mulch over them will hurt the trees, but I think I should prefer to bank them with earth each year, and then perhaps use the chips. The earth not only protects the tree at its tenderest point from winter injury, but also from girdling.

None of the persimmons, commercial filberts or Spanish chestnuts can be grown in northwestern Iowa with any great success, although hardiest persimmons, filberts and Japan chestnuts might be grown in a small way under best conditions.

Concord Vine Not Setting Good Clusters of Grapes

J. H. L., Saco, Maine—I would like to know more about your Concord grape-vine that grows thriftily and flowers but does not set good clusters of grapes. There are a number of conditions that might bring about this result. It might be that the vine was not pruned, but was allowed to run freely, under which conditions the Concord seldom sets compact, nice bunches. It is a vine that must be pruned in order to get good fruit clusters. Then, if rose-bugs were abundant and troublesome at the time the vines were in bloom, it is possible that they are the cause of the fruits being so few in the clusters. In either case the remedy is one that you must apply.

If you can give me sufficient data to determine these points I may be able to help you discover the cause of the trouble about which you complain. The Concord produces good clusters when well cared for.

Catawba Grape

J. W. C., Beaver Dam, Ohio—The Catawba is one of the best grapes for favorable locations in Ohio. It is of excellent quality and a good keeper. The vine is healthy and productive. The vines should be pruned this autumn, or the pruning may be left until the latter part of winter. They do not need covering in the winter, other than a little banking of earth eight inches high around the vine, to protect from freezing and thawing. While they are termed healthy, yet they should be sprayed to prevent injury from black rot.

Plum Suckers for Planting

W. M., McDonoughville, Louisiana—The suckers from the Burbank plum would be all right to set out, provided you were certain they came from the roots of the Burbank and not from the stock on which the Burbank is grafted, as is more than likely. They would be far better than you would be likely to get from the seed of the Burbank, as they would be true to name and on their own roots. Some horticulturists think this class of stock even better than grafted varieties.

Rose-Bugs on Pecan Trees

R. L. S., Onancock, Virginia—It is a very serious matter when rose-bugs are so abundant as to eat the flowers of pecan trees, and they are very difficult to combat. I would suggest that probably the best treatment for you to follow would be to spray the trees with Bordeaux mixture as soon as the rose-bugs appear. This remedy has proved quite successful in keeping the rose-bugs from the flowers of the grape, of which they are very fond. It is possible that in the case of large pecan trees it would be difficult, if not entirely impractical, to spray them when in bloom.

Time to Prune Trees

L. H. R., Dover—The best time to prune plum trees is on mild days in the latter part of winter, or early in the spring before the sap starts. The fruit buds on plums and other trees that bloom early in the spring are formed the preceding season. They are not always matured to the same extent when winter sets in. The maturity varies more or less with the climatic conditions. If you will take off some branches from your plum trees in winter and put them in water you will soon learn to determine the fruit from the leaf buds, as they will open under these conditions, and a little examination will enable you to determine the difference.

Name of Rose

W. H. M., Goshen, Ohio—If you wish the name of the rose in your collection it would be necessary for you to forward a fresh specimen, and also state its color and season of blossoming. The specimen sent on was in such a shape that I could not determine even its color.

Grapes

A. S.—The Brilliant, La Salle and San Jacinto I think can be obtained from Prof. T. V. Monson, of Dennison, Texas, who has made a special point of originating the new varieties of grapes adapted to the South.

Dewberries

H. A. W., Blairsburg, Iowa—Dewberries seem to be very fickle, and while we find a few places in which they produce abundant and regular crops, yet few people have found them profitable. As a rule they are unreliable and seldom profitable. At one time I thought I had the key to the situation, and by planting blackberries near my dewberries I would secure cross pollination—which would result in fruitfulness, but when carefully tried I failed in this. I have had best results with the Lucretia, and occasionally have had good crops of it. I think the best way to grow it is to raise it on a trellis, so as to keep it off the ground.

Rose-Bug

G. C., Birch, Nevada—Please send on a specimen of the bug that is injuring your rose-bushes. Without a specimen it would be quite out of the question for me to determine the insect to which you refer.

Samuel B Green

Call number.

Smith, Erwin F.

Experiments with fertilizers for the prevention and cure of peach yellows, 1889–'92. 197 pp. 33 pls. 8°.

Wash., 1893.

(U. S. *Agriculture, Dept. of—Vegetable pathology, Division of.* Bulletin 4.)

Peach yellows.
3442. Fertilizers for prevention of disease. Lib. U. S. Dept. Agr.

Farm and Fireside.
V. 29, Oct. 1905- Sept. 1906.

The Gully, Called Wall Street

A Prince of Wall Street nods to his clerk, and a railroad stock, *yours* perhaps, goes up like a sky-rocket; he whispers to his partner and it drops again like a *dead* sky-rocket. A wonderful game, this!

You may not live within sound of a "ticker," but its sharp *click-clack* affects the food you eat and the clothes you wear.

Not many people understand the real life in that amazing gully—Wall Street. You have read facts and figures and exposures—but these are mostly partial, incomplete, about *things* rather than *men.* Such information is *dead*, and, therefore, not quite true.

A *story* may be truer than Truth because a story really lives and breathes. Edwin LeFèvre knows Wall Street as a breeder knows his colts, and he has written a great story, "Sampson Rock" of Wall Street.

Sampson Rock is a strong man, keen, hard and thrilling. Like most men, he is both good and bad. He can control a railroad, but not his own son. The story begins during October in

THE SATURDAY EVENING POST

THE SATURDAY EVENING POST is a weekly magazine of general interest—vital to every member of the family. It will give you news from Washington (real truth—not partisan reports)—it will give your children articles on business principles and success in life—it will give the whole family sensible, first-class reading matter.

Just to show THE POST's variety, here are a few of the articles to appear this autumn.

Contributions by Senator Beveridge, including "The Vicious Fear of Losing."

"Who's Who and Why"—a regular department which tells you about people—real live people of the present—interesting people whom you want to know about.

A Western series, "The Great American Steer," by Emerson Hough.

"The Wife of Narcissus," a story which pictures the life of the near-poets in New York.

"Letters to Unsuccessful Men," by a Failure.

"Getting On in the World," a regular department in which different people tell *how* they have won success.

We will send you The Saturday Evening Post every week for four months (seventeen weeks) on receipt of only 50 cents in stamps or silver

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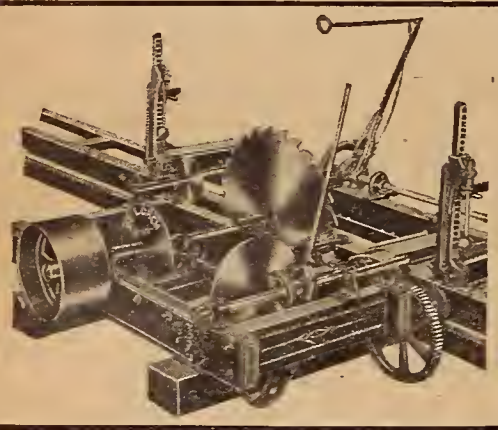

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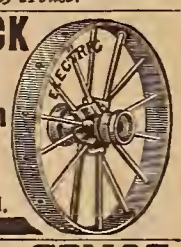

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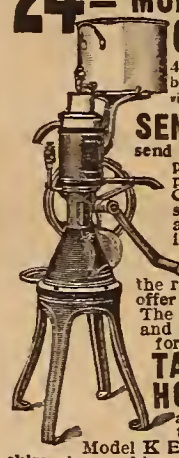

400-pound per hour capacity, the best separator made in the world provided we receive your order within 30 days.

SEND NO MONEY. Cut this ad out and send to us and we will send this big, 400-pound per hour capacity, New Improved, Model K Economy Hand Cream Separator by freight, C. O. D., subject to examination. Examine it at your nearest railroad station, and if you are convinced it is the equal of any separator you can buy anywhere for $100.00, then pay the railroad agent our special thirty-day offer price $24.95 and freight charges. The separator weighs about 200 pounds and the freight will average about $1.00 for each 500 miles.

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THIS OFFER IS GOOD ONLY FOR 30 DAYS. To get this new, big, 400-pound per hour capacity Model K New Improved Economy Separator for only $24.95, less than one-half the price for which separators are sold to dealers in carload lots, and one-fourth the price at which inferior separators are sold at retail, to take advantage of this extraordinary $24.95 price WE MUST RECEIVE YOUR ORDER WITHIN 30 DAYS.

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THIS SEPARATOR is covered by a written, binding 20-year guarantee. We will always furnish you repairs in the years to come. We guarantee the machine to do everything that any other separator will do and do it easier and better. Don't wait until next spring and then pay $75.00 or $100.00 for an inferior machine. Send us your order immediately. Your order must reach us within 30 days to get the benefit of our $24.95 price on this big 400 pounds per hour capacity Model K Economy Separator, the best separator made in the world. If you don't order this Big Machine at $24.95, don't fail to write for our free Cream Separator Catalogue. Address,

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Poultry Raising

Eggs as a Specialty

THE farmer should not be satisfied to receive ordinary prices for eggs, as he can sell to the best advantage by giving special attention to his product. Many farmers accept less than the real value of their poultry and eggs because they are careless in observing the conditions of the markets, or are too inexperienced in the methods so essential for deriving the highest prices obtainable for articles of choice quality, and which sell solely upon merit.

In the large cities the majority of consumers know nothing regarding many articles of food purchased. They are disposed to believe that farmers as a class are honest, and are also willing to give full value for the prices obtained, but the consumer buys upon faith, as the jobber, the large dealer and the pedler stand between the farmer and the consumer. As eggs are brought into market from many sources, and are collected in small quantities from the hundreds of farms and village stores, those who handle eggs know but little more regarding their condition than the consumer, and yet the consumer stands ready, with open purse, to pay good prices if he can be assured that he is procuring the freshest eggs that come into the market.

It is not unusual for the consumer to pay much more than the quotations given, and yet be disappointed when the test of quality or freshness is made at the table. The disappointment does not always result from dishonesty on the part of the commission merchant (or dealer) who sells the eggs, for merchants are sometimes convinced that the eggs handled by them are all that may be desired, and this uncertainty induces those who are willing to pay well for the best to give their patronage solely to him who will come forward and supply them. In other words, they will cheerfully remunerate (by offering high prices) the farmer who gains their confidence, and who thus relieves them of the necessity of seeking in the general market for strictly fresh eggs which cannot easily be obtained without incurring risk of disappointment.

The farmer who is willing to accept the conditions and supply the demand for strictly fresh eggs must get ready for the trade. He should first stock his farm with a sufficient number of hens to fill any demand, and he will find the demand increasing every year, if he does his duty to the consumers. If he is so unfortunate as to be unable to supply an order, he should frankly inform the customer of that fact, for he should not, under any circumstances, buy an egg from a neighbor. It is the stepping aside from the beaten path to procure eggs elsewhere than on his farm that the producer falls. He is then a customer himself, buying on uncertainty and faith, and a single mistake may crush his business.

The farmer who undertakes to supply parties in the cities with strictly fresh eggs, but who must depend upon buying from neighboring farmers, cannot establish a permanent business, for the reason that he knows nothing of the quality of his goods. Even the neighbor who is disposed to be careful may make mistakes, and add stale eggs with those that are fresh, especially if the eggs are from farms where the hens lay in the troughs of the stables, or steal their nests, for it is a great temptation not to discard a lot of eggs when they can be sold at something more than the sums offered at the village stores.

The farmer who makes a specialty of supplying fresh eggs to certain customers uses the pure breeds, in order to secure uniformity of product, if possible. For instance, in the New York City market, eggs with white shells bring higher prices than eggs having dark shells, but in New England the dark-shell eggs are given the preference. Here we have an illustration of individual peculiarities and characteristics, for the admirers of white eggs are willing to pay a little more for them than for the dark, while the New Englander is ready to add a small percentage for the privilege of selecting eggs that are dark. Yet the color of the shells has no influence whatever on the quality of the eggs. To satisfy both parties, the farmers who supply New York City with the best eggs use the Leghorn, Minorca, and other non-sitting breeds, as a rule, while Boston gets her choice eggs from hens of the Brahma, Plymouth Rock, Wyandotte, or other breeds that lay eggs of darker colored shells. It is more difficult to secure uniformity with dark eggs.

Eggs should also be of uniform size, and the specialist farmer assorts them, both in regard to colors and sizes. He sends them to market in neat little boxes, holding one dozen each, not an egg having been layed over twenty-four hours, and, if possible, they are shipped the same day they are collected.

To properly prepare for supplying strictly fresh eggs, the poultry-houses should be constructed in advance, and additions may be made as required. Hatch your own pullets, and do not buy from others, as it is best to know the kinds of fowls used. Gradually add to the number of hens, year to year, until the flocks are complete and no others are desired. It is not necessary to state how to manage in feeding, as this article would be too lengthy, while the FARM AND FIRESIDE endeavors to instruct in every issue. The farmer should get ready for a special trade, and he should aim to make a reputation. Better sell a whole day's collection of eggs at the country store than to ship to regular customers if there is the least doubt of the condition of the eggs. A single stale egg may destroy a reputation which was obtained by several years' honesty, care and attention.

The farmer will naturally inquire how to obtain the desired customers. He must be a man of business and seek them. Even the dealers will pay high prices as soon as they know that the farmer is reliable. The farmer should put his name and address on every basket of eggs sent to market. If necessary, he can go to the large markets in person, and convince the customers of his intentions, and they will seldom fail to give him a trial. Bear in mind that strictly fresh eggs are always scarce in market. The candled product and cold-storage articles do not compete with the fresh eggs from the farms. There are customers for fresh eggs in the nearest towns, and sometimes eggs bring good prices in villages.

To supply eggs to special customers is an opportunity to any farmer. There is but one possibility of failure, and that is when the farmer attempts to buy eggs and sell them to customers who pay high prices that they may obtain eggs produced solely by the farmer's hens.

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Disinfecting with Sawdust

Dry sawdust is one of the best materials that can be used on the poultry-house floor, where cleanliness is desirable, being excelled only by leaves. It is claimed that the fowls will swallow some of the sawdust with their food, but such is not necessarily the case. During the winter, or at any season of the year, sawdust may be spread over the floor of the poultry-house. It quickly absorbs all the moisture of the manure, is not chilling to the feet, affords an opportunity for scratching and dusting in winter, and mixes well with the manure. It is also excellent to spread under perches to receive the droppings during the night, and is as quickly applied.

A cheap disinfectant may be prepared by dissolving a pound of soap in two gallons of boiling water, adding a pint of crude carbolic acid, and stirring or agitating the whole until the acid and soap solution are well mixed or emulsified. Pour it into a bucket, or other suitable vessel, and shovel the sawdust into the solution until all of the solution has been absorbed by the sawdust. When desired for use, simply scatter a handful of the carbolized sawdust over the floor, under the perches, or wherever needed, and it renders the house obnoxious to flies, bugs and many other pests that annoy the hens, as well as destroys some of the odors.

P. H. Jacobs.

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About the Incubator Trade

The following letter from a manufacturer of incubators explains itself:

"Yes, when I was a boy I worked on the farm, when I was a man I worked on the farm, and I wish I worked on the farm now. The farm is all right, and so is FARM AND FIRESIDE when it comes to an advertising proposition. A few years ago the FARM AND FIRESIDE was not worth a continental for incubator advertising, but for the past two or three years the incubator advertiser has won out, at least I have. Your hen editor seems to be favorable to incubators. We will be with you again another season."

Live Stock and Dairy

Young Agricultural Geldings and their Development

IN TAKING up farm-work when rising three years old, the young gelding is generally put in the yoke alongside of a steady, plodding, older animal, which shows no disposition to restiveness. Passing objects, which used to startle and excite him when a young one at grass, he will gradually get accustomed to, in this position, and by and by will scarcely notice even an up-to-date automobile. Of course a great deal will depend on the plowman who is in charge; a soft voice, and a light hand, with a sparing use of harsh words, having much to do in molding the character for the future. Hot-tempered, strong-speaking plowmen have often been the cause of bad tempers in horses which have been bred off a mild-tempered stock, and most likely would have remained quiet, mild and tractable in every way if they had passed through other hands.

If the city market is in view, it is important that the colt be encouraged to step out with an extensive, vigorous action. Short-stepping horses, however powerful, do not suit well for heavy street work, when loads are heavy, journeys long, and the wheels always turning. With a free launching movement, knees, shoulders, thighs and hocks are all brought equally into play, and when the horse reaches five years old he has quit all of his awkward coltiness, and is going free, square and even at both ends. He is just then the horse that millers and brewers want, if he is up to their weight, has ample bone, and his feet wide, deep and of a lasting character.

A good many breeders, as is well known, sell the young colts off the farm at two or three years old, not caring to take the initial trouble of the preliminary training. In many cases they have not full work to keep the animals going, and it does not pay to have them idle after they are quite fit to earn their keep. It therefore pays them best to sell the youngsters to those who can keep them, developing body and muscle in the manner indicated, till the time comes when they are fit to go into cities.

When spring work is a little late, farmers are tempted to take a little more out of the young ones than they ought. Hot, sweating noontides, followed by chills in the afternoons, are very trying to raw young animals, and break them down hopelessly in body and spirit for after life.

W. R. GILBERT.

Some Handy Feed Racks

I find that the handiest and most economical rack for horses is made by making a manger about three feet from the ground, two feet wide and eighteen inches high in front, and two feet in the back. Make a feed-box to fit in the top of the manger at one end of the stall. It should be six inches deep and fourteen inches wide. In making the partitions in the stalls, let the plank extend across the mangers and slope gradually till they slope twelve to fourteen inches at the top, which should be about two feet above mangers. Nail plank to this sloping partition, and nail a strip about two feet from the edge of these planks to the top of the partition. Nail slats to this piece at the top and to the back of the manger at the bottom about six inches apart. This rack is to feed the hay and fodder in, and what falls while the horses are eating will go in the mangers and not on the ground to be tramped under foot by the horses and wasted. Feed corn, oats, ground feed in the feed-box, and the chop-feed in the manger.

For cows I prefer the mangers to go the full length of stables. They are more easily cleaned without partitions. Have these mangers about twenty-two to twenty-four inches wide, eight inches high in front and two feet high in the back. Have the stalls about three and one half to four feet wide and make partitions between the stalls high and long enough to prevent the cows hooking each other. Make a box ten by twelve by eight inches deep, and nail it to the front of the manger and to the partition on the left of stall. This is for ground feed and salt. The cows will get more good from their feed, as the other cows cannot get at it, and they cannot root it all over the manger and waste part of it, as is the case when the shipstuff is poured on a pile in the mangers. Tie the cows just long enough to permit them to lie down comfortably and they cannot reach far enough in the manger to hook or steal the feed from the other cows.

For outside feed racks drive posts about seven feet apart, about three feet high for cattle. Nail a two-by-twelve piece to the top of the posts and bore a slanting hole about one inch in diameter every six inches on each side of the two-by-twelve. Take a two-by-four and make holes in it to correspond with the two-by-twelve; get round pieces about two and one half or three feet long, and put in the two-by-twelve and the top in the two-by-four. Nail the slats across the top at the ends and about every seven feet in the rack for braces. Bore two holes in the end of the two-by-twelve, and through the braces at the end, and place the round pieces in these. Now you are ready to put in your hay or fodder, and have the satisfaction of knowing it will not be trampled in the mud.

For sheep the rack need not be more than eighteen inches or two feet from the ground, but should be made the same as for horses or cattle. For grain troughs for sheep, make the troughs about six to ten feet long and fourteen inches wide and eight inches deep, with a partition every ten or twelve inches. Nail legs to these, so they are about eighteen inches high. Racks and troughs for sheep will do for calves. I prefer to feed slop and milk to calves in buckets, as they are liable to form the greedy habit, and drink more than is good for them if fed slop in a trough with other calves.

Indiana. W. KING.

Cow Stanchions

I send you herewith a sketch and description of a stanchion which we have used in our stables with much satisfaction. We have used both chains and the old stationary stanchions, and have seen some of the modern patented cattle ties, but consider this stanchion superior to any of them.

With this stanchion the cows are given sufficient freedom without undue liberty.

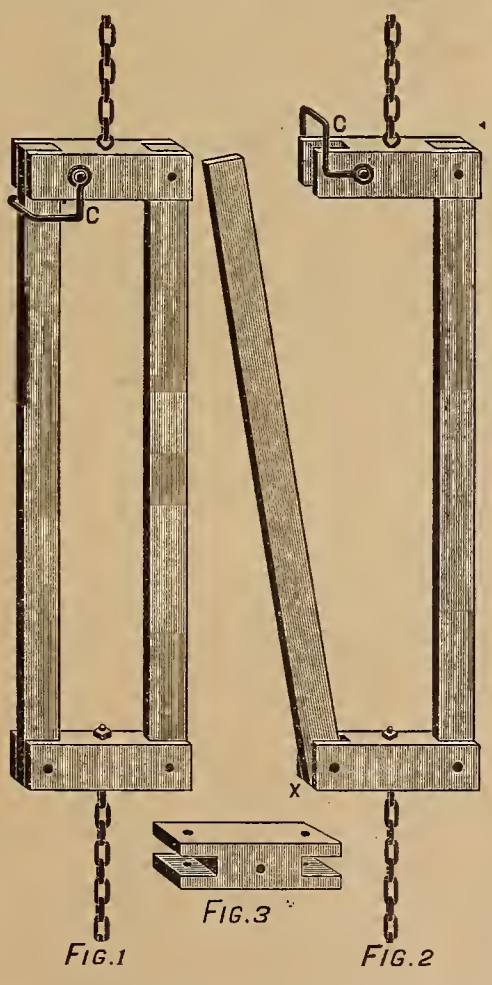

FIG. 3

FIG. 1 FIG. 2

They can turn around to lick themselves, yet cannot get back on the walk or ahead in the manger.

Figure 1 shows the stanchion closed. Figure 2 shows it open.

The two sides are made of hard wood four feet long, one and one fourth inches thick and two and one half inches wide. The end pieces are also of hard wood, and are one foot long by three and one half inches square, and are mortised to receive the sides as shown in Figure 3. The sides are fastened to the ends with bolts, one side on bolt at X, and being held when closed by clevis C. Eyebolts are affixed at each end, to which short chains are fastened, and by which the stanchion is suspended.

The whole stanchion, including bolts, labor, etc., should not cost more than sixty or seventy-five cents, and may be made for even less than that amount.

Canada. F. G. SEMPLE.

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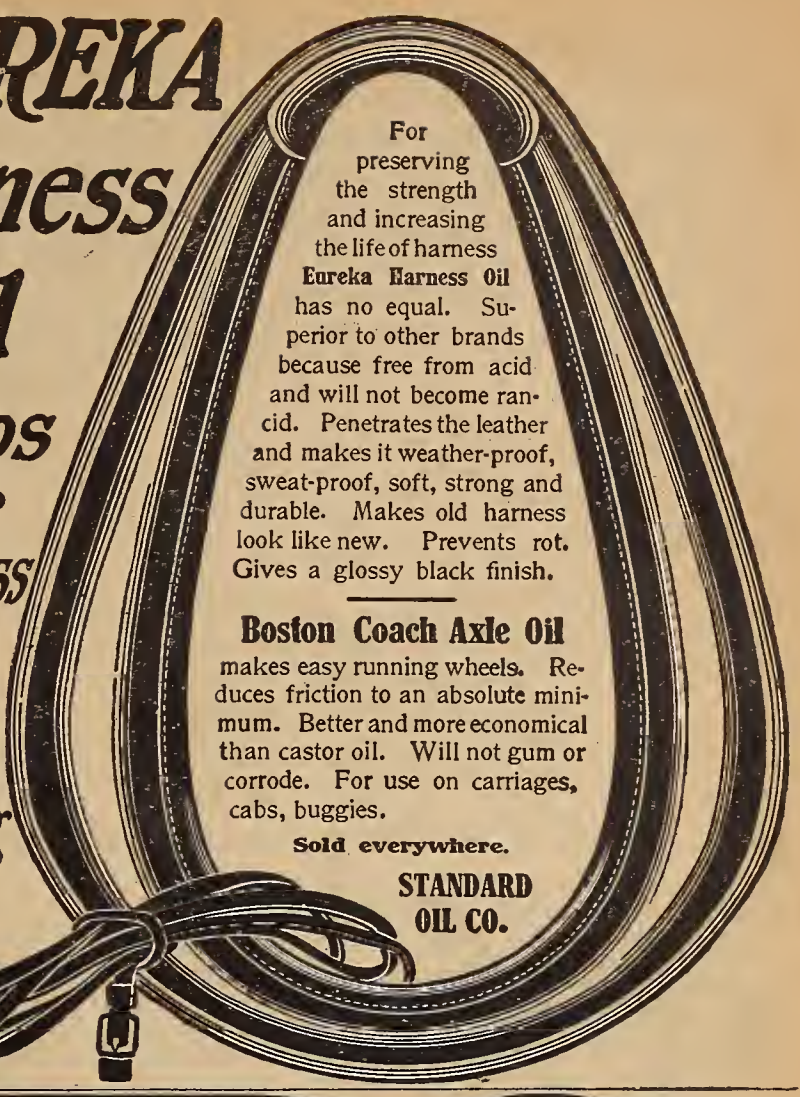

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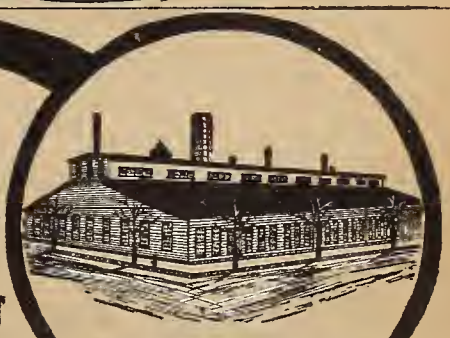

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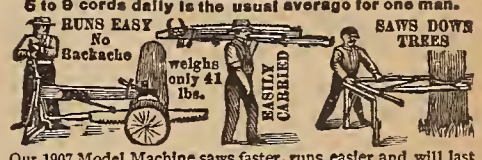

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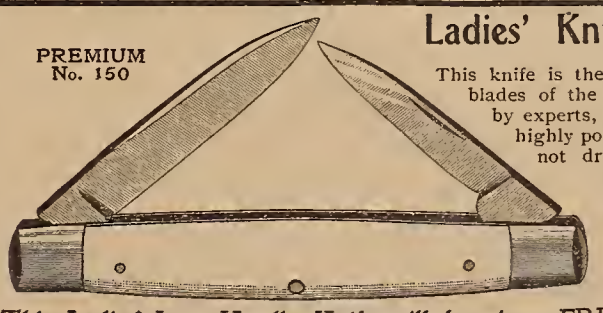

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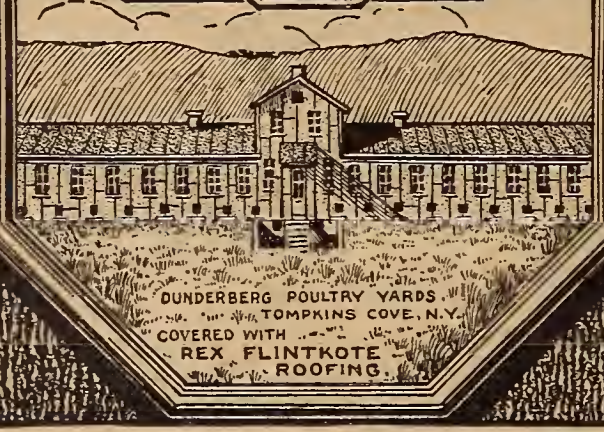

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The Family Lawyer

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Vacation of Streets

W. J. C., Illinois, writes: "Our town was surveyed and laid out in one-acre lots, clear of the street on either side. The streets could be used for public purposes as long as it is a town. There is three blocks on either side of one of these streets. One of the principal heirs owns two of the blocks. The streets are fenced up and divided as regards the portion of land. Has anyone a right to pile up anything against their neighbor's corn-crib, or anything else that would damage you? We have no town law, we are governed by the state law."

When the ground is platted into lots or blocks, and streets and alleys are laid out, no individual has a right to close up any street or alley, no matter whether it be used or not. Of course, if the closing up of the street or alley does not injure anyone, then there is no one that could raise an objection to such closing up; but every lot-owner in such a platted addition has an interest in the streets and alleys, and could prevent another from closing them up. No one would have a right, even where a building is situated on a line, to pile up rubbish against the building in such a way as to affect the building.

◈

Purchase of Ground—Distance to Control

A. B., Pennsylvania, writes: "A. has two plats of ground advertised to be sold at public sale. One of 114 feet front and another of 28 feet front. When auctioneer sells tract No. 1 he states that it extends from F.'s property down along road to the garden fence. When he sells tract No. 2 he states same to extend from garden fence down, 28 feet. B. buys tract No. 1, M. buys tract No. 2. When B. measures his tract he finds it more than 114 feet. When M. measures his plot he finds it to be less than 28 feet. A. and M. then together move garden fence back on tract No. 1, six or eight feet, enough to make tract No. 2, 28 feet front. B. objects to this, claiming he bought from F.'s property to garden fence as per auctioneer's conditions when sold. B. comes to A. with the money to pay for tract No. 1. A. refused to give a deed for ground from F.'s property to where garden fence originally stood, but, gave M. a deed for 28 feet. With tract No. 1 was sold a private alley. When M.'s deed was given it gave him privilege to use this alley. Can B. hold tract No. 1 from F.'s property to where garden fence stood when sold, or must he submit to have the fence moved up the six or eight feet, enough to give M. 28 feet front? Is M.'s deed a good title, and lawful, including the privilege of using the alley sold to B.?"

It occurs to me that the size of the lots could be controlled by the length as advertised, that the mere fact that the auctioneer stated that a certain amount went to a certain place would not override the advertised length of the various lots. If they were advertised to be a certain length, a purchaser would not expect to get more than the advertised length. Of course the purchaser, if he was misled by the auctioneer's statement, might refuse to accept or comply with the sale, but he would have no right to the extra amount and compel the seller to make a deed therefor, and in the above case the seller had a perfect right to give a deed to the purchaser of the 28 feet, and also a right to use the alley. If B. wishes to hold this property he will only be entitled to get the 114 feet. Of course M.'s deed is good and lawful, including the privilege of using the alley.

◈

Real Estate Held in Trust

M. C., California, writes: "A. deeds real estate to B. in trust for C. A. dies, B. sells the most of that property, and when B. dies he has nothing. C. dies. Can C.'s heirs do anything to try to get that property? C. deeds property to her youngest son, can the other heirs set that deed aside, knowing she had done this over four years before her death?"

If B. held the real estate in trust for C. I do not understand how B. could make a good conveyance of the property. However, all of B.'s rights and the rights that he could convey to another depend entirely upon the provisions of the trust. If he had no right to convey, then of course C.'s heirs can recover the property, but this answer is not very definite for the reason that the query does not state the nature of the trust. Whether or not C. could deed this property to some one of her children to the exclusion of the others, would depend upon the fact whether or not C. was entitled to all the property, or possibly upon the question whether C.'s right was a vested estate. If C.'s interest became a vested one at the time A. made the deed then her interest would be such a one that she could give it to whomsoever she might choose. However, it may be that by the provisions of the trust that this did not in fact vest in C. until B. died.

◈

Control of a Wayward Child

Subscriber, from Nebraska, writes: "My son, who is sixteen years old, ran away six months ago and refuses to come back. (1) Could I have him sent to the reform school? (2) He is now in Wyoming. How should I legally go about it, and what would be the probable cost? (3) If sent would he be taught something useful and be made to obey?"

I very much doubt whether there is any method in law provided you for recovering or compelling your son to return. I have not the Nebraska statutes at my command, but I am of the opinion that he is now too old to send to the reform school, merely because he is incorrigible. Of course, if he was sent to the school, they would teach him all useful things. However the benefit that would be derived from a school of that character, by reason of the class of pupils that are sent there, is always one of doubtful value. Usually the boys that are sent to that school are bad boys, or they would not be there. Consequently when a number of boys of that character come together they are likely to teach each other a good deal of mischief. For a bad boy it is probably the best place for him, but for a boy that is not very bad it is not a very good place. I could not tell you the cost or anything of that kind. For this matter you must consult someone at home.

◈

Right to Soil in Street, etc.

T. P., Ohio, writes: "A. has two village lots, and the town council has ordered a sidewalk to be built in front of them. There is considerable dirt to be moved in front of them. Who does the dirt belong to from the lot-line to the curb in the street? Can the council take the dirt and fill in the street or streets in other parts of town without the consent of A. the owner of said lots?"

My judgment would be that the council would have a right to take this dirt and use it anywhere else on a street or highway. They would have no right to sell it or give it away to any person or use it for any other purpose. The street when it is dedicated is given to the public for use for highway purposes, and so long as it or the dirt therefrom is used for highway purposes it is a perfectly legitimate use.

◈

Right of Eminent Domain

L. H., Florida, writes: "Can a man be compelled by the laws of Florida to let anyone have a right-of-way, and if so, what is the customary charge for such through farming land? Also through unfarmed land. How are the right-of-ways bought, by the rod or amount of acres included therein? What is the highest charge that can be made?"

I presume the ordinary laws relating to the right of eminent domain apply to Florida as well as elsewhere. In fact there is little difference between the laws of the various states on that subject, and by such a law a railroad or other corporation has a right to condemn its right-of-way through premises of another. The only provision attached thereto is that the owner must be compensated in full for the damages sustained. I cannot answer what such charges would be in your state, other than to say it is the value of the land actually taken and the injury sustained to that portion remaining after the improvement or railroad is put thereon.

Aymar Rockel

Mental Activity

BY C. W. SUPER, EX-PRESIDENT OF THE OHIO STATE UNIVERSITY

THERE is a passage in John's Gospel, in which we are informed that Jesus told Peter the time would come when he would no longer be able to do as he liked, because another would compel him to do what he did not like. There is a sense in which this is true of an overwhelming majority of the human race. Very few persons are aware that in the early years of their lives they are training up a tyrant who will eventually reduce them to the condition of the most abject slavery. They may not know their pitiful condition, but it exists, none the less. Very few insane persons are aware of it, yet that does not alter the fact.

Any person who has had a fairly decent bringing-up is in a large measure a free moral agent between his twentieth and his thirtieth year. A careful observer has said that what an individual is at eighteen he will be to a greater or less extent all the rest of his life. I think this is perhaps not quite true. But it is a sad misfortune that so many young men and women are "finished" long before they reach middle life. The ruts and grooves in which their thoughts will henceforth run are by that time worn so deep that it is next to impossible to make new ones. "Habits are at first cobwebs, at last cables," says the proverb. We weave them or let circumstances weave them about us, imagining we can break them whenever we please, if we give the matter any thought, when lo, to our dismay we find that we are helpless. Need we wonder why the progress of the world, in the best sense, is so slow, when we see how hard it is to get a new idea into most people's heads? They fall into a way of thinking and doing, then continue to think and do along the same lines for the rest of their lives because it is easy. There is no more strenuous work than thinking, and there is none in which so few persons engage in all seriousness.

"In spite of the proverb that it is hard to teach an old dog new tricks I have had less trouble with dogs than with human beings into whose heads I have tried to put new ideas," said a gentleman to me not very long ago, a man who professed to have had a good deal of experience with both men and the canine tribe.

Most men's minds are just as good at seventy as at thirty, or at least ought to be. I can name a dozen men who are over eighty and who are intellectually as vigorous as ever. Senator Pettus, of Alabama, was born in 1821. His term of service will soon expire, but he is a candidate for reëlection. It is not urged against him that he is too old. If old men will profit by experience, if they will be careful not to get enrolled in the "dyed-in-the-wool" class, they ought to be the most valuable members of the community.

In this fast-moving age what is the use of a man who has ceased to learn? Whose mind is hermetically sealed and even worse? Just the same use that a well-trained horse is—"you can always put him through his paces, but you can't do any more. You might as well try to sell soap to a tramp, or to batter down Bunker Hill monument with ripe oranges as to try to get Jim Smith to do anything differently from what he has been used to doing."

I once heard one of my father's neighbors say about another neighbor, after trying in vain to get him to act upon a perfectly reasonable suggestion. He could not meet the proposal with argument; his only reply was, "what was good for my father is good enough for me." The man was not a fool—he was simply an extreme type of that ultra-conservative class who are as much afraid of a new idea as they are of the small-pox. I was once walking along a highway in Germany, when I came across a man who was cutting corn with a grain-cradle. It had been sown thick on the ground for fodder. I asked him why he did not plant the corn in hills and raise ears, as I thought it would be much more profitable. "It never occurred to me that I could do so, though I have seen corn in the ear." What a large family that is to which the man belonged who carried his wheat to mill on horseback, balancing the grain with a stone in the other end of the sack. When his boy threw away the stone and divided the grain he got a thrashing for pretending to be wiser than his father.

It is painful to think that a large majority of the men and women we see about us every day are mere puppets moved by invisible threads. Not long ago I asked a grocer for some butter. He showed me a roll, at the same time remarking: "This was made by Mrs. ——. It is very fine in every way except that it is over-salted. I want Mr. ——'s trade and so I buy his wife's butter although I lose a few cents on every pound. If I should suggest to her to use a little less salt she would get mad and never come near my store again." Here force of habit had made a fool of a woman; for is it not so said of the individual that is wise in his own conceit? There is no inherent cause why a man should not control himself more completely in advanced age than in the impulsive period of youth, unless his faculties are impaired. The will is everything. A great philosopher has truly said that there is but one good thing in the universe, and that is a good will.

When a small boy, I once went with my father to a justice of the peace with whom he had some business. I noticed that when the official, who was about seventy, did any writing he held the wrist of his right arm with his left hand. Boy-like, I showed my surprise. The old man noticed it. Turning to me he said: "I am a nervous wreck from the use of tobacco. I have long tried to give it up, but it was too late. I can't."

I have never forgotten that sight and that lesson. I have tried to avoid doing anything from mere routine for which I am unable to give a good reason. I have too lofty a conception of the dignity of the human mind to permit mine to degenerate into a mere machine, or fall to the level of the brute that does a thing to-day because it has become a habit. It often happens that persons, who are in early life wisely economical, come in the course of time to regard money as the all-in-all of their existence. They become a sort of miniature mint that is good for nothing but to coin money. It is a pitiable condition for a human being, whether he deals in millions, in thousands, in dollars or in dimes.

The Grange

The Grange Correspondence Course

The Grange Correspondence Course offers its members an opportunity for home reading and grange recitation in agriculture and domestic science. It is offered by the grange as one of the dividends the grange pays its membership. The Ohio State University and the Ohio Experiment Station are coöperating with the grange to extend this opportunity. The curricula are under direction of a committee composed of the president of the Ohio State University, the master of the state grange, the dean of the College of Agriculture and Domestic Science and myself. The outlines for study are prepared by members of the committee, the faculty of the College of Agriculture and Domestic Science, and the Ohio Experiment Station.

The aim is to make home reading methodical and systematic, the result uniform and even instead of haphazard. It will supplement the very excellent work the agricultural press, experiment stations, colleges and departments of agriculture are doing. It will multiply many fold the work of the grange, because it will give every lodge that so desires an opportunity to have a succession of programs, each fitting into the other just as one lesson in school slips into the next, and is in reality a preparation for the next. The work is methodical, systematic and uniform. The aim is to use the foundation laid by the common school and build thereon manhood and womanhood most useful to themselves and humanity. It helps business.

Outlines containing suggestions for papers and questions are prepared for each lesson. They are based on a text-book. References are also cited, so that the student may have the opportunity of as extensive reading as he desires to make the work interesting and valuable. The books are sold at wholesale. It costs the state nothing, as the grange supports the work. It is an opportunity offered by the grange. He who avails himself of it will receive the benefit. He who does not will receive nothing, unless he is a member of a grange where the work is carried on.

What is the Grange Correspondence Course? Do you know about the Chautauqua work that has girdled the globe with students? This is a grange Chautauqua Course. It is an opportunity.

Election of Senators by Direct Vote

The grange has insisted for years that senators should be elected by direct vote. The Oregon plan, as it is called, is meeting with approval. Each party places its candidate on the party ticket, and the candidate receiving the largest number of votes will in all probability be elected by the legislature as senator. While this is a modified form of direct legislation of senators, it is a step in the right direction.

Let the grange push with increasing vigor the election of senators by direct vote. And at the same time let the spirit of independence in voting be encouraged. Never let it again be possible for corrupt machine methods to prevail. Let the votes be for policies, not men nor parties. But select strong men to lead, men who can stand against corruption, who can be honest and upright in the face of temptation, who can bear the whips and stings of disgruntled people with equanimity, caring only for the vindication of their own consciences. Direct legislation will not avail much without an honest, fearless, independent constituency. The people will get just what they are worthy of getting.

A GRANGE PICNIC PARTY

A merry party of patrons accompanied National Master Bachelder and State Master Derthick to the picnic at Buckeye Lake, Licking County, Ohio. The camera caught the crowd. Reading from left to right, the three ladies standing in diagonal line are, Mrs. H. A. Weber, Miss Kelly, Mrs. Ida K. Galbraith, Superintendent Traveling Library Department. The next three are Mrs. Merrill, with flowers, hostess to the party, Mrs. A. F. Burgess and Mrs. Lee. Mrs. Boileau stands just back of her two daughters. Reading from left to right are Prof. A. F. Burgess, Chief Inspector Orchards and Nurseries, Department Agriculture, Prof. Henry A. Weber, Department Chemistry, Ohio State University, Mr. Boileau, Ohio Experiment Station, State Master Derthick, National Master Bachelder, Prof. McCall and Prof. Decker of the Ohio State University.

The Observatory

No class of persons has contributed so much to the discontent relative to vast accumulations of private property as those who have disregarded moral, ethical and written law in gaining and retaining it. Respect for law by what are called the middle and lower classes alone has made possible the arrogant stealing. "Steal by law" has been the motto of one, while "Obey the law" has served the others.

Mary E. Lee

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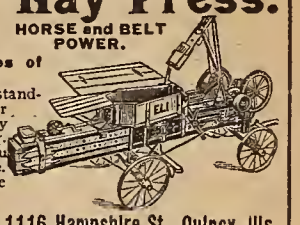

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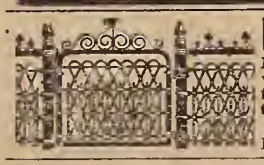

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FARM AND FIRESIDE

The Making Over of the Howards

By Hope Daring

CHAPTER V. [CONTINUED]

ALICE was very quiet after the departure of the physician. To all of Mary's remarks the invalid replied only in monosyllables. It was not until Elsie reached home and began to ask, in her rather imperative way, of the doctor's visit that Alice said,

"I did not really like him; he is too brusque and positive. However, I feel certain that for me to follow his directions will mean for me to come back to health and strength. Think of it, my sisters—health, after almost a score of years of invalidism."

She picked up the sketch upon which she had been at work when the physician entered the house. Mary had noticed that Alice had not resumed her occupation after the going of Doctor Merdith.

"In a way, Elsie, your new doctor sharply criticized my picture. He insinuated that my pencil was 'only a medium for poor work,' and I am not sure but he was right."

"We do not care for Doctor Merdith's opinion of your drawing," and Elsie bent down to smooth her sister's brown hair. "Your pencil amuses you; that is enough."

"It will not be enough if I come back to health and strength," Elsie said decidedly. "Because I have dreamed away the best years of my life is no reason why I should not improve what is left."

The entrance of Aunt Patience put an end to the conversation. Elsie was conscious of a feeling of doubt. Had she been too certain of her own right to interfere in the lives of those who were so dear to her? Where would Alice's new fancies lead?

"I tell you what it seems good to think that Howard Farm is again under Howard rule," Aunt Patience said as the four women sat at the tea-table. "It just made me wretched to see things go to loose ends, as they did under Tom's rule. Are you going to farm in the old vigorous way that your father did?"

"You must ask Elsie," and Mary smiled fondly over at her younger sister. "While I find myself able to work within doors, I must leave the planning for the farm to Elsie, assisted by Bert and Mr. Maynard."

"We will go slowly but thoroughly," Elsie said, "trying to bring the farm up to its past standard of excellence. The land has been what Bert calls 'run,' and we must seed much and keep stock."

Two days later Elsie again drove to Lenox after school. She wanted to see Doctor Merdith and learn his opinion of her sister's case.

To her surprise on entering the doctor's office, Elsie found Jerome Dare seated there, a book in his hand. He rose and placed a chair for her.

"You want to see Doctor Merdith? He is in his private room, engaged with a patient, but will soon be at liberty."

Elsie sat down, vaguely conscious of the feeling of restraint that Dare's presence always roused in her nature. He did not appear conscious of it, but went on easily.

"It was such a pleasure for me to find Merdith here; he and I were college friends. I was just looking at James Lane Allen's 'The Reign of Law.' The critics say that in nothing but literary finish and musical expression does it approach his 'The Choir Invisible.' Have you read that book?"

"No. The only thing I ever read of Mr. Allen's was his 'A Kentucky Cardinal,' and I thought that beautiful. It was not so much the story as it was the telling of it that charmed me."

A smile lighted up Jerome's face. He leaned forward eagerly.

"Ah, that is Allen's power. Miss Howard, I am going to bring up 'The Choir Invisible' for you to read. In 'Mrs. Falconer' the author has portrayed a perfect woman, a type that we rarely meet in real life."

Elsie's cheeks flushed a bright red. "What of the hero?" she asked, and the man's ear caught the mocking note in her voice. "Why is it that men are always so ready to judge a woman, assuming that they understand her nature?"

"You misunderstood me, Miss Howard. I meant—"

The opening of the door from the inner room and the entrance of Doctor Merdith, accompanied by his patient, put an end to Jerome Dare's explanations.

Elsie stated her errand briefly. What was his opinion of her sister's case?

It was some time before the physician replied to this plain question. He sat leaning back in his chair, a preoccupied look on his face. Suddenly he sat erect, his dark eyes frankly meeting Elsie's gaze.

"There is no reason why your sister should not become a well woman. The old stomach trouble is passed. She needs nourishing food, plenty of outdoor exercise, engrossing, enjoyable work, and—well, something that will make her think and act for herself."

"I am sure that I can promise to see that she has all of these," Elsie said with a smile. "The last named may be a little difficult to provide. Alice's long illness has led us to seek to shield her from every care."

"I understand. Miss Howard, your sister was displeased at what I said about art. That very sense of annoyance may help to rouse her by exciting her to make her work prove me to be in the wrong. By the way, she has an artistic taste and eye, but her fingers are not trained to carry out her vision. Promise me that she shall have a camera."

"A camera! Why I do not think that Alice wants one."

"Then it must be your and my work to make her want it. I will disparage the pencil as a representative of life, while you shall speak of the camera taking her out into the fields. It will give her what she needs—an absorbing delight in life; I know the camera's fascination."

"Well, it shall be made desirable to her in some way," Elsie said, rising from her chair. "If Alice can be restored to health, I will ask nothing more."

"She can be. I am to see her again next week."

CHAPTER VI.

It required some finesse to enable Elsie to keep the promise she had made Doctor Merdith. It was not that Alice was unwilling to have a camera; the longing for one had come to her as she had examined the pictures the doctor had shown her on the occasion of his visit to the farmhouse.

"'You dear dreamer, Elsie, I am not sure but that I was sent to Howard Farm to show you the one flaw in your plans'"

At first she refused to consider the matter. This was because she feared that Doctor Merdith would think that she had been converted to his way of thinking. Elsie saw that, but she wisely ignored it in talking with Alice.

"Let us have a camera; I am sure it will be great fun," she urged. "If I do not teach next year, as we have almost decided that I shall not, I must have some occupation, something besides my beloved books."

"But we do not know how to operate a camera. Neither do we know anything about developing and printing pictures."

"We can learn. I had a letter from Myra Ferris yesterday. She has promised to spend a month with us soon, and that dear girl knows all about photography, as she does about everything else. She will teach us. You must live outdoors this summer, Alice; you know I have already preached that."

"I know, dear. I will follow your advice, camera and all. Anything to come back to the world, a well woman."

So the camera was purchased. In reality it was selected by Doctor Merdith, although Elsie did not mention that fact to Alice.

Spring had given place to summer. Howard Farm was a place of busy activity from early morning until night.

Mary directed the affairs of the house, herself caring for all the milk. She had retained the position of organist at the church. A choir had been organized, and there was a weekly meeting for practise.

One hour each afternoon Mary Howard spent at the piano. Not only did her olden skill return, but once again the music thrilled her with passionate delight. She ceased to think of herself as old and useless. Dainty and becoming articles of dress were selected by her, and she moved about her work with a song upon her lips.

Alice had already deserted the wide couch where so many of her waking hours had been spent. She helped with the lighter household tasks, fed the chickens, and tried the new camera, studying printed directions, pending the arrival of Mrs. Ferris. That was not all. Alice ate heartily and slept as she had not for years.

As for Elsie she bade her pupils goodby with mingled regret and pleasure. She was needed at home. Notwithstanding the work there would be time for her to carry on her reading with renewed energy.

It was Elsie to whom Bert came for orders. It was Elsie who encouraged Mary's passion for music and watched over and inspired Alice. She did all this with cheery good-nature, albeit at times she was secretly a little despondent.

"I believe being made over is more enjoyable when you are not aware of the process," she said to herself at times.

The three sisters resolutely refused to sever their connection with Hattie. In the new home at Lenox there was a hired girl, and there was also much dissatisfaction and homesickness, although Mr. and Mrs. Hill denied both.

The Misses Howard made many visits to the Hill home, carrying cans of cream, baskets of eggs and rolls of butter. They took first one child and then another out to the farm for a week's stay. Gradually Tom's resentment began to soften, although he still assured his sisters-in-law that they would "see your foolishness in thinking that womenfolks could run a farm."

Jerome Dare brought the book of which he had spoken to Elsie. Her thanks were so cold and constrained that Mary lavished kindly attentions upon the caller, urging him to stay for supper.

The invitation was promptly accepted. Jerome made himself so agreeable that both the elder sisters asked him to come frequently.

It was the first week in July when Myra Ferris arrived at the farm. During Elsie's two years at college she and Myra had been the best of friends, and the friendship had never grown cold.

Myra had graduated from college, and very soon afterward she had married a promising young lawyer. His death occurred a year later. The young widow found herself dependent upon her own exertions. She taught music, worked in a newspaper office, went abroad as a companion for an elderly lady, and at that time was in the employment of a lecture bureau. Mrs. Ferris was a clever impersonator and gave interpretations of some of the best-known novels and poems.

"This is my vacation-time," she said to Elsie when on the evening of the day she arrived at Howard Farm the two were seated in a hammock on the front porch. "Now that means that I work on my new studies just six hours a day. The rest of the time I shall spend outdoors, in your company I trust."

"If this is your idea of rest what represents work to you?" Elsie asked, her eyes resting fondly on Myra's face.

"Work? My art is work, and I love it. Drudgery means the hustling from one place to another, living on trains and in hotels where sham takes the place of simple comfort. Yes, it is drudgery to rush and hurry, to cater to the public, but it is that divine thing—power—to stand before an audience and sway the people to your will, to make them laugh and cry."

"What are your new studies?"

"'The Little Minister,' where I make all things subordinate to bringing out the elusive, tantalizing character of 'Babbie,' 'Adam Bede,' 'The Right of Way,' and Browning's 'Saul.' Ah, it is in that last that I feel the touch of the master's hand."

For a moment silence fell between the two friends. Suddenly Myra looked up to say:

"Tell me about the change here. The atmosphere is charged with electricity; your sisters are both years younger; you, beloved, you look like a conquerer, and yet your conquest has not brought you your heart's desire."

"What a witch you are, Myra! It is not that I am disappointed in what I have done, but somehow what I have done makes me hunger for—I do not know what."

"Let the longing grow, Elsie; in its own good time your soul will speak in no uncertain tone. How is it that I find you three women alone?"

Briefly Elsie narrated the circumstances that had led to the change in their household arrangements. Myra nodded her head softly.

"Elsie, you have done the best deed of your life. Providence sent that blundering professor here, for had not Mr. Hill sold the land he would have stayed. What is his name—the professor's I mean?"

"His name is Dare, Jerome Dare. I believe he was connected with Audry College."

Myra whistled. "Excuse me, Elsie, but during my vacations I allow myself the pleasure of being surprised. Professor Dare is one of the brightest lights of Audry College. Indeed he is honored by all the educational world. You must give me a chance to meet him. Now, Elsie, why that frown?"

"Because I do not like Professor Dare. However he is one of Mary's favorites, and you will have an opportunity to meet him, as she has a fashion of inviting him to tea. Myra, the change in my sisters is such a pleasure to me."

"It is wonderful, even more so in Mary's case than in that of Alice. When I was here a year ago your oldest sister needed only a cap to make her the typical grandmother of the story of thirty years ago. Now she has come into her own. The world of friendliness, philanthropy, books and music is all before her. I would not be surprised if some good man fell in love with Mary, and his passion woke a response in her breast."

"Do not say that." Elsie spoke sharply.

"Why not?" Myra asked, looking out over the moonlit fields.

"It—it hurts, something as if you had said it of my mother. In all my plans for the Howards, Myra, we three are to stay on here, together."

With a merry laugh Myra Ferris threw her arm round her friend, drawing Elsie down among the cushions.

"You dear dreamer. Elsie, I am not sure but that I was sent to Howard Farm to show you the one flaw in your plans. When you have made over the Howards, when each one of you women enters into her rightful place in the world, then each one will be independent. You make over your sisters, Elsie, but when your work is really done, you cannot refuse each one the right to plan for herself."

Myra's words rang unpleasantly in Elsie's ears. Surely they were not, they could not be true. No new and individual interests would ever divide the futures of herself and her sisters.

Myra's visit was a pleasant time for all. The young widow was most versatile. She helped Mary with her music, giving the spinster two lessons a week during her entire stay at the farmhouse. She instructed Alice in the use of the camera and roused the invalid's interest in her new occupation to fever heat. Myra helped Elsie plan a course of reading for the winter, and together they made out a list of twenty-five new books to be added to the Howard library.

Then the guest was interested in the neighborhood affairs. She accompanied her hostesses to church and made friends with Mr. Reed. Alice had so far regained her health as to be able to drive to Lenox and visit the office of Doctor Merdith. Myra accompanied her, and the physician became so interested in the account the two gave of the work of the camera that he drove out to the farmhouse to inspect the same. Then during

Myra's visit the Howards entertained the Farmers' Club, of which they had become enthusiastic members.

Jerome Dare was a member of the club. Often his frankly confessed ignorance of farming matters brought upon him a hearty laugh, but in it Jerome joined. In many ways he was most helpful to the organization. His wide knowledge of the world, of men, and of books was always at the disposal of his neighbors.

"I propose that we take advantage of the excellent traveling libraries offered by our state library," Jerome said during that meeting at Howard Farm. "I have circulars and lists of the books here. We can obtain fifty volumes, and keep them three months at an expense of a dollar and a quarter."

After some discussion the matter was put to vote, and the motion was carried. Elsie was giving the business only a divided attention, and she was aware of a feeling of vexation when she learned that the library was to be placed at Howard Farm, under her control.

"I do not want to bother with it," she said to Myra as the two stood at the gate, watching the last of the guests drive away. "What books I need I will buy, and I should think Professor Dare could do the same."

"There may be some in your community who cannot. These books will be of benefit to the children. Elsie, I don't just understand you. The Howards, as you see them in the future, are interested in their neighbors. You are, too. I believe the reason you frown upon this project is because it was proposed by Professor Dare."

"I do not like the man. He is so sure of himself."

A faint smile curved Myra's lips as she asked, "Do you remember that our teacher in mathematics at college used to lay that same charge at your door? However, you are going to have a chance to know Professor Dare better. He has invited us all—you three sisters and myself—to his home for lunch the day after to-morrow."

"To his house! The idea! I shall not go."

"I do not see how you can decline," Myra said, her gray eyes twinkling mischievously. "You know I leave Howard Farm the next day, and this lunch is in my honor. I accepted for you. You must go."

CHAPTER VII.

Myra was right; Elsie had to accept the invitation to Jerome Dare's home. All the excuses that she could frame seemed so trivial that to have insisted on them would have made her refusal appear to be an expression of personal dislike. Had the Howards been alone, Elsie would not have cared for that, but the twinkle in Myra's eyes made her friend decidedly uncomfortable.

It was a delightful August day when the four ladies descended the slight hill to Mr. Dare's home. The old-fashioned white house had green blinds and a long, narrow front porch. The yard was dotted with dusky cedars and fir trees. Along the porch grew a tangled mass of nasturtium vines which were starred with their brilliant blossoms. The grass was closely cut, and the frequent rains of the summer had kept it fresh and green.

Their host came down the steps to greet them.

"This is a great pleasure," he said cordially. "I have received so much hospitality at your hands, Miss Howard, that I began to fear that common politeness must forbid my accepting more, unless I had an opportunity of returning it."

As he spoke he led the way into the house. In the old days the sisters had been familiar with the place. They knew that Dare had made some alterations, but they were surprised at the transformation wrought.

The door from the porch opened directly into what had once been the family sitting-room. A sleeping-room had been opened from this. Jerome had removed the partition between the two, throwing them into one, a room fourteen feet by twenty-six.

A hardwood floor had been laid. Upon this was spread a few rugs in rich, subdued coloring. The walls were tinted a soft gray, making a harmonious background for many photographs and sketches. A tiled fireplace occupied one end of the room. There was a wide couch, comfortable chairs, a roll-top desk, and, ranged round the wall, low, well-filled oak bookcases.

"Do you really like it?" Jerome exclaimed as Alice's hearty praise was repeated. "I am glad to hear you say that it looks like home, but it is only a man's home, after all."

As the guests stepped into the old parlor, which Jerome used as a sleeping-room, Myra whispered to Elsie:

"I believe he could buy what books he wants. The number of books in those cases would not seem to indicate that he proposed a traveling library solely on his own account."

Elsie's face flushed. She made no reply. Upon her return to the other room she sat down by a window and looked absently out upon the lawn.

The other ladies examined the pictures upon the walls and the books in the cases. The host explained his present mode of living.

"I could not stand the life at Long's. No, Miss Howard, it was not so much the food. I do not care so greatly for what I have to eat as I do how I have it. For the last ten years I have been spoiled by Flip. He is the negro whom you may have heard I now have here with me."

"I have heard of him," Mary Howard said. "He told our man-of-all-work, Bert, that you saved his life, and that he belonged to you, body and soul."

Jerome Dare looked a little embarrassed. His eyes swept the circle of faces. All were turned eagerly to him except that of Elsie.

"It was during a visit to New Orleans that I ran across Flip. I found him ill, dying I feared, and I—why I only saw that he had care, nursing him myself, because no one else could be found to do it. His ignorant neighbors thought that, because the poor lad was a hunchback, he was in league with evil spirits. When Flip recovered, I brought him home with me. For ten years he has been my general factotum. I am not sure but in one sense Flip is right in saying that he belongs to me, and I am not unmindful of the obligation that this condition of affairs imposes upon me."

"You left him behind when you first came here?" Alice asked.

"Yes, I left him in charge of the house at Audry, where he has long made me a comfortable home. Somehow I feared Flip would be unhappy outside of a city, for he knew nothing of country life. It was not alone my need of Flip's ministrations that caused me to change my mind; the poor fellow was grieving his heart out, because of our separation. He is truth and fidelity personified. Ah, here is John."

Elsie had already seen Doctor Merdith alight from his carriage at the gate. Jerome Dare rose as he said:

"I asked John to join us at lunch. Excuse me while I go to meet him. I think I told you, Miss Alice, that Doctor Merdith and I were college chums, and that his presence in this vicinity was one of the things that induced me to locate here. John Merdith is a noble fellow. Years ago the death of a girl wife made his home and his heart desolate, but he has put aside his sorrow and lived for his work."

He left the room to join his guest. No sooner was he gone than Myra nodded her head.

"Professor Dare is all I ever heard he was, which is saying a good deal. I wish he was my neighbor; I should partake of his hospitality on every possible occasion."

* * *

The dining-room of the house was large. There, too, a hardwood floor had been laid, and the walls were covered with dark-green ingrain paper. A magnificent palm stood between the two windows, which were filled with trailing vines.

The highly polished oak table was uncovered. The silver was massive and of quaint design, while the egg-shell-like china, with its green fern decorations, pleased Alice's artistic eye. In the center of the table stood a great bowl of sweet-peas, and at each plate lay a long-stemmed Jacqueminot rose.

The meal was daintily served. Bouillon was followed by beaten biscuits, fried chicken, lettuce salad, celery, and plum jelly. Then came blackberries and cream, pineapple sherbet, cake, nuts, raisins and coffee.

They spent a merry hour at the table. After the meal was over Miss Howard, under Flip's patronage, was invited to inspect the pantry and kitchen improvements that had been included in Jerome's remodeling of the house. Myra, Alice, and Doctor Merdith went out on the lawn. Elsie, who thought herself alone in that part of the house, stood before one of the bookcases, lost in enjoyment of the volume which she handled with gentle, caressing touches.

"It is easy to see that you are a book-lover, Miss Elsie; your touch tells that," and Jerome stood at his guest's side. "I wish you would glance over my cases and take home with you anything you fancy."

"Thank you," Elsie said coldly. Inwardly she was enraged because of the hot blood coloring her cheeks. "You are very kind, but I have little time for reading in the summer."

"Now, Miss Elsie, you are a more conscientious farmer than I am," Dare said, sitting down on the arm of an easy chair. "Jem, my hired man, says the gossips over at the village store wonder how any man can sit down and read a book when his corn needs cultivating."

"Our farmers read much and wisely," Elsie said in an icy tone. "However I believe they usually do it when their corn does not need cultivating."

Jerome Dare bit his under lip. Why was it that he seemed always to say the wrong thing to this one of the Howard sisters?

However, he did not heed her mocking tone. Leaning a little nearer he said:

"Mrs. Ferris has told me of your winter plan for reading. I am sure I could be of help to you, especially in your study of German. Will you not allow me to give you lessons in that language, and also what other help I can?"

"You are very kind, Professor Dare, but I—I have no right to trouble you."

"It will be no trouble," he hastened to say. "Teaching is a delight to me; I find myself longing for the old work. Besides I want to help you."

He was not just at ease. Elsie resented his use of the word "help."

"Again I thank you, Professor Dare, but I think it will be best for me not to trouble you. My reading will be too disconnected to meet with your approval. Yes, Mary, what was it you said?" and she turned to her sister who had just entered the room.

"'The gossips over at the village store wonder how any man can sit down and read a book when his corn needs cultivating'"

CHAPTER VIII.

Doctor Merdith took Mary and Alice home in his carriage. Myra and Elsie walked, going slowly along the tree-bordered highway, for they had much to say to each other on that last day together, despite the month's companionship.

"What a charming home Professor Dare has!" Myra said musingly. "Now that he is freed from that enforced attitude of superiority which a college instructor seems to think he must maintain towards all young women, he will be looking for a wife. His home is charming, but I am sure that he feels that it needs the distinctive feminine touch that not even Flip, with all his devotion, can give"

* * *

The next morning Myra Ferris left the farmhouse. The sisters kept on with their usual occupations, varying their toil by many simple pleasures. Alice had almost ceased to consider herself as an invalid. As yet her two sisters allowed her to attend to but few of the household tasks, and those few were the lightest.

Alice lived outdoors. At first she had rejoiced when she was able to leave the porch for the ample grounds. Then she spent much time in the orchard, renewing her acquaintance with the nooks she had loved and frequented in her girlhood. Next she grew strong enough to visit the distant fields and even the woodland.

On all these excursions the camera was her companion. Alice had resolved to perfect herself in the knowledge of photography.

As gorgeously-colored autumn gave place to austere winter, Alice Howard clung to her new ideals and pursuits. Resolutely she turned her back upon all thought of her invalid past.

[TO BE CONTINUED NEXT ISSUE]

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Mr. Blossom

THE venerable Dr. Lyndsay was the oldest and best-respected man in Thrushton. He was tall, spare and cadaverous; indeed, there was so little flesh on his attenuated frame, and so little hair on his smoothly polished bald head, that it was not a difficult matter for a stranger on entering his office for the first time to deceive himself into the belief that he had seen a well-dressed skeleton.

Dr. Lyndsay was beloved and respected as a philanthropist, and to those who were accustomed to seeing his hollow eyes, sunken cheeks and parchment-like skin drawn very closely over his somewhat prominent set of false teeth there seemed nothing unusual in his appearance. He had grown feeble, and been obliged to resign the greater part of his practise to a younger man.

As time passed Dr. Lyndsay's tall, spare figure was seen less in the well-known office, and young Dr. Beeker supplied the Thrushtonites with the necessary medical attention. In a small room adjoining the main office there had stood for a number of years the skeleton of a man; this necessary, or otherwise, adjunct was called Mr. Blossom. Young Dr. Beeker was particularly fond of Mr. Blossom. He carefully dusted and cared for this gentleman with his own hands; a cigar was jauntily thrust between his grinning teeth, an elaborately embroidered smoking-cap adorned his shining skull, and usually a bouquet of flowers was held in the bony fingers.

As Dr. Beeker sat before the desk in a somewhat irritable frame of mind one gloomy afternoon the door opened and a street urchin called out, "Violets! Sweet violets! Buy a bunch, sir?"

The young doctor remembered that Mr. Blossom had not been supplied with flowers for a week, so he said, "I will take a bunch! Just go into that room and put it in the vase on the table."

The boy entered the room in haste. A moment later the door closed with a bang, and the shock-headed boy, with wild, staring eyes, shot past the astonished physician, scattering the sweet violets about the office floor. He did not ask questions, nor wait to receive remuneration, but sought the nearest means of exit. Dr. Beeker looked up in astonishment, a ray of intelligence gradually gleamed into his bewildered mind, then he broke out laughing. He was still laughing when the venerable Dr. Lyndsay appeared, and the occurrence was explained in detail.

The next day the philanthropic old doctor appeared at an earlier hour. He was sorry that anyone should be frightened in his office, and determined to try and find the boy and explain.

Dr. Beeker was sharply reprimanded, and set to watch at the window for the youth with the violets. Toward evening he was rewarded. Dr. Lyndsay stood in the door awaiting his arrival.

"Come here, my boy; I want to speak to you," said the kind old man; as he motioned the urchin to draw near.

The boy gave a startled look, and started to run.

"I want you a moment, son," the old gentleman repeated. The boy reached what he considered a safe distance from the spectral form, and shouted back, with a strong nasal intonation, "Naw yer don't! I seen yer yesterday with yer clothes off!"

Dr. Lyndsay's emaciated hand was slowly raised to his bald head. He thoughtfully rubbed the shining surface a moment, and silently withdrew.

IDA E. R. SMITH.

◈

Great Treat in Store for Farm and Fireside Readers

The opening chapters of the greatest serial story FARM AND FIRESIDE ever published will appear in the November 15th issue. The story has been secured at great expense, and it is going to prove a rare treat for our patrons and friends. We will tell you more about it later, but in the meantime be sure that your subscription is paid up, so that you will not miss the issue.

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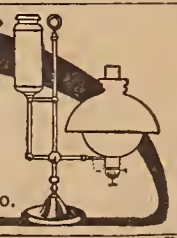

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Hallowe'en Fun and Frolic

WHICH WILL BE THE SHORTEST WHEN THE TIME IS UP?

WITH A FRIGHTENED BACKWARD GLANCE SHE SEES AN IMAGE IN THE MIRROR

THREE TWIRLS AROUND THE HEAD, AND BEHOLD HIS INITIAL!

None of the festivities appropriate to the harvest season is more eagerly looked forward to by some of us—not so old as to have become indifferent to certain possibilities and probabilities—than Hallowe'en, which bids a merry farewell to old October and ushers in the last of the autumn months. The methods of celebrating this special holiday have been culled from far and near, and one may make an excellent selection from the vast number of tricks and games that have afforded fun since so long ago that no one quite knows when.

A curious festival is this of Hallowe'en on the vigil of All Saints' Day. Of course, everyone knows that witches and elves and all the strange people of that land of superstition dear to the young and the ignorant are wandering about this prosaic old earth, glad to shake off the sleep of the twelvemonth and show their pointed caps and hoary beards.

Just why the little people consent to lift for us the mysterious veil on that night it is hard to tell. Perhaps they, too, are playing "tricks," and that the "true love" seen in the mirror or betrayed in the whirling apple-peel or foretold by the flickering candle is but a hoax, and not really the lucky man after all. But whether or no, the playing of the tricks is universally voted "great larks," and no well-ordered household of young people would permit the thirty-first of October to pass unnoticed.

To an ideal Hallowe'en party a very necessary setting is an old-fashioned barn with lofts and stalls, and perchance at the back an orchard of gnarled apple trees casting weird shadows in the moonlight; but if this is impossible, the kitchen's the place. Candles, apples and nuts are undoubtedly the most favorable media through which the witches may acquaint us with our future fates. This is one of a young girl's favorite methods of learning the name of her future husband: She selects as many candles of equal length as there are men in her acquaintance whom she considers among the "probabilities," and after naming each one she lights them, and allows them to burn five minutes. The candle that is the shortest at the end of the stipulated time indicates the chosen lover.

Actually to see the man whose fate you are to share is certainly worth attempting, and it is said on good authority that this result has really been brought about by the following method: You must enter a dark room backward, bearing a lighted candle, find your way to a mirror, and just as you reach it glance over your shoulder at its surface, and there you will see the reflection of your future husband. A simpler method is to peel a sound red apple straight around from eye to stem without breaking the skin, and after twirling the peel three times around your head, toss it to the floor, and behold *his* initial.

WATCH THE MIRROR ON THE STROKE OF TWELVE

Would you know whether or not you are to be married within the year? Then light a candle, place it upon a table, sit in a chair before the table, blindfolded and with your hands behind your back, blow three times, and if you succeed in extinguishing the flame your matrimonial fate is determined—the day has only to be named.

A mirror is again brought into use when two girls, just at midnight, gaze steadfastly into its depths to behold the face of the true love of one of them, which is sure to be reflected as the clock strikes twelve. It is a strange fact, but true, that only one of the maidens will see a reflection, and it is for her that fate has consented to lift the curtain.

A time-honored frolic is "bobbing for apples," but because of the unbecoming effect of the immersion of one's complexion and coiffure in a tubful of water, a change in the method has come about and now the result is accomplished by suspending the fruit by a string from the ceiling or door-frame. This is sometimes varied by suspending a stick by a string tied in the middle, an apple being placed at one end and a lighted candle at the other end. By twirling the stick around, it becomes a difficult matter to catch the apple with the teeth and not the candle. One of the most tempting Hallowe'en tricks is the cake which usually forms a regular part of the evening's refreshments. This cake, which contains a ring, is cut into as many pieces as there are guests at the party, and the ring naturally falls to the lot of the first to be wed.

The "nut tricks" are many, and of course great fun. Try placing two nuts on a shovel or on the hearth near the blazing fire, and giving them the names of a man and a woman, and watch the result. If the two kindle and burn quietly together, the pair should marry, and will be happy; if one pops and jumps, the nut's namesake is unfaithful; if one burns quietly, it is a sign of faithful devotion.

The prettiest and most appropriate way of lighting a home for a Hallowe'en party is by Jack-o'-lanterns. Even in a city home illuminated by gas this may be done very effectively by removing the globes from the gas-jets and substituting small grinning "Jacks."

THREE BLOWS—AND OUT!

THE FATEFUL CAKE CONTAINING THE RING

THE APPLE OR THE CANDLE?

"Jump in and Ride"

To the dusty way-worn traveler who is trudging down the road
With halting gait, and bending underneath some heavy load,
There's cheerful information in the news, he will confide,
That's wafted from some passer-by, in this, "Jump in and ride!"

It may be some good farmer with old Dobbin to a cart
With running-gears quite creaky, looking soon to drop apart;
But it never takes a moment for the traveler to decide,
At the invitation given him to "Jump in and ride!"

It may be some fine equipage all fashioned up to date,
Or automobile spinning at a mile-a-minute rate;
Who stops to look a second at the finery or pride?
When he is tired with walking look at him"Jump in and ride!"

Then let us as we journey down the country lane or road
Forget not the unfortunate who bears a heavy load
And travels on Shank's ponies—don't you know the world is wide?
Extend to him a helping hand, and say, "Jump in and ride!"

ALONZO RICE.

Around the Fireside

—HELEN◇MORTIMER—

To Restore Name of Jeff Davis to Famous Cabin John Bridge

THE press of the country has again brought Cabin John Bridge into the limelight. This famous old structure, located at one of the beauty spots near Washington, D. C., has a history unique and interesting. The cause for the present public attention is the announcement that the name of Jefferson Davis is to be positively restored to this greatest of stone arches.

Although the subject is an old one, yet, the true narrative of the mutilation is not generally known.

The erasure of the name of Jefferson Davis has been variously ascribed to General Montgomery C. Meigs, chief engineer of the construction of the aqueduct; Simon Cameron and Mr. Stanton, secretaries of war. The order for the erasure of the name was given by Caleb R. Smith, Secretary of the Interior, in June, 1862. Recently, William R. Hutton, who was an engineer in the aqueduct construction, and finally became chief engineer of the work, has given the following account of the mutilation:

"In June, 1862, at the request of the Secretary of the Interior, Caleb R. Smith, to whose department the aqueduct has just been transferred, I accompanied the Secretary and a number of members of Congress on a tour of inspection of the aqueduct, by way of the canal. Opposite Cabin John, several of the party disembarked and walked to the bridge to obtain a nearer view. Returning in hot haste, Galusha Grow, of Pennsylvania, said: 'Do you know that that rebel Meigs has put Jeff Davis' name on the bridge?' Turning to me the Secretary said: 'The first order I give you is to cut Jeff Davis' name off the bridge.' A few days later I was appointed chief engineer of the aqueduct. Not taking seriously the Secretary's remarks, I did nothing in the matter. A week later, Robert McIntyre, the contractor, returned to resume work upon the bridge, and called to pay his respects to the Secretary. The Secretary said to him that they had put Jeff Davis' name on the bridge and he wished he would cut it off. 'With great pleasure,' was the reply of the contractor, and his first work was to remove Davis' name."

It was the proud boast of Washingtonians that they had the Cabin John Bridge, with its imposing two-hundred-and-twenty-foot single span, the longest stone arch in the world. This boast was well founded at the time of the construction of the bridge, and endured for years; but according to "Le Génie Civil" (October 4, 1903) there are two longer stone arches in the world, though Cabin John stands imperial in the United States. These longer arches are the Luxembourg Bridge, built in 1899-1903, with a span of two hundred and seventy-five feet, and the Marbegno Bridge, recently completed over the River Adda in Italy, with a span of two hundred and thirty-six feet. There was a bridge at Trezzo over the same river with a longer arch than the Marbegno Bridge, but this was destroyed. So that, according to "Le Génie Civil," Cabin John Bridge now ranks third among the world's longest single-span stone bridges.

—HELEN◇MORTIMER—

Things to Do this Month

UP-TO-DATE farmers and housewives are always looking ahead, doing things to-day that will return rich harvests in due season. "Suburban Life" reminds us that this is the month to plant bulbs which will flower early next spring.

To make cold frames for early use the coming season.

To clean up and manure the asparagus beds.

To set out new asparagus and rhubarb beds.

To pot geraniums, begonias and other plants for blooming in the house.

To examine the bees and feed them if they have not sufficient winter supplies.

To get the pullets into winter quarters.

To feed cut bone liberally if the pullets have not already begun to lay.

To dress off the hens which are too slow in recovering from the molt.

Fall plowing is an excellent practise in gardens where there are a great number of cut-worms and other pests. It is also a good plan if the soil is heavy, as the alternate freezing and thawing will help to pulverize it. If a heavy coating of manure is plowed in at the same time, the benefit will be twofold.

Dahlias may be kept blooming into the month of October if they are covered with papers at night.

Particular care must be exercised in picking winter fruit, for even a slight bruise will impair the keeping qualities. Pick the apples or pears into a basket or bag and transfer them carefully to the barrel or bin where they are to be stored.

Choice fruits can be kept a long time in perfect condition by wrapping each specimen in paper.

—HELEN◇MORTIMER—

The Harvest the World O'er

JUST as there is sunlight shining somewhere and darkness somewhere else, says the "Scrap Book," so is there a procession of seed-time blossom and fruit around the globe which never ends.

January sees harvest ended in most districts in Australia and New Zealand, while the people of Chile and other countries of southern South America are just beginning to reap the fruits of their toil.

Upper Egypt and India begin and continue harvest through the months of February and March.

April enlarges the number with harvest in Syria, Cyprus, coast of Egypt, Mexico, Cuba, Persia, and Asia Minor.

May is a busy time in Central Asia, Persia, Algeria, Morocco, southern Texas, Florida, China, and Japan.

June calls forth the harvest in California, Oregon, southern United States, Spain, Portugal, Italy, Hungary, Roumania, Turkey, Danubian States, southern France, Greece, and Sicily.

July sees harvest in England, Nebraska, Switzerland, Iowa, Illinois, Indiana, Minnesota, Upper Canada, northern France, Germany, Austria, and Poland.

August continues the gathering in the British Isles, France, Germany, Belgium, Holland, Manitoba, Lower Canada, Denmark, and Russia.

September rules northern Scotland, southern parts of Sweden and Norway, as well as the cold islands of the North Sea.

October is the harvest month for corn in America and for hardy vegetables in northern Sweden, Norway, and Ireland.

In November harvest times begin in South Africa, Patagonia, and South Australia.

CABIN JOHN BRIDGE

The longest stone arch in America, located near Washington, D. C. Through the conduit enclosed by this bridge passes all the water-supply of the national capital

President's Trip to the Isthmus

PRESIDENT ROOSEVELT will start for Panama immediately after election day, and is expected to reach the isthmus by the 13th of the month. The Isthmian Canal Commission will be there at the time of the President's visit, a meeting of the commission having been called for November 15th.

Arrangements have been made to show the President what progress has been made and to point out to him the future work, including the numerous problems which are now coming up and causing so much anxiety.

No one connected with the commission has any appreciation of the many questions which would have to go to the engineers before any permanent work could be done or even the work mapped out. It is found, for instance, that it will be difficult to locate the dams and locks which have been planned. The additional borings which are now going on show that much trouble will be encountered in getting suitable foundations. The country is of volcanic character, and no sooner is what is apparently rock bottom struck than further borings disclose a bed of sand. It is realized by the engineers that it will be necessary to obtain the most stable foundations for the walls of masonry, which are the largest and heaviest in the world. It will not do to have part of the foundation of rock and the rest on sand, for instance, and it is now the work of the engineers to find a site for each lock and dam structure which will afford protection against destruction when the enormous strain is applied. From the information obtainable by the commission at this time, from its representatives in Panama, it is evident that the engineers are confronted with some grave problems.

—HELEN◇MORTIMER—

Trepoff's Life is Ended

GENERAL DMITRI TREPOFF, commandant of the Russian Imperial Palace, died during the past month of natural causes. His death robs the Russian anarchists of a long-intended victim. Indeed, for many years Trepoff has been living in the shadow of death. Time and time again plots to kill him have failed, and he was perhaps the most hated of those who had to do with suppressing nihilistic disturbances.

Like his father before him, Trepoff was a police master, with all that the name involved in Russia, and the story of father and son is full of dramatic incidents. The elder was a foundling. Who his parents were was never known. He was found one morning as a baby upon the doorstep of a German family, by whom he was taken in and playfully given the name of Trepp-hof (German for door-step) for the place where he was found. When he entered the Russian service as an agent of the Third Section, he made the name Trepoff. The father soon distinguished himself as a member of the secret police. He was skilful, intelligent and courageous, and his advance was rapid.

Dmitri received his education in the exclusive page corps, and followed his father's footsteps in the police department. With a better education and even more firmness and resolution he rose quickly, and after acting as police master at various provincial towns he attracted the attention of Sergius, then Governor General of Moscow and the most reactionary of the grand dukes, and by him was named police chief of Moscow.

When Grand Duke Sergius was assassinated Trepoff was named Governor General of Moscow. At that time revolutionary agitation was rampant in the capital, the situation called for the strongest man in Russia, and Trepoff was summoned to St. Petersburg, received the command of the Imperial Guard and was made governor general of the city. He made his residence in the Winter Palace, and became in fact, if not in name, dictator of Russia. Anarchy prevailed when he arrived. An uprising on a large scale was momentarily expected, and thousands had fled from the city, but with Trepoff in power the aspect changed. Troops filled the streets, and dead walls were placarded with notices that the troops had instructions to use no blank cartridges, and that the slightest disorder would be suppressed without mercy. Under his iron hand the city became quiet.

In his dungeon-like room in the center of the palace, where no bomb could reach him save by shattering a dozen walls, General Trepoff issued orders, received reports and imprisoned this man and exiled that one. At night he made excursions through the city in a Red Cross ambulance to inspect his troops. His personal courage was beyond question. He had almost a contempt for death. He said a few days after he assumed the dictatorship:

"I am no fool to be potted in the street. I have work to do and I propose to do it. I have given my word to my imperial master to maintain the tranquility of the city, and I will answer for the preservation of order with my life."

—HELEN◇MORTIMER—

Patriotism and the Flag

A FEW weeks ago an Englishman was arrested and fined thirty dollars on the charge of hissing the American flag in a New Jersey theater. The newspapers made much ado about the matter, but few of them took pains to tell all the particulars of the case, says "The Maple Leaf."

The performance at the theater included a cheap humorous song by a negro, in which reference was made to the alleged remark of Prince Louis of Battenburg, that the British fleet he commanded had guns enough aboard to blow New York out of the water.

Of course Prince Louis never made the remark, but writers of popular songs seldom investigate the truth of reports. More often they seek only an opportunity to stir up that crude sort of patriotism to which a certain class of Americans is peculiarly susceptible. The flag was waved, the people cheered; and when the Englishman hissed, he had about as much chance as a snowball in a doughnut kettle.

If the man hissed the flag, he got only what he deserved; but if, as he declared, he hissed not at the flag, but the insulting reference to his own countryman, a member of the royal family, it puts another light on the matter.

This, at least, is true: The ways in which the flag is used for advertising purposes are far more numerous than those which are now forbidden by law, and some of these more subtle ways are quite as objectionable. To make the American flag an accessory of a negro song in a variety show, for the sake of raising a laugh, is just as bad as using it to advertise shoe polish or whisky.

—HELEN◇MORTIMER—

Bargains

IT isn't usually a good plan for the thoughtful housewife to buy bargains for her husband. Nor is it likely to prove acceptable for the husband to do shopping for the wife, unless fully instructed relative thereto, as evinced from the following, credited to the Kinsley "Mercury."

"My dear," says the thoughtful husband, entering the house with a huge package in his arms, "you remember last week when you secured such a wonderful bargain in shirts at forty-eight cents and neckties at three for a quarter for me?"

"Yes, love," says the fond wife.

"Well, don't think I didn't appreciate your thoughtfulness. See, I have bought something for you. I noticed some beautiful green and yellow plaid goods in a show window on my way home, and bought you eighty yards of it at four cents a yard. The clerk said it was a great bargain, and it will make you enough dresses to last you two years. Why! she has fainted!"

—HELEN◇MORTIMER—

If you want to make the acquaintance of the strange character of Helen Mortimer see that your subscription is paid up, and then watch for the November issues of FARM AND FIRESIDE.

The Housewife

Wicked Mothers

BY HILDA RICHMOND

YES, that is the right word. There are many mothers, too many, who are positively sinful. They are joined to their idols and, in many cases, never can be persuaded to give them up. The most dangerous sins in the world are those that come under the guise of virtues, and the wicked mothers often think they are the best in the land. The results of their sins are apparent in every community.

In a certain home the six-year-old tyrant ruled everything and everybody with a rod of iron. His wishes were consulted and his moods obeyed by father, mother and aunt. The grown people privately wondered how

SQUASH GEMS—Melt one rounding tablespoonful of butter, add to two well-beaten egg-yolks; add one cupful of sweet milk, one half teaspoonful of salt, one half teaspoonful of cinnamon, one cupful of sifted winter squash, one very scant pint of flour, one teaspoonful of baking-powder, stiffly beaten whites of two eggs last; fill buttered molds two thirds full, bake to a delicate brown; unmold; serve hot with hard sauce beaten to the consistency of whipped cream.

they could bribe him to go to school in case he refused to start, for the law in the city set the age, and saw that every child was in school at the proper time, but to their surprise he was eager to start when the opening day drew near. Most teachers can predict what happened. That small bully was a model scholar, gentle and teachable, but at home he still continued to rule. He knew the limit of his authority and kept within bounds. Now who will say that mother was not wicked to allow such a state of affairs? From babyhood he was allowed to strike her in the face, and she boasted, actually boasted in his presence, of his high temper. He could kick and scream and be saucy whenever he pleased, and the mother considered herself kind and indulgent. She never realized, even after self-indulgence and dissipation cut him off in youth, that she was in the least to blame. The brief hours in school, when he was forced to obey, were not sufficient to counteract the home influence, and he fell into temptation early in life. He often said he loved the teachers who made him obey the rules more than his mother, in spite of her apparent kindness.

Another mother always told her daughters not to play with children who dressed better and had more comfortable homes than she and her husband could provide. "They will only make fun of you and criticize the things we have in our house," she said about different girls in the neighborhood, so the girls rejected all advances toward friendliness from their mates who appeared more prosperous than they. To this day those daughters are working to overcome that false impression. It taught them to be on the lookout for slights, to distrust their friends, to shun pleasant companions, and to be keenly conscious of their clothes and surroundings. The mother always insisted that they treat poorer children with the utmost courtesy, but she never for a moment allowed them to think other parents might be teaching their daughters the same idea. Better have a child imposed upon hundreds of times than teach him to be suspicious of everyone with whom he comes in contact.

And haven't you seen mothers who expected their children to outgrow bad table-manners? I know a number of unfortunate little people who are never asked to parties and picnics with their mates simply because they behave shockingly at the table. Their little hearts are

CHICKEN A LA CREOLE—Cook one cupful of rice twenty minutes, drain; add to rice one tablespoonful of butter, one teaspoonful of salt, one tablespoonful of browned onion, two teaspoonfuls of curry-powder, two teacupfuls of strained tomato-pulp; fill cleaned chicken two thirds full, sew up vents; lardoon the breast with salt pork; simmer until tender; serve at once with green corn broiled over hot coals and brushed with melted butter; dust with salt and pepper.

wounded and they cannot understand why other children have such lovely times, but there seems to be no remedy. These poor children have never been taught to keep themselves and their surroundings at the table clean, and, rarely eating away from home, they know nothing of what is expected of them. It surely is a sin to deprive children of pleasure and make them bitter toward persons who slight them. No matter how busy you are and how hurried, you have no right to allow carelessness at the table, for your children will suffer if you do.

The mothers who do everything for their children are making a grave mistake, if not actually committing sin. It is depriving a child of his rights to deny him a share in the work of the home. Perhaps it is easier for the mother to mend the garment herself than to teach the daughter to do it, but someone must teach the girls if they are to be happy and useful later on. When I hear foolish mothers bragging that their daughters cannot even sew on their own buttons, I feel sure that later in life the daughters will reproach them for their neglect. Sturdy, self-reliant men and womanly, helpful women are not developed in homes where everything in the way of work is kept from the children.

We shudder when we read of cases of extreme cruelty to children, and wonder what some mothers can be made of. "I am thankful I brought up my children the right way," said a mother complacently. "They can never say they didn't have a good mother and a happy home." If having their own way means that the home is happy, then these selfish, impolite young people have it, and the mother really enjoys being a slave to them. There are other forms of cruelty besides beating and starving, and the mother who sends out future criminals must share the blame. If boys and girls are not taught in the home to be self-sacrificing, cheerful, obedient, tidy and truthful, where will they learn these important lessons? A sinner who frankly admits his guilt always does less damage than the one who professes to be a saint. Be honest with yourselves and with your children, even though it may mean a complete upsetting of your present plans and ideas. And above all things, don't take pride in the shortcomings of your boys and girls. You may be sure their lives will speak louder than any words of yours of their home-training.

◈

Cauliflower

THIS vegetable a few years ago was a luxury; it is now cultivated by nearly all market gardeners, and is within the means of all housekeepers. It is a most delicious vegetable, when properly cooked, and vile when improperly cooked, which generally means when overcooked.

Remove all the large green leaves and the greater part of the stalk. Put the head down in a pan of cold

CHILLED MUSKMELON—Scrape seeds and soft membrane from ripe melons, put into quart measure and fill with cold water, stand one half hour. Drain; add enough water to make one quart, juice of one lemon, one cupful of sugar, one teaspoonful of sherry; freeze to a mush; fill chilled melons when ready to serve.

water which contains to each quart a teaspoonful of salt and a teaspoonful of vinegar. Let it soak in this water an hour or more. This is to draw out worms, if any should be hidden in the vegetable. When ready to cook the cauliflower put it into a large stewpan, stem end down, and cover generously with boiling water. Add a tablespoonful of salt and cook with the cover of the saucepan partially off, boiling gently all the time. A large, compact head will require a full half hour, small heads from twenty to twenty-five minutes. If the flowers are loose the heat penetrates to all parts quickly. When compact a little extra time should be allowed for the cooking, but the time must never exceed the half hour. The cauliflower begins to deteriorate the moment it begins to be overcooked. Overcooking, which is very common, can be told by the strong flavor and dark color. It makes the vegetable not only unpleasant to the eye and palate, but indigestible also. If this vegetable must be kept warm for any length of time, cover the dish with a piece of cheese-cloth. In hotels and restaurants it is better to blanch it, chill with cold water, and then heat in salted boiling water when needed.

MARIA PARLOA.

◈

Reheating Potatoes

COLD boiled, steamed, or baked potatoes may all be utilized in savory dishes. In reheating potatoes the following things must be kept in mind: The potatoes must be well seasoned to make them savory, they must be heated to as high a temperature as possible without burning them, and they must be served very hot. The cold potatoes may be sliced or be cut into small pieces, seasoned with salt and pepper and browned in a little savory drippings, or seasoned as before and heated in the frying-pan with butter or the drippings. A little minced onion or chives, or green pepper, or a tablespoonful of fine herbs may be added.

A tablespoonful of butter and a teaspoonful of flour may be stirred over the fire until the mixture is smooth and frothy. Add to this a pint of well-seasoned potatoes and stir the mixture with a fork for three minutes, then add half a pint of milk and cook until thoroughly heated, being careful not to burn.

Caring for Lace Curtains

SOILED lace curtains need not go into the washtub if the dirt on them is only the accumulation of everyday dust, and they can be cleaned and freshened by putting them through a gasoline bath. When the curtains are removed from the poles, they should be taken outdoors and shaken until no more dust will shake off, then they are put in a bucket or small tub and enough gasoline poured over them to saturate them thoroughly; the only safe place to use gasoline for cleaning is outdoors. Let the curtains remain in the gasoline for two hours, then squeeze and press the fluid out and hang them over the line, and they will need no ironing if they are stretched and pulled into

STUFFED PLUMS—Open sweet plums just far enough to remove pits; fill cavities with roasted marshmallows rolled in chopped blanched almonds; flavor double cream with pineapple extract, sweeten; whip, heap onto plate, and surround with plums; serve in dainty little mounds when thoroughly chilled.

perfect shape. Whenever it is possible it is far better to have nice lace curtains treated to the domestic cleansing process than to send them to the cleaners, for they are too often torn and their beauty spoiled when they are sent out to be laundered. Some curtains that are in constant use are kept fresh and dainty looking without hard rubbing by putting them to soak over night in a tub of tepid water. In the morning they are folded smoothly and passed through the wringer, then they are placed in a boiler two thirds full of cold water into which has been shaved a bar of white ivory soap, and if the water is not very soft, a little ammonia is added; then they are allowed to boil in the suds for twenty minutes. When they are removed from the boiler, they are carefully rinsed and dried in frames, and by this way of cleaning very little rubbing is necessary, which is a genuine saving to the curtains.

◈

Fig Pudding

CUT half a pound of cooking figs into small bits, and make a batter of two well-beaten eggs, one cupful of sweet milk, a tablespoonful of melted butter, one and a half cupfuls of flour with a teaspoonful of baking-powder and half a cupful of white sugar. Stir in the figs and put into a buttered mold and steam for two hours. Serve with whipped cream sweetened with strained honey, or maple syrup can be used.

MRS. H. L. MILLER.

◈

Stuffed Eggplant

HALVE the eggplant, scrape out all the inside, put in a saucepan with two tablespoonfuls of minced ham, and water to cover. Boil until soft. Drain off the water. Add two tablespoonfuls of bread-crumbs, a tablespoonful of butter, half an onion, minced, half a teaspoonful of salt and a dash of pepper. Stuff each half of the hull with the mixture, adding a teaspoonful of butter to each, and bake fifteen minutes.

◈

Cup Custards

SIX eggs, half a cupful of sugar and one quart of new milk. Beat the eggs with the sugar and add a teaspoonful of vanilla. Mix carefully with the milk, fill the custard cups and set in a pan of hot water in a slow oven. The experienced dessert-maker has learned that anything which has eggs and milk in it must be

CUCUMBER LOAF—Into two cupfuls of boiling water put six peppercorns, one blade of mace, one half of a bay-leaf, one half teaspoonful of celery-salt, one slice of onion; steep twenty minutes, drain; to liquid add three fourths of a boxful of gelatine softened in a little cold water, strain, add four tablespoonfuls tarragon vinegar; pour one half inch layer in mold, add layer of cucumbers; set on ice until firm; repeat until all are used; when firm unmold; serve with mayonnaise.

cooked at a low temperature, and slowly. When you break the custard gently with a spoon and a little water rises the custard is done. Set away carefully to cool. A little nutmeg grated over these custards just as they come from the oven gives them a fine flavor. Serve in the cups in which they were baked.

◈

Muffins

ONE large cupful of sponge, one tablespoonful of sugar, two eggs, one pint of sweet milk and a little salt. Beat well, adding flour to make the batter quite thick. Let rise and bake in well-buttered rings.

How to Make Buttonholes

THE good-looking buttonhole, neat and well made, is not met with as often as it should be. Many women who can sew will make a buttonhole not fit to be seen. This is strange when one considers the importance of the buttonhole, not only in everyday sewing, where it is impossible to dispense with it, but as the foundation for many embroidery-stitches. To begin with, take a piece of white cotton material about ten inches long and four inches in width, in which the threads may easily be counted. Fold through the center, and baste the cut edges together. Use a No. 6 needle and No. 36 cotton, or red marking-cotton No. 8.

A knot is never used in making buttonholes. Put the needle through the fold at the end nearest you, and draw the thread nearly out. Hold the folded cloth over the left forefinger. Put the needle through the fold six threads from the edge. When the needle is half-way through the cloth, take the cotton near the eye of the needle, between the thumb and forefinger, and pass it around the point of the needle from the lower to the upper side. Pull the needle out, and draw the thread down closely and firmly, but not too tight. The loop formed by turning the thread around the needle is called the purl.

Take the next stitch four threads above the one just made and six threads from the edge. Repeat until this sized stitch can be made evenly and with some degree of speed, then do the same with a medium stitch, and again with a short, close stitch. After some practise, counting threads will be unnecessary; but do not attempt a real buttonhole until the stitch on the folded edge is mastered.

The size of the stitch is regulated by the quantity of the material and also the way the buttonhole is prepared for the final work. The thread used is considerably coarser than that used in sewing the garment, because the purl is more showy and the work more rapidly done.

Now mark with a pencil a buttonhole crosswise of the practise-piece near the end. Beginning at the end of the mark furthest from the folded edge, make a row of back-stitches around the mark one sixteenth of an inch from it. Then cut on the mark, and overcast all around, making the overcasting-stitches where the back-stitches meet. Hold the buttonhole across the left forefinger, and beginning at the end furthest from the edge, put the needle in just beyond the back-stitches, and complete the stitches in the same way that they were made on the edge of the practise-piece.

Much care must be used in working around the end. Take the stitches further apart, but draw the purls closer together, making them form a half-circle. Complete the work by taking two or three tight stitches across the end and making buttonhole-stitches over it. This is called a bar, and may be omitted if preferred. Put the needle through to the under side, and fasten the thread by taking two tiny back-stitches.

If the thread breaks close to the purl, pull out three or four stitches, and hold the end on the under side; put the needle with the new thread up through the last purl, and proceed as before.

Except that a long stitch on each side of the buttonhole and a short stitch at each end sometimes takes the place of the back-stitches, all buttonholes on wash garments are made this way. On woolen goods the preparation is somewhat different. A button stay of some sort is needed when the garment closes tightly or when it must be laundered frequently. Sometimes a tape is stitched underneath, and in lined garments it should be placed between the outside and the lining. When the material is so thin that the tape would show through, make a circle of back-stitches one fourth of an inch in diameter where the button is to be placed. Take a small back-stitch, leaving the knot on the upper side; put the needle through the button, place a pin across it, and take the stitches over it in the form of a letter X. Be careful to take the stitches over the circle and on the bias of the cloth, because it does not so easily pull out of the cloth as when the stitches lie in the same direction as the threads of the material. Take two stitches each way, pull the pin out, and draw the button up the length of the threads; bring the needle through from the under side, and wind the thread tightly around the stitches under the button. Put the needle through to the under side again, and fasten by taking two tiny buttonhole-stitches a little to one side.

—HELEN◇MORTIMER—

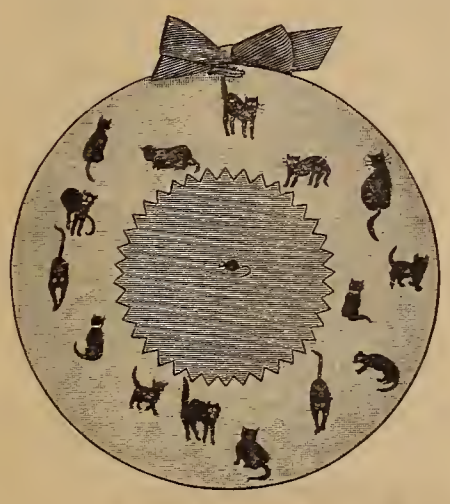
Match-Scratcher

FOR the match-scratcher a circular water-color cardboard plaque is used. A scalloped circular piece of fine sand-paper with a tiny black mouse painted in the center is pasted to the cardboard. Black cats of the same size—in a variety of attitudes—form an irregular border for the center circle. A red satin ribbon bow serves as a hanger. M. E. SMITH.

—HELEN◇MORTIMER—

A Fruit Cocktail

A FRUIT cocktail is now often substituted for the oyster or clam variety which has so long held the popular taste. Arrange alternate layers of orange or grapefruit pulp, strawberries cut in halves lengthwise, and bananas cut in thin slices



MATCH-SCRATCHER

and slices cut in quarters. Sprinkle each layer with powdered sugar and a few drops of lemon-juice. Chill thoroughly, arrange in cocktail glasses, and garnish with selected strawberries and Malaga grapes, skinned, seeded and cut in halves lengthwise.

—HELEN◇MORTIMER—

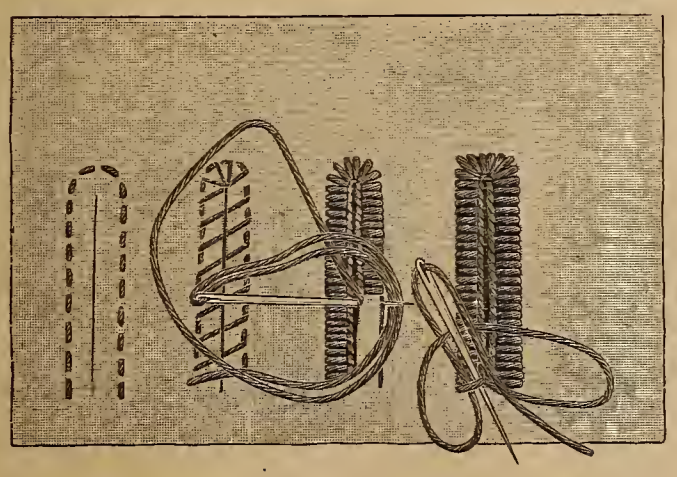
A Real Irish Stew

HERE is an Irishman's recipe for a stew: Wash and peel two pounds of potatoes; next slice an onion and cut one pound of scrag of mutton into neat pieces; season these well with pepper and salt. Then pack a stewpan, first with a layer of sliced potato, then one of the meat, and next of onions, repeating these until you have finished up the material, finishing with the potato. Now pour in one half pint of water, bring to the boil, then allow it to stew slowly for two hours.

—HELEN◇MORTIMER—

Quick Fruit-Dumplings

THESE are made with canned fruit or stewed fruit with lots of juice. Put in a saucepan, and while heating mix up the dumplings. One cupful of flour, two teaspoonfuls of baking-powder, a little salt, and enough sweet milk to make a very stiff batter. Drop this in spoonfuls upon the fruit when boiling hot, cover closely and cook fifteen minutes. Serve a dumpling with fruit and juice around it. The fruit should be sweetened before serving. MRS. H. L. MILLER.



No. 1—BUTTONHOLE MARKED AND STITCHED

No. 2—BUTTONHOLE MARKED, STITCHED AND OVERCAST

No. 3—BUTTONHOLE PARTIALLY WORKED; NEEDLE IN POSITION

No. 4—BUTTONHOLE WITH SQUARE END BARRED; NEEDLE IN POSITION FOR MAKING THE BAR

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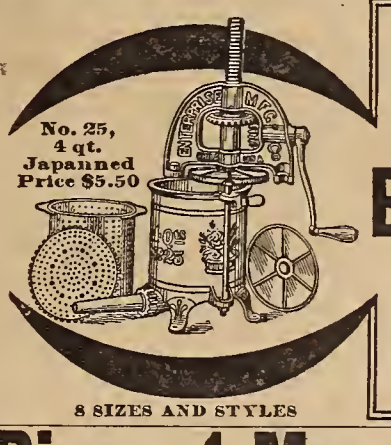

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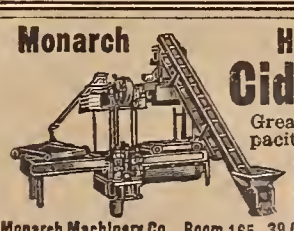

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The Young People

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FEEDING HER FLOCK

The Little Red Imp

"Now boys," said the nice old magician, combing his long white beard with his fingers, "I shall have to be away all day at least, for I am going to the other side of the world. Will you be very, very good?"

"Oh, yes, sir," answered the two office-boys; and they meant what they said, for they were not at all bad little boys.

So the old magician called his flying hippogriff, had him saddled and bridled, climbed a little stiffly to his back, and—away he went.

"Jim," said Hal, "have you ever been up in the magician's own room?"

"Yes," said Jim. "Haven't you?"

"No," Hal answered. "What is it like?"

"It's the queerest shop you ever saw—I mean, you *never* saw. S'pose we go up there now?"

"But we promised to be good," Hal objected.

"Well, we ought to go up and see that everything is in order," Jim insisted, and he looked as solemn as if he really believed what he said.

The key was found and fitted to the door in silence. Jim put it in, Hal turned it, but both boys walked into the room. No sooner were they inside than the big door shut with a bang. In the middle of the room was a round table covered with a scarlet cloth having a deep and heavy gilt fringe. At one end of this table was the magician's high-backed chair. In the middle of the table was a round glass bottle, and inside the bottle was a little red imp.

"Come right in, Hal; come right in, Jimmy!" the imp piped out, in a shrill voice. "I am *so* glad to see you! It has been so lonely here! Perhaps you have been lonely downstairs, eh? I thought so. How pleased your master would be to know you had come up!"

The boys looked rather ashamed, but the imp seemed not to notice it.

"Who are you?" asked Jim. "I never saw you here before."

"No? Why, that isn't strange, either, for this is the first time we have been here together. Pretty place, too."

"What is your business here?" Hal asked.

"Business? I didn't come on business," the imp replied, chuckling, "and I hope I sha'n't have to stay here very much longer! I'm sure I shouldn't if your master was at home; but probably you boys don't know enough to be of any use to me. You're very bright boys, no doubt, but you haven't been taught much about the work here."

"No, we haven't," Hal admitted.

"Let—me—see," said the little red imp, turning up his eyes as if thinking very hard. "Suppose I change one of you into a hippopotamus? How would that suit you?"

"Not at all," said Jim, backing toward the door.

"Or a monkey?" said the imp, turning to Hal.

"No, sir, thank you!" Hal exclaimed, very politely. "I don't care to be any animal to-day."

"How strange! Suppose I do another trick, then. Take up this glass bottle in which I am, throw it down—hard!—on the hearth, and then you will see me do something remarkable."

"I don't want to," Hal said after a pause.

"I will," Jim said; and he took up the glass bottle and threw it down upon the hearth, where it broke into small bits.

At once the little imp began to swell in size. He grew bigger and larger and more huge, until he was the size of a small giant. And how he did grin at the two scared boys!

"I have kept my word," said he. "Isn't this remarkable?"

"Yes, sir," Jim answered, with chattering jaws.

"Very remarkable?" asked the imp, frowning.

"Oh, yes, sir," Hal agreed.

"Extremely remarkably queer?" the imp insisted, this time with a great scowl.

"Oh, yes, sir; indeed sir," said both the boys. "But what did you do it for?"

"Because," said the liberated imp, with a very courtly bow, "I wished to be free. Your very kind and noble master has kept me in that bottle for thirty years, and I have found it much too small an apartment for my taste. Now that you have kindly set me free I mean to enjoy myself by paying off my score against the old magician."

Thereupon he tore down the curtains, pulled down all the pictures and books, and piled all the wreck into a great heap on the floor.

"Have you a match?" he asked Jim.

"No, sir," said Jim, shaking with fear. "Please don't do any more mischief! I'm afraid we'll be blamed for it."

Then the imp struck a spark into a bit of tinder, and blew it hard. When it was glowing brightly the imp set fire to the heap of things in the center of the magician's study. Soon the whole room was ablaze.

"I think," said Hal, "we'd better get out."

"I think so, too," Jim answered.

"Don't hurry boys," the imp cried out. "It's getting nice and warm here now."

But the boys preferred to go outdoors even if it was a little chilly, and they opened the door and ran down-stairs and out.

Once in the open air, they stood and watched the fire. They could see the red imp dancing about in the house, tearing and breaking and burning everything and doing his best to make the fire as bad as he could. In about half an hour nothing was left but a heap of ashes, upon which sat the great red imp, looking very much dissatisfied because there was no more harm he could do.

Suddenly the imp arose from the big pile of ashes upon which he had been sitting, brushed the dust from his tail, and shading his eyes with one hand, looked far away over the plain.

"Now, boys," he said, after a short pause, "you are going to have a very pleasant time. I wish I could remain to see it, but after staying thirty years in one place one becomes restless. Besides, it *may* be that the magician will not like what has happened in his absence. Here he comes—and here I go!"

At once the imp began to grow small again—smaller and smaller until he was no bigger than one of the little crabs found in oyster shells. Then he slipped into a crack in the earth, and for a while the boys saw him no more.

They began to look around for the magician, and presently they saw him coming slowly across the plain. The boys were greatly frightened, but could only wait to see what he would say.

He advanced in a leisurely way, not seeming to notice that his house had been burned, and presently stopped near the boys.

"Why did you leave the house, boys?" he asked.

"We didn't mean to, sir," said Jim.

"Then what are you doing out here?"

"Why, sir," said Hall, "we're very sorry indeed, sir, but the house is burned up."

"Burned up?" repeated the magician, mildly.

"Well, sir," Jim replied in his turn; "a little red imp burned it down."

"You mean the bottle-imp?"

"Yes, sir."

"But how did he get out of the bottle?" asked the magician.

The boys put their fingers in their mouths, looked at the ground and stubbed their toes in the sand.

The magician noticed their confusion. "I see," he remarked, "that you have had something to do with what has happened. Fortunately there has been little harm done. I feel that I must punish you, but first let me put things somewhat to rights."

The magician wiped his wand carefully with a silk handkerchief, and then waved it gently over the pile of ashes. At once the great heap rose into the air in a vast cloud, whirled rapidly about and then drew together. There was a crackling sound, then a great snap, and the magician's house put itself together like the pieces of a puzzle. And it looked just as good as new.

The magician turned to the boys, and said, "I don't wish you to think that you did no mischief simply because I am able to put things in order again so easily. Magic is very expensive, and I shall have to take this out of your wages. My house was worth fully twenty thousand gold pieces, and this new one (for, though looking just like the old, it is entirely new) costs as much. So you see, Hal and Jim—or, since you have been naughty, I'll call you Henry and James— you each owe me about ten thousand gold pieces. As you get one piece apiece each month, you will have to work for ten thousand months to make it up, or eighty-five hundred years."

Both boys burst into tears.

"It *does* seem long," said the magician, sympathetically, "but wait! I see I have made a mistake. It should be eight hundred and fifty years."

Henry and James brightened up, for the corrected time seemed much shorter.

"Now," said the magician, "let us go indoors."

As they entered, Hal nudged Jim, and said, "He doesn't seem so very cross. Let's see whether he won't forgive us. I'll ask him."

"All right," Jim answered.

So Hal plucked up courage, and said, "Please, sir, we're very sorry. We didn't mean to do any harm, and that little red imp somehow made us think it was all right."

"Very well," said the magician, kindly, "I'll forgive you, and we'll say no more about it, except that you must remember this occurrence and hereafter leave all magic things alone."

The boys gladly promised. Then the magician entered his study, beckoning them to follow. There upon the table was the bottle, and inside of it was a green frog.

"You see, boys," said the magician, "I have punished the imp by changing him into a frog. He isn't sorry for what he did."

A queer croaking voice came out of the top of the bottle. "Sorry? Course I'm not sorry! I'm glad I did it, and I'll do it again as soon as I get a chance!"

The Puzzler

The Names of Six People of Literary Fame Are Represented Below

Answer to Puzzle in the October 1st Issue: The Virginian, Richard Carvel, Eben Holden, The Sign of the Four, The Gambler, The Masquerader

Sunday Reading

Looking on the Bright Side

CHRISTIANITY looks evermore on the bright side of things. It is for this reason that the religion of Christ is cheerful religion. It is preëminently hopeful. This is why hope is held out to the most degraded, to the vilest and most wretched. It says to such: "Be of good cheer; though your sins be as scarlet, they shall be as white as snow."

See how some cheery souls look at their troubles. On one occasion when some friends were condoling with an old man regarding the many troubles of his long and checkered pilgrimage, he remarked: "What you say is too true. I have been surrounded with troubles all my life long; but there is a curious thing about them—nine tenths of them never happened!"

Another genial spirit said: "Some people are always finding fault with nature for putting thorns on roses. I always thank her for having put roses on thorns."

The same writer further says: "I remember asking a poor man, who had certainly very few outward comforts, and who had much bodily infirmity and pain, 'Do you weary much?' 'No, sir, I never weary,' was the prompt reply. 'Happy as ever?' I said. 'Aye, sir, and aye, the longer the happier,' was again the sweet response."

These are all instances of true faith.—Our Young Folks.

◈

Help Yourself

"PRAYER," said Philips Brooks, "is not conquering God's reluctance, but taking hold of God's willingness." I am struggling in the water, in great danger of drowning, and a friend on the shore throws out a rope for my rescue; the stream floats the rope within my reach. The means of rescue are at hand. But suppose I refuse? That does not argue any unwillingness on the part of my friend on the shore to save me. And it does not argue any change of purpose on his part if I reach up my hand and lay hold upon the rope. If I am not saved the fault lies wholly with myself. God's rope of rescue is on the water for everyone. Prayer is the hand that reaches out and lays hold on God's willingness, and lets the friend on shore do the rest.—United Presbyterian.

◈

Dependence on God

ON ONE occasion in our own Civil War, the general in command of certain forces broke out with the exclamation, on the eve of battle: "We have got them now and they know it. God Almighty cannot save them." So he had "got them" by all human reckoning of the chances. His staff responded: "Yes, we are sure of them." But it happened—how much it had to do with the fortunes of the day, we will not presume to say, but it happened—that the commander-in-chief on the other side was a praying man. He had that morning spent an hour in his tent invoking divine interposition in the coming conflict. The close of the day found him again in his tent offering thanksgiving for a victory, while the presumptuous general who thought that "God Almighty could not defeat him" was in ignominious flight down the valley of the Shenandoah. Why should it not be so? Such men command invisible allies. They invoke the onset of spiritual battalions. They lead their enemies into ambuscades of angelic legions. If our eyes were not holden, we might see that the very air is full of them.—Austin Phelps in the Baptist Commonwealth.

◈

Robbie's Press

ONE day papa took Robbie down to see the presses print the books and papers and pictures, and the little boy was very much interested.

"Papa," said he, "let me come down every day and run the presses."

"Oh, I couldn't let you do that," said his papa, "but maybe I'll have a little printing-press made for you, just your size."

The weeks and months passed away and papa forgot all about his promise, but Robbie didn't. It was fully a year later that he came home from Sunday-school and said, "Papa, teacher said that God made the world in six days. Is that so?"

"I guess it is," said papa.

"The water and the dirt and the trees and the dogs and birds' nests and everything?"

"Yes."

"Gee, whiz!" said Robbie, "that was quick work. Six days to make all the world, and you've been a year and ain't got that printin'-press done yet!"—American Boy.

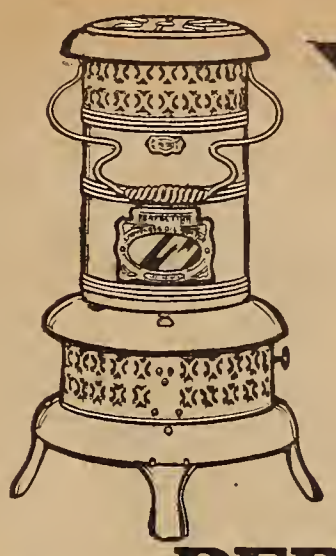
◈

God's Reason for Being Obeyed

GOD'S laws are always guide-boards to blessings. The foundation law is love; and upon that foundation are based all the rest, as instructions to us what to do and what to avoid in order to let God "crowd and crown" our lives with love. He never asks us to give up anything except for the purpose of replacing it with something better, something that we could not have unless we gave up that which blocks the way. He never asks us to do anything except as a means of laying hold of a blessing that far outweighs the effort demanded. God's laws are gifts, or stepping-stones to gifts. In their divine wisdom they never prohibit anything but trouble and disaster.—Sunday-school Times.

THE FRIEND THAT NEVER FAILS

Photo by Randall



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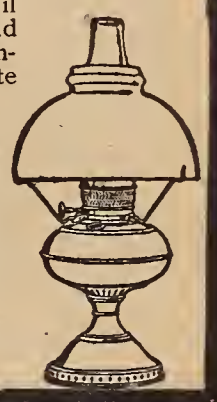

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Practical Autumn Fashions

No. 804—Plain Wrapper with Fitted Back

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 36 inch bust, eight and one half yards of thirty-six-inch material, or seven and one half yards of forty-four-inch material, with three eighths of a yard of all-over lace for collar and cuffs.

No. 803—Misses' Box-Plaited Waist

Pattern cut for 14, 16 and 18 year sizes. Quantity of material required for medium size, or 16 years, four yards of twenty-two-inch material, or three and one half yards of thirty-inch material, with one yard of all-over lace for yoke, collar and cuffs

No. 806—Misses' Semi-Fitted Coat

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, four yards of twenty-seven-inch material, or two and three fourths yards of thirty-six-inch material, with one fourth of a yard of velvet for collar

No. 805—Princess Dress with Panel Front

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, fifteen yards of twenty-two-inch material, or thirteen yards of thirty-inch material, with one and one fourth yards of all-over lace, and two yards of lining thirty-six inches wide

THE amateur dressmaker always looks upon the making of a skirt as a pretty difficult problem. She will attempt to make a waist with no hesitancy whatever, but a dress-skirt—well, that she regards in a very different manner.

There is no reason, however, why any woman cannot make for herself the smart-looking skirt illustrated on this page, if she will only study carefully the following lesson.

Order pattern No. 802—Seven-Gored Skirt with Fan Plaits. This, by the way, is one of the very newest and most practical designs for an autumn walking-skirt, and has the advantage of being becoming both to stout and slender figures. The upper portion of the skirt fits closely, but the fan plaits provide a desirable flare at the hem.

So carefully are the FARM AND FIRESIDE patterns made that it would be practically impossible to make a mistake in putting the skirt together, because not only are the different gores notched in such a manner that they are readily distinguished, but each gore is designated by a letter and referred to in the description on the pattern envelope by that letter.

The envelope of pattern No. 802 contains five pieces—The Front Gore, which is lettered E; First Side Gore—M; Second Side Gore—N; Back Gore—H, and Belt A.

These letters are perforated through the tissue-paper pattern, so there is no way in which the side gores and back gores could be confused.

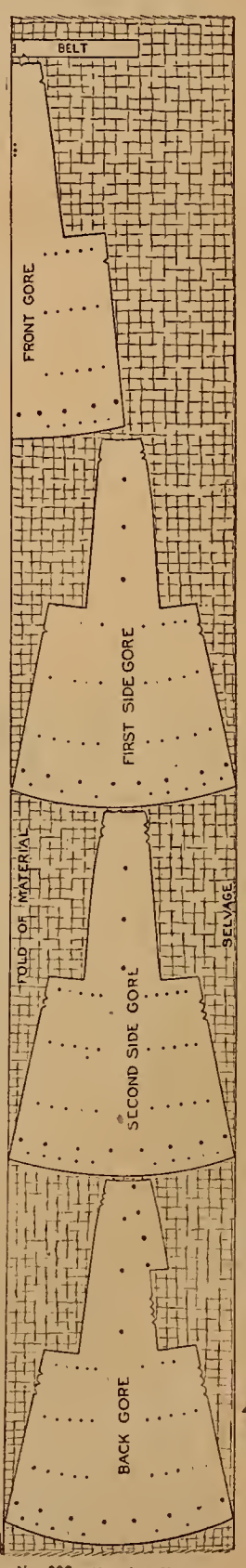
One illustration on this page shows how the different pieces of the pattern should be placed upon the material. Triple crosses (xxx) on the edge of the front gore and belt indicate that these pieces are to be placed on a lengthwise fold of the material. The side gores and back gores each have a line of large round perforations which marks the straight of the goods, and these pieces are placed on the material with this line running lengthwise.

The illustration shows the pattern placed on material fifty-four inches wide. If your material is not so wide, the lower part of the gores will have to be pieced. If, however, the fabric is thirty inches wide, or even narrower, it will be necessary to pin two widths together before cutting out the side and back gores. The front gore and belt, however, must be cut off on the fold of the material.

To the woman with a limited income this is stock-taking time in the fashion world. What can be worn again, what can be utilized, and what must be made, are the perplexing and all-important questions. The new imported costumes offer many a suggestion for her to make use of in renovating her old gowns. The fact that the guimpe and guimpe effects are shown in so many of the French models make it possible for her to put to good use her somewhat worn lingerie and silk waists. The best portion of them will serve admirably for yokes, chemisettes and under-sleeves.

The vogue for the Princess gown still continues and the design shown on this page promises to be the height of style for some time to come. The waist portion of the frock is made with a fitted lining. The chemisette and deep cuffs of lace are mounted on this lining. The costume may be worn with long or short sleeves. The panel-front effect gives particularly good lines to the figure.

A gown of this sort would be charming made of the very fashionable silk poplin suitings, which are shown this autumn in such a variety of patterns and colors. These new poplins are so soft that they fall in graceful folds, and yet they are warranted to stand the greatest amount of hard wear. They come in stripes, that is, a plain silk poplin with a stripe of the same color, but not in the same tint as the groundwork. And then they also come striped and showing a silk figure having an embroidered effect done in self-color.



No. 802—Showing How the Pieces of the Pattern Are Laid on the Material

PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the size and number of the pattern desired.

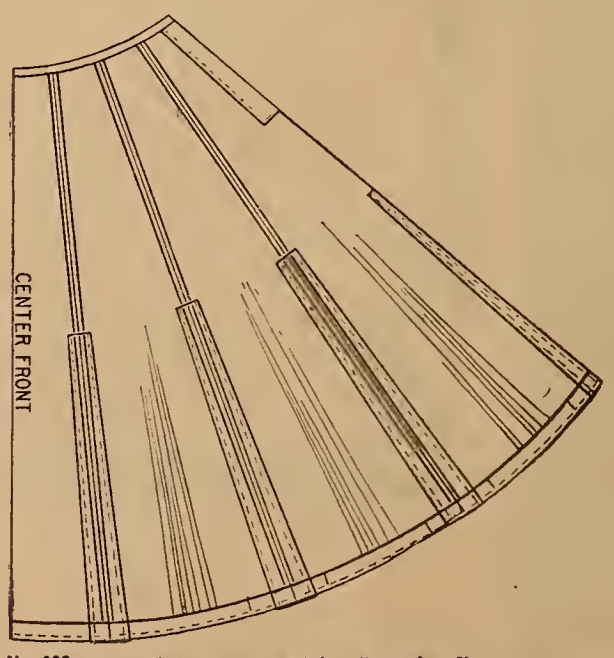
Our fall and winter catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

If you have never made your own clothing and are tired of paying the exorbitant prices charged by the expensive dressmaking establishments, the designs illustrated on this page will be of interest to you. No one, no matter how inexperienced, need have any fear about the fit and success of a dress when made with the aid of the Madison Square Patterns. We employ the highest-priced experts, each an artist in his separate line. Enclose 10 cents for each pattern wanted.

THE CROWELL PUBLISHING CO.,
Madison Square, New York City.

No. 807—Boys' Nightshirt

Pattern cut for 8, 10, 12, 14 and 16 year sizes. Quantity of material required for medium size, or 10 years, three and one half yards of twenty-two inch material, or three yards of thirty-six-inch material



No. 802—The Inside of Half the Skirt, Illustrating How the Fan Plaits Are Basted, the Hem Turned Up, and the Placket Finished

No. 802—Seven-Gored Skirt with Fan Plaits

Pattern cut for 24, 26, 28 and 30 inch waist measures. Quantity of material required for medium size, or 26 inch waist, eight and three fourths yards of twenty-two-inch material, or six and one fourth yards of thirty-six-inch material

Wit and Humor

Near to Nature's Heart

HERE is the way the Newark "Evening News" has it:

"A $75,000 automobile rolled through the $60,000 bronze gates and up the $35,000 winding avenue to the $20,000 marble steps. Descending from the machine, the billionaire paused a moment to view the smiling $500,000 landscape. Across the $90,000 lawn a $125,000 silver lake lay sleeping in the shades of early evening, and beyond it rose a lordly $80,000 hill whose crest, cloaked with forest at an expense of $200,000, glowed in the last golden rays of the setting sun. The billionaire sank luxuriously into a $2,000 ivory porch chair and rested his feet on the rosewood railing of the $160,000 veranda. 'It is pleasant,' he observed, 'to get back to nature once in a while. After the cares and worries of the business day I certainly love to run out to this quiet little $60,000,000 country club of ours and taste a bit of simple life. It is good to keep in touch with the soil; for what is man but dust, after all!' Feeling restored, he passed in through the $400,000 doorway to his $1,500 dinner."

—HELEN◈MORTIMER—

Souvenirs

A visitor calling on an Irishman who had the credit of being a lively heckler at political meetings said: "What's that, Mike, that you have in the glass case?"

"Oh, that's the brick I got ag'in' my head at the last election."

"Oh! And what's that little flower on top of it for?"

"That's the flower from the grave of the man that threw it."—London News.

—HELEN◈MORTIMER—

Fair Warning

A farmer who was much troubled during the nutting season by trespassers in a wood bordering the roadside, ascertained from a botanical friend the scientific name of the hazel, and caused the following notice to be put up in the wood:

Trespassers Take Warning!
All persons entering this wood do so at their own risk,
for the
Corylus Avellana
Abounds here in company with more or less poisonous snakes.

The wood is now shunned by everybody, and the farmer is so pleased with the success of his ruse that he thinks of seeing his botanical friend again to find out the Latin name of the common, edible field mushroom.

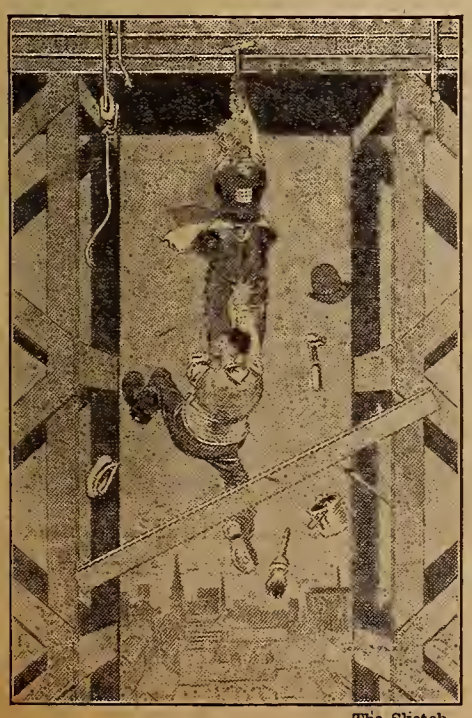
—HELEN◈MORTIMER—

Sage as a Humorist

"Russell Sage," said a New York barber, "was gifted with a dry humor for which he didn't get any credit. One day he came in to be shaved. To shave so great a financier is an honor, and, to mark the occasion, I got out a new and fine cake of shaving-soap. As I prepared my distinguished patron's beard I couldn't help calling his attention to the new shaving-soap, which smelled and lathered beautifully.

"'This new soap is very fine, sir,' I said, 'cream, cocoa oil and a dash of alcohol.'

"'Alcohol, eh?' said Mr. Sage. 'Well, remember I'm a temperance man and don't put any more of it in my mouth than you can help.'"



The Sketch

"Le' go me legs, Bill, er I'll 'it yer wiv me 'ammer"

36

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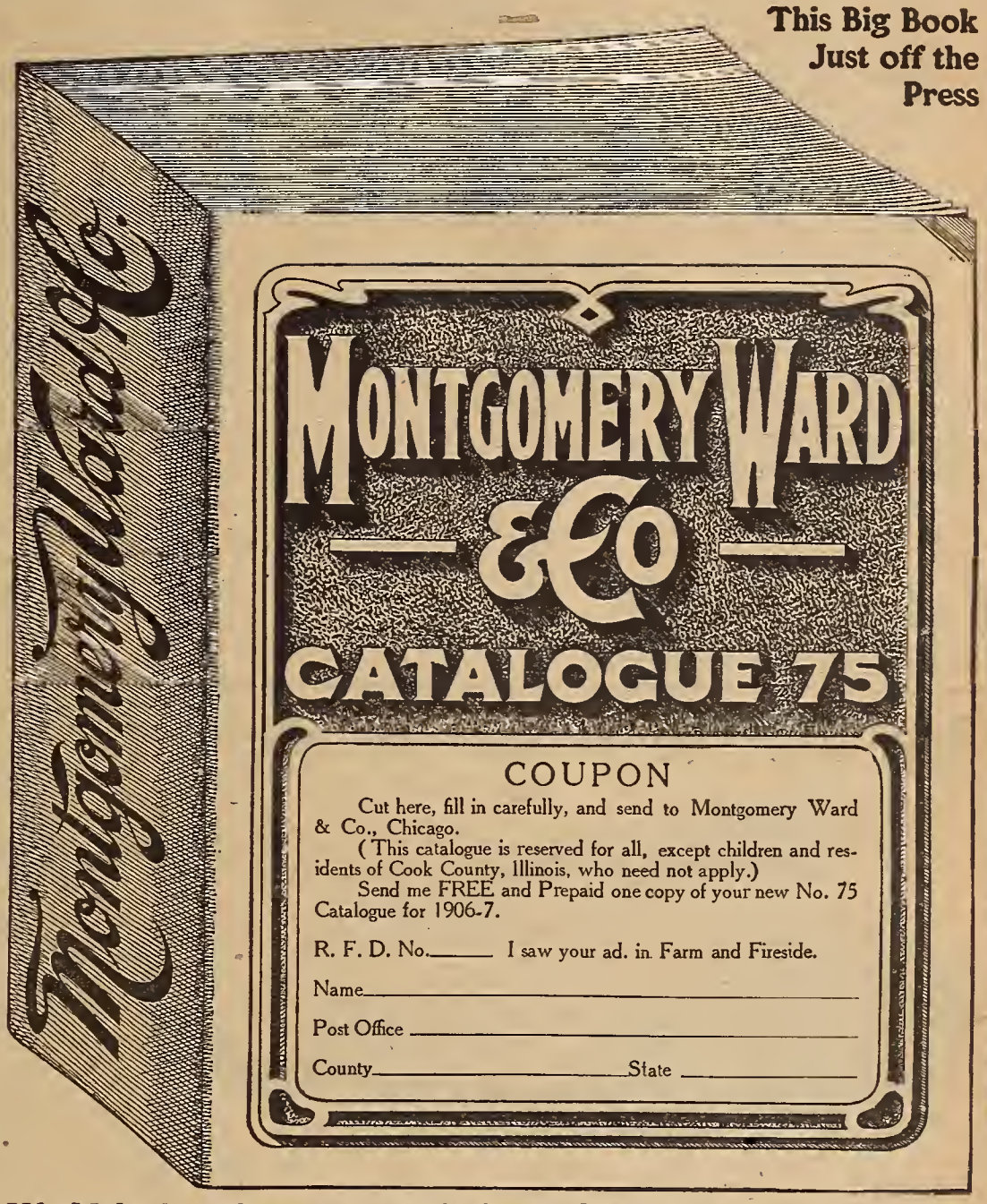

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On one side there are three needle-pockets, containing sizes 3, 5, 6, 7 and 9 of the finest imported needles. On the other side is an assortment of fifteen fancy needles, including a square-end bodkin 2¾ inches long, two large darning needles, each about two inches long, and twelve fancy large and small eyed needles. All of these needles are **Sharp's Best Ellipse Silver-Eyed.** The eye is so shaped as to be threaded with the greatest ease; has no sharp edge to cut the thread. Another valuable feature is a groove shape given to the end of each needle at the eye, so that the thread will follow the needle through any cloth, heavy or light, without the slightest strain. Sent prepaid.

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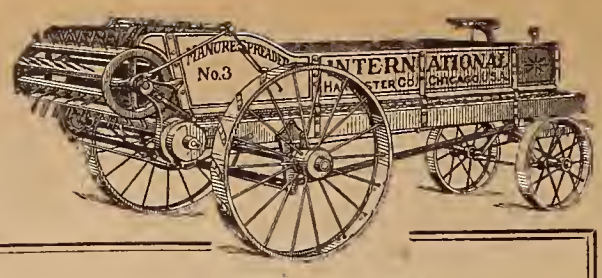

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It is extremely simple in construction. Any child can operate it and become an expert marksman with little practice.
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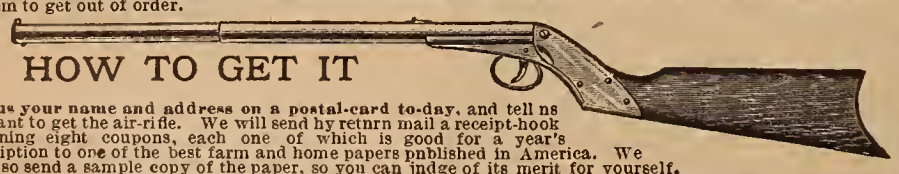
This rifle uses no powder—jnst air. There is no smoke, no noise.
Air is plentiful, and shot costs hut 10 cents for 1,000, while darts can be shot over and over again.
Harmless, and lasting for years—no wonder every boy shonld want an air-rifle.
Expert workmanship and accurate machinery enahle the mannfacturers to produce an air-rifle of which all parts are interchangeahle.
These air-rifles are provided with pistol-grip, true sights, and so strongly made tbat it is almost impossible for them to get out of order.



HOW TO GET IT

Send us your name and address on a postal-card to-day, and tell ns you want to get the air-rifle. We will send hy retnrn mail a receipt-hook containing eight coupons, each one of which is good for a year's subscription to one of the best farm and home papers pnblished in America. We will also send a sample copy of the paper, so you can jndge of its merit for yourself. Yon sell these coupons to yonr friends and neighhors at 25 cents each. They will gladly take advantage of a chance to get a good paper one year for 25 cents. When the coupons are sold, yon send the $2.00 to us, and we will forward the rifle. If you don't want a rifle, perhaps yon know of some boy or girl who would like to earn a rifle. If so, send ns their name and address, and we will send a receipt-hook by retnrn mail. **Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day**

Address FARM AND FIRESIDE, Springfield, Ohio

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Of Curious Interest

An Old Doll

THIS picture represents a quaint old doll which has been in the possession of my family for four generations, and which is at least one hundred and twenty-five years old. It is about fourteen inches high and is made of a queer glazed ware, the lighter portions of which are yellow and the darker green. The clasped hands hold a bunch of flowers, and about the neck is a string of beads with a locket attached. In the top of the head is a hole, showing that the hollow body of the doll was doubtless intended to serve as a bottle; and as such it was used by my grandmother when a little girl, to carry milk for her lunch to the country school—a strange use, indeed, for a doll! MRS. T. F.

—HELEN◈MORTIMER—

Collection of Horseshoes

THE English Duke of Rutland has the walls of one of his castles adorned with thousands of horseshoes, the collection having been begun centuries ago. Among them is a shoe given by Queen Elizabeth and another by Queen Victoria.

—HELEN◈MORTIMER—

The Date of Inauguration Day

MARCH 4th was selected for Inauguration Day for the reason that the date seldom falls on Sunday. Only three times during our history has the date occurred on that day. The first was the second inaugural of James Monroe, the fifth president, March 4, 1821; the second was when Zachary Taylor was made President, March 4, 1849; the third was the inauguration of Rutherford B. Hayes, on March 4, 1877.

This will happen three times during each century, or one year after every seven leap years. Inauguration Day during the present century will fall on Sunday in the years 1917, 1945 and 1973.

—HELEN◈MORTIMER—

About Eyes

WIDE open eyes are indicative of rashness.

Small eyes are commonly supposed to indicate cunning.

Eyes with sharp corners indicate great discernment and penetration.

The downcast eye has in all ages been typical of modesty.

Upturned eyes are typical of devotion.

Side-glancing eyes are always to be distrusted.

Eyes in rapid and constant motion betoken anxiety, fear or care.

Unsteady eyes, rapidly jerking from side to side, are frequently indicative of an unsettled mind.

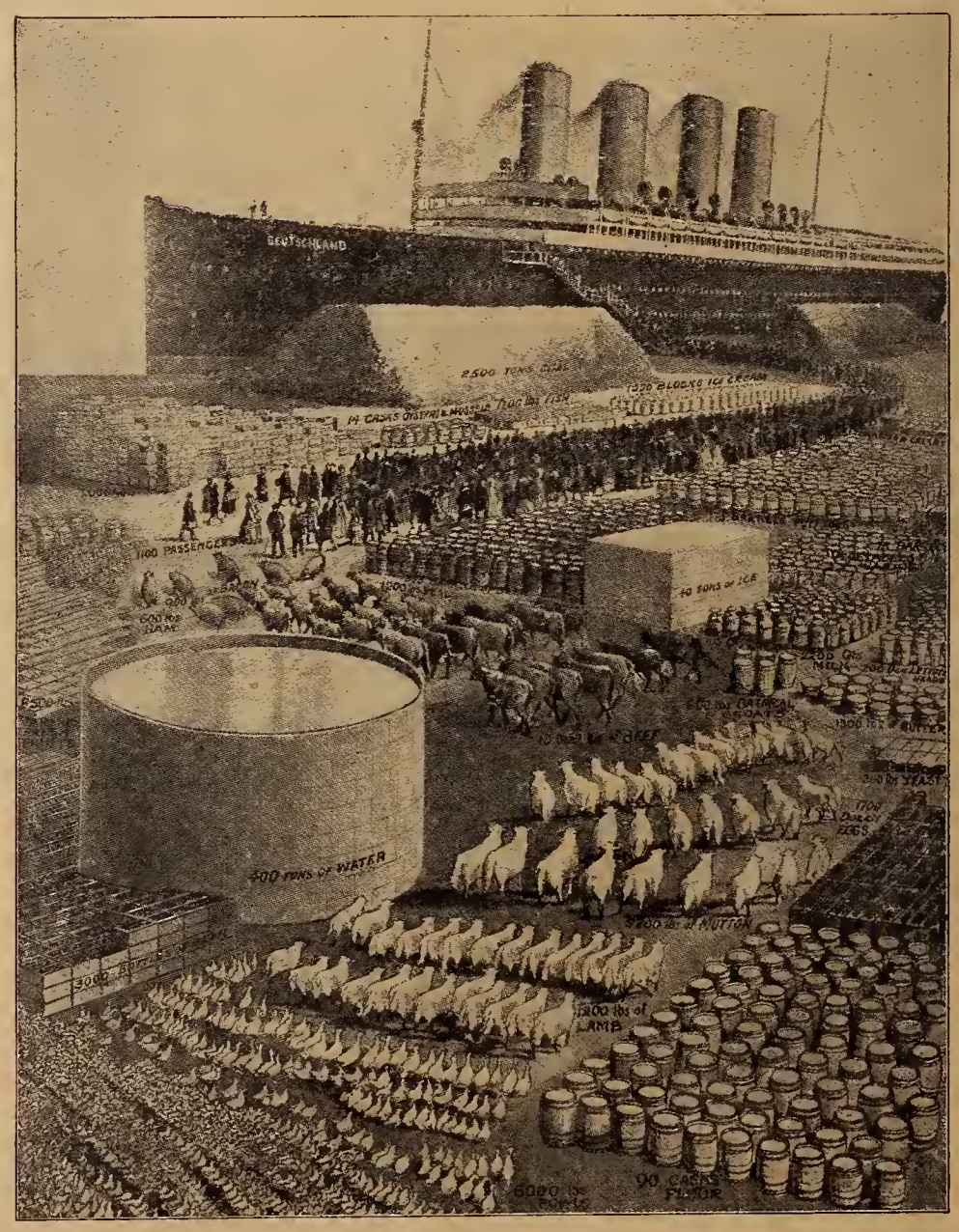
An eye the upper lid of which passes horizontally across the pupil indicates mental ability.

Eyes of any color with weak brows and long concave lashes are indicative of a weak constitution.

Eyes that are wide apart are said by physiognomists to indicate great intelligence and tenacious memory.—Newark Advertiser.

—HELEN◈MORTIMER—

You have not yet made the acquaintance of Helen Mortimer, but we'll introduce her to you in November. Is your subscription paid up?



—From Illnstrated London News.

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400 tons of water.	200 dozen lettuce.	350 pounds of yeast.	40 tons of ice.
13,000 pounds of beef.	90 casks of flour.	8,500 pounds of various fresh fruits.	1,300 pounds of butter.
2,200 pounds of mutton.	900 pounds of pork.	40 casks of oysters and mussels.	600 pounds of oatmeal and groats.
1,200 pounds of lamb.	1,200 pounds of veal.	1,700 pounds of fish.	1,700 dozen eggs.
600 pounds of ham.	375 barrels of beer.	300 quarts of cream.	6,000 fowls.
400 pounds of tongue.	3,000 bottles of beer.	1,000 blocks of ice-cream.	175 casks of potatoes.
75 casks of various vegetables.	2,200 quarts of milk.		5,000 tons of coal.

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No 809—Waist with Vest and Cape Sleeves
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.

No. 812—Waist with Tuxedo Lapels
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.

No. 808—Tucked Shirt-Waist
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.

No. 810—Fancy Waist with Empire Bolero
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.

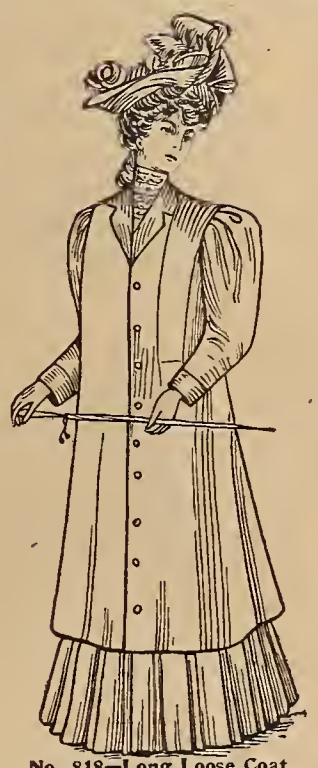
No. 813—Fancy Double-Breasted Waist
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.

No. 790—Tucked Tailor-Made Shirt-Waist
Sizes 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one fourth yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material. 10 cents.

No. 790—How the Sleeve is Arranged in Arms-Eye According to Notches.

No. 790—The Finished Sleeve.

Rear No. 818



No. 818—Long Loose Coat
Sizes 32, 36 and 40 inch bust measures. 10 cents.

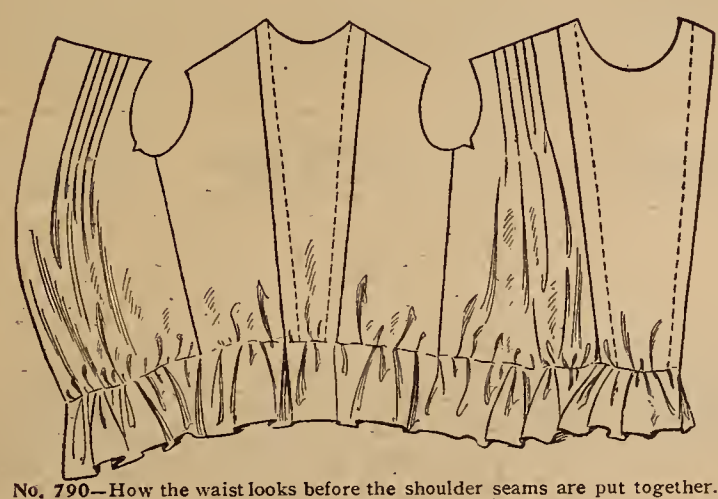
Rear No. 820-821

Rear No. 819

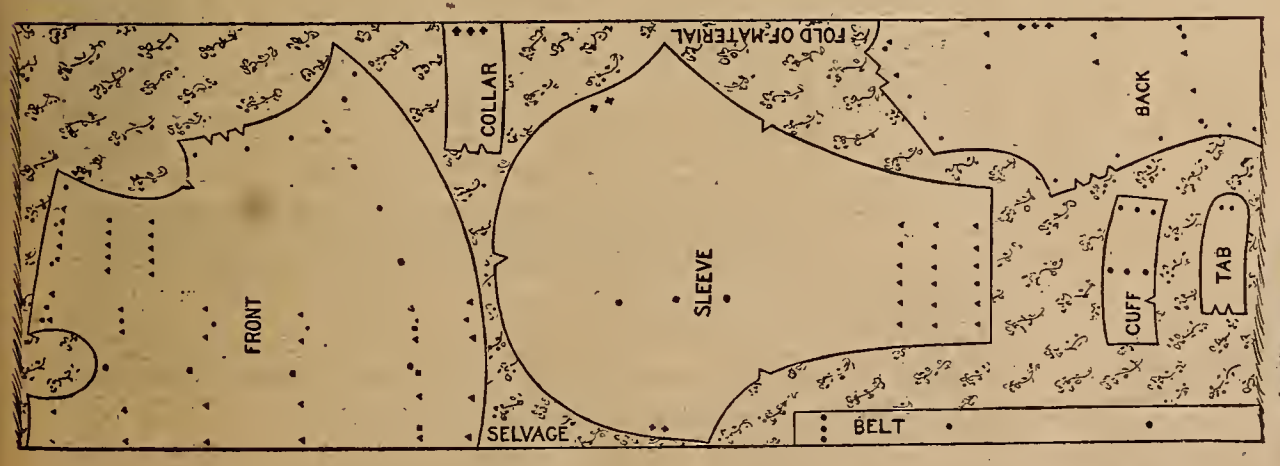
No. 820—Military Jacket
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.

No. 821—Walking Skirt—Nine Gores
Sizes 22, 24, 26 and 28 inch waist measures. 10 cents.

THE woman who would be her own dressmaker, but doesn't know how, need have no misgivings in attempting to make her clothes if she does so with the aid of the Madison Square patterns. . . . . .



No. 790—How the waist looks before the shoulder seams are put together.



No. 819—Guimpe Princess Gown
Sizes 32, 34, 36 and 38 inch bust measures. 10 cents.

No. 811—Box-Plaited Shirt-Waist with Pockets
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.

These illustrations show the different pieces of the pattern No. 790 placed as they should be on the material, ready to cut out. Every notch and perforation in the pattern is illustrated in these drawings to convey clearly the idea of the correct placing of each piece of the pattern before the material is cut. If the material is not wide enough to cut out the fronts and sleeves in the manner shown, two widths should be pinned together before cutting. The back and collar must be cut on the fold of the material, and if necessary the backs and fronts may be pieced under the arms. The right front is cut like the pattern, but the left front is cut off by the line of small round perforations.

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When ordering be sure to comply with the following directions: For ladies' waists, give BUST measure in inches. For skirt patterns, give WAIST measure in inches. For misses or children, give age in years. To get BUST and BREAST measure put tape measure ALL of the way around the body, over the dress, close under the arms. Order patterns by their numbers. Satisfaction guaranteed or money refunded.

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For other new and up-to-date designs see page 20

Some Facts for Farmers

The United States Department of Agriculture is sending forth some interesting facts for the farmer and others interested in the products of the soil. It has discovered that each farmer in Vermont produces an average of $327.37 while each farmer in Iowa produces nearly double this sum or $611.11 worth of farm crops. The Iowa farmer adds an average $477.00 to his income from the sale of his stock thereby bringing his total income up to $1,088.11. Down in South Carolina the average return to each farmer is but $147.46, and as several of the Southern states yield about the same sum to their farm workers the "down-South" farmer has some reason for feeling that farming "does not pay."

They are now considering the feasibility of converting some of our too numerous and unnecessary granite boulders and other rocks into fertilizer, as it is claimed that they contain a certain percentage of carbonate of potash. Dr. Allerton Cushman, of the Department of Agriculture, is experimenting with crushed granite, and he is confident that it has a real virtue as a fertilizer, as it contains more than five per cent of potash, and we now have rock-crushing machines that will grind it to a powder as fine as flour. A cheaper fertilizer than there is now on the market would be a great boon to the New England farmer.

Uncle Sam is strongly urging the farmers of America to coöperate with him in his efforts to make our farming lands more productive. The coöperative methods of the Department of Agriculture at Washington should be investigated by every intelligent farmer. They are the result of a vast outlay of money on the part of the government, and have already been of great benefit to hundreds of farmers.

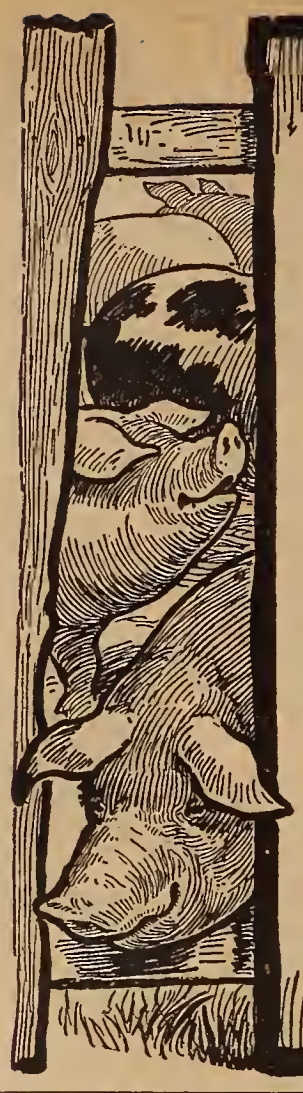
Dr. Seaman A. Knapp, of the United States Department of Agriculture, gives us this interesting bit of information: "Of the South Atlantic and the South Central states alone there are eleven that border on the Atlantic and Gulf of Mexico. Add Arkansas and we have twelve states which contain about one fourth of the population of the United States. The gross product of the farms in these twelve states amount to slightly more than $1,000,000,000 a year. If this could be increased twofold it would pay the national debt and all the expenses of the Federal Government in one year. Our whole civilization would respond to the influence as if touched by the prophet's rod. "Yes, 'if,'" some farmer will say, but Dr. Knapp goes on to show that this is not an impossibility and can be brought about by a more thorough tillage of the soil, better farm drainage, better seeds and the use of economical plants better suited to the soil.

"What will hold the boys on the farm and multiply the wealth of our farmers?" asks a writer on agricultural products, and he answers his own question by saying: "More power and less hand work." There is something in that. Machinery has done much in lessening the work of the farmer, but it must do more, for there is still a great deal of wearisome work being done by hand that machinery must and can be made to do.

Ten years ago alfalfa was almost an unknown quantity so far as its cultivation anywhere this side of the Rocky Mountains was concerned. To-day millions of acres of land in Kansas and other Western states are producing alfalfa worth from fifty to sixty dollars an acre. Here is an illustration of what new crops can be made to do on new soil, or on soil in which alfalfa is a new crop.

Let us hope that the following roseate hue of the outlook for the farmer has much of reality in it: "A new door has been opened to the farmer. He stands on the threshold of a field of forest that in their power to increase human welfare are the most colossal that the world has ever known; the creation out of the unutilized plant world of an absolutely new plant food. Not two per cent of the edible plants of the world are cultivated in America, and of these the American farmer knows scarce a score. These wealth producers are being tamed by assembling from all parts of the world those related forms whose characters are desirable, and by crossing them to create new forms of life that the human eye has never yet seen, with flavors that the human palate has never before tasted. This is the new farming that has turned, or is turning the monotony of farm-life into the fascinating amusement of a life of discovery."

J. L. HARBOUR.



The Right Way to Grow Hogs

Pigs have sometimes been called "mortgage lifters," and really it seems they deserve the title. What other animal from a beginning of only two pounds can grow to 1,000 pounds weight? And bear in mind statistics prove that it costs less food to grow a pound of pork than either beef or mutton. Do you know why? It is because of the large digestive capacity of the hog.

It is certain that all growth and milk production is in proportion to the amount of food digested and assimilated. The right way to grow hogs, therefore, is to take proper account not only of the feed, but the digestive system.

DR HESS STOCK FOOD A TONIC

the prescription of Dr. Hess (M.D., D.V.S.) was intended for this purpose in particular. It takes charge of the digestive organs, compelling them to do their proper work.

Horses, cattle, cows, hogs and sheep are all dependent upon the digestion for every pound of growth and every ounce of milk. The cost of Dr. Hess Stock Food is paid back many times over, therefore, no stockman or dairyman can afford to be without it. Besides hastening maturity, Dr. Hess Stock Food cures and prevents disease.

Dr. Hess Stock Food owes its origin to the medical and veterinary colleges from which Dr. Hess graduated. Such medical authorities as Professor Winslow, Professor Finlay Dun, Professor Quitman and all the leading scientists recommend bitter tonics for improving digestion, iron for blood and tissue building, nitrates of soda and potassium for assisting nature in expelling poisonous material from the system. These ingredients and many others make up Dr. Hess Stock Food, and it **is sold on a written guarantee.**

100 lbs. $5.00. 25 lb. pail $1.60 } **Except in Canada and extreme West and South**
Smaller quantities at a slight advance }

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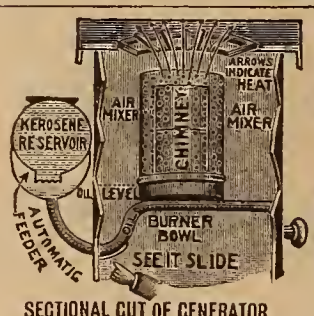

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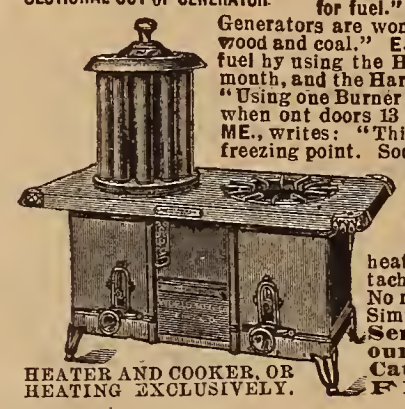
D. CARN, IND., writes: "It costs me only 4½ cents a day for fuel." L. NORRIS, VT., writes: "The Harrison Oil-Gas Generators are wonderful savers of fuel, at least 50% to 75% over wood and coal." E. ARNOLD, NEB., writes: "Saved $4.25 a month for fuel by using the Harrison Oil-Gas Stove. My range cost me $5.50 per month, and the Harrison only $1.25 per month." M. KING, VA., writes. "Using one Burner and Radiator, I kept a 16x18 foot room at 70 degrees, when out doors 13 to 20 degrees were registered." REV. WM. TEARN, ME., writes: "This morning 16 below zero, and my library far below freezing point. Soon after lighting the Harrison Oil-Gas Stove temperature rose to summer heat." WM. BAERING, IND., writes: "We warmed a room 13x14 feet, when it was about 10 below zero with one Radiator." Objectionable features of all other stoves wiped out.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FARM AND FIRESIDE

AN ILLUSTRATED FARM AND FAMILY JOURNAL

EASTERN EDITION

Vol. XXX. No. 3 SPRINGFIELD, OHIO, NOVEMBER 1, 1906 TERMS {25 CENTS A YEAR 24 NUMBERS

A Cement House

One of the most useful outhouses I have seen lately is one constructed from top to bottom from gravel and cement. It is eight by ten feet on the inside, with a ten-foot ceiling. The floor is cemented and is four feet below the surface of the earth. The walls of the building are a foot thick, with nearly two inches of air space running along the center of them.

It was constructed in the following manner: After the excavation was made, two-by-four oak pieces were set to each side and the ends so that when boards were nailed to them space was formed for the bottom layer of cement. When this was put in planks were nailed above these for another course. This plan was followed until the building was the desired height. Then an oval roof was constructed from oak boards with circular rafters resting in the top layer of cement. On this at the proper time was placed a cement roof. The roof rested on the framework until dry, then the framework was permitted to remain to strengthen the roof. The door facing is held in place by bolts laid in cement and projecting through its sides. The doors when hung will be double on the outside, packed in between with sawdust. The inner door will be light. The house will be fitted up with a stove and grates and used for a fruit dryer in the fall. In the winter it will be used to store fruit and vegetables in. There is no drain, but a large stone jar was set in the cement in one corner of the building and the floor made to incline toward it. W. D. Neale.

FRONT AND SIDE VIEW OF CEMENT HOUSE

Cow-Peas

I have had experience with growing cow-peas. First I tried a variety I found in the country which had been grown for years, and they were not recognized as cow-peas, but were called Indian peas. This variety made considerable vine, grew a yellow pea of medium size, and did very well for me a few years, but they got to blighting, from some cause, and often the vines grew up nicely and the pods were so dwarfed that there was not a pea in them. Then I tried the large black pea which made very good vine and bore well for me, but the leaves nearly all shed off by the time the peas were ripe enough to harvest. Especially was this the case in dry seasons. I also tried the Wonderful, or Unknown. This variety proved rather late in maturing for this locality.

The Whippoorwill pea was tried on a small scale a year or two ago and did well. This variety has the advantage of standing up better and of holding the leaves well, is a good bearer and medium early. The Whippoorwill does well when sown in corn or planted between the hills. I have some as nice cow-peas growing between the corn hills this year as I ever grew. While they are vining considerably, they will not vine so much as to give much trouble in cutting corn, and they stand up in bunches some places nearly three feet high.

I have never found it necessary to inoculate my soil for growing cow-peas, as they always grow plenty of nodules on the roots. The other day I examined the roots of a field of cow-peas belonging to a neighbor, and found very few nodules on the roots. The peas had grown well, the soil was moderately fertile, a black loam. I am not prepared to say whether the soil needed innoculation or whether there was already plenty of nitrogen in the soil and that the peas preferred to appropriate soil nitrogen to that from the air. A. J. Legg.

A Profitable System of Rotation

A practical system of rotation, adapted to the tobacco and wheat growing sections of Virginia and the Carolinas, is a four-course one, which, when once successfully inaugurated, is sure to prove the most satisfactory. Such a course consists in keeping the land in red clover during the first and second years, to be followed by a tobacco crop the third year, and this by one of wheat. Wheat and corn, which are surface-rooted plants, will do well after clover, cotton or tobacco, as these have long tap roots which extend down into the subsoil. It therefore follows that the last-named crops should be followed by one of wheat or corn or other surface-rooted plants. This may be called the governing principle in a correct system of rotation.

Should the four-course system of rotation be adopted, it will be necessary to begin in the fall by seeding one or more fields with wheat, so that the land can be seeded to clover the following February or March, so that it can occupy the ground until midsummer or early in the fall of the second year. A judicious rotation which includes red clover would be of benefit alike to the landowner or the renter, and therefore should be regarded as an indispensable requisite in profitable farming. W. M. K.

POTATO FIELD AT THE MASSACHUSETTS AGRICULTURAL COLLEGE FARM

The Problem of Farm Labor

How to secure satisfactory help on the farm is becoming a serious problem. In some parts it is difficult to secure any help at all at living prices. This must be solved by each one according to his own needs.

If the income from the farm is large enough, or can be made large enough to warrant the step, it would seem wise to build a tenement house. You may say "I do not need a man in the winter." Perhaps not with your present system of farming, but this is an age of change, and it may be that by changing your system and routine you can provide work the year round which will be profitable for you and your help.

Winter dairying may help you out. Perhaps it will not cost much more in actual money to have a man for twelve months than for eight or ten, especially if the man must earn enough in the shorter time to live on the whole year.

Let us suppose a case: You have a moderate-sized farm and keep from eight to fifteen cows. You employ a man for six or eight months, pay him twenty-five dollars or more a month, and sell your milk, mostly made in the summer, at summer prices.

Build a silo and keep more cows, doing most of the milking in the winter, thus nearly doubling the money you now get. Or, perhaps you are situated near a village that you could peddle part of the milk and make part into butter to be sold at retail.

Early potatoes, poultry and fruit may be a source of income for you. If you are not just satisfied with your present conditions, just look about you, and see if you cannot do something better. See if it is not more a question of farm income, the labor problem taking care of itself.

John Upton.

FARM AND FIRESIDE

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The Date on the "yellow label" shows the time to which each subscriber has paid. Thus: April, 1906, means that the subscription is paid up to, and includes the April 15th issue; May, 1906, means up to and including May 15th issue, and so on. If your subscription begins with February it will end with next January 15th, which gives just twelve months.

The above rate includes the payment of postage by us. All subscriptions commence with the issue on press when the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post Office Money Orders, Bank Checks or Drafts. *When none of these can be procured,* send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. *Do not send checks on banks in small towns.*

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Always give your post office at the beginning of your letter.

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FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

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Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

Comment

PLEASE read the standing notice about advertisements at the head of this column. Then read carefully the advertisements in the paper. Advertisers cannot tell all about their goods within the limits of the space taken by them, but they will give you full information if you write for it.

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"A Tax-Dodging Case"

The Crowell Publishing Co.,
Springfield, Ohio.

GENTLEMEN—

You published in the issue of FARM AND FIRESIDE, September 1st, a signed article under the heading of "A Tax Dodging Case" which will doubtless make an erroneous impression upon Union Central policy-holders and the public.

The writer states that the suit was for the recovery of taxes due on money. He omits any reference to the larger feature of that suit, namely: the surplus to the credit of the Life Rate Endowment policy-holders (deferred dividends).

The Union Central has made its returns for taxation, in accordance with the laws of Ohio, year after year. This law requires a statement of cash on hand for direct taxation and an exhibit of credits subject to taxation against which it allows an offset of certain "debits."

The following returns were made:

1905—Debits	$43,148,766.90	
Credits	42,814,266.80	
Excess Debits		$334,500.10
1906—Debits	$48,588,451.22	
Credits	48,564,289.08	
Excess Debits		$24,162.14

If this same progression upon the part of credits should maintain, the Company will be paying tax upon a very large amount, within a very short time.

The Union Central has always returned the cash balance, as shown by its books. The issue on this cash return was raised as to two years. Expert investigation developed the following facts: Checks were drawn (crediting cash and charging mortgage account) payable to certain applicants for loans. It was bona fide business. The applications were presented in the regular routine—having been carefully prepared by local agents—the securities had been examined by district agents—the whole presentation had been approved by the Finance Committee prior to tax day. These checks were held awaiting the report of the negotiating agents as to how the final settlements were to be made. It subsequently developed that the money in two thirds of these loans had actually been advanced by the agents, who, in turn, took the sight draft of the borrower upon the Company payable to their order. When these sight drafts were presented they were paid with accrued interest and the original checks were canceled.

The first case examined by the experts, was that of H. R. Gordon, for which the Company's check, payable to his order, was drawn for $3,500 on April 5, 1901. This loan was actually closed by the negotiating agent March 23, 1901. When the agent had complied with the rules he was paid $3,560.67, or the principal and interest accrued. It was not claimed that the original $3,500 check reached the payee Gordon, but that that amount of money did reach him through a substitute check to the agent. The Company indicated, prior to suit, that it was ready to pay tax upon those loans which failed to be completed.

The Life Rate Endowment "deferred dividends" are a liability and have always been returned in the list of "debits." The suit decided in the lower court is an endeavor to establish a new principle, namely: that there is a contingency in this deferred dividend liability; that it is not a "debt owing" and therefore ought to be eliminated from the "debits" in making the tax returns; or, in plain terms, the deferred dividends of the Life Rate Endowment policy-holders ought to be taxed. If this decision is sustained in the Supreme Court the policy-holders will not only have to pay the judgment rendered, but they will be subject every year thereafter to a tax upon their deferred dividends.

The policy-holders of the Union Central paid taxes in 1903 amounting to $113,152.88; 1904, $138,748.03; in 1905, $146,636.02. The report of the Auditor for the State of Ohio for 1904 recites the fact that he received from the Superintendent of Insurance, fees and taxes amounting to $985,164.14 collected under retaliatory laws. This means that all Life Insurance Companies from other states which collected $138,748.03 from the Union Central upon its premium receipts in 1904 were required to pay tax upon their premiums, collected in Ohio, to the Treasury of the State. Hence, the Union Central has contributed indirectly, to the finances of the state, a very large amount.

Your correspondent is unsparing in his criticism of the Union Central officers and their methods. A more careful consideration will develop the fact that there is no personal profit to the officers in this issue, and if their course of procedure should prove ultimately to have been incorrect, the mistake will have arisen from an over-anxiety to protect the interest of the policy-holder. Yours respectfully,

[SIGNED] J. R. CLARK, President.

"Over-anxiety to protect the interest of the policy-holder!!!" How often that false note has been sounded during the past two years of insurance investigation. It is not very encouraging to those hoping for insurance reform to see the new president of an old company now trying to step to the same old tune of the Hydes, McCalls, Drydens, McCurdys and other unctious, sanctimonious hypocrites who have brought the life-insurance business of this country into great reproach.

It is no defense whatever to claim that, if there were violation of the laws of Ohio by the officers of this company, it was done to protect the interest of the policy-holder. But let us test the sincerity of "over-anxiety." During the five-year period from 1901 to 1904, inclusive, the Union Central, according to its reports to the Ohio Superintendent of Insurance, received from its policy-holders premiums amounting to $30,417,843, and its actual expenses of management were $7,186,697. These figures show that over 23 3-5 per cent of its premium income was used up, or booked, as expenses of management. This is a higher expense rate than that of the Equitable or of the New York Life, and almost as high as the Mutual Life for the same period, 1901 to 1904. These "Big Three" were partially investigated and exposed by the Armstrong legislative committee a few months ago. Now the wanton extravagances and peculations of their officers, aggregating many millions of dollars in losses to the policy-holders, were covered up in the book-keeping under the general head of "actual expenses of management."

The investigation also showed that the policy-holders bore all losses incurred, while the tricky trustees took the lion's share of all profits made in syndicate speculations with the policy-holders' money. The dear policy-holders pay the freight every time.

The expense rate of the Union Central is double what the expense rate of a good company managed with strict economy in the true interests of the policy-holders ought to be. It is one half higher than the expense rate of safe, sound companies that pay fair salaries to officers and good commissions to agents. If, from 1901 to 1904, the Union Central had conducted its affairs on the liberal expense rate of 15 or 16 per cent instead of running them on the extravagant expense rate of the three notorious New York companies, it could have paid back to its policy-holders as extra dividends (so-called) one third of the $7,186,967 premiums received from them. If it had a particle of real anxiety about their interests, why did it not save for its policy-holders the snug little sum of $2,395,695? This estimate is for one five-year period only. The company has been doing business for thirty-seven years. Why does it not reform its expense rate now?

The Union Central is not a mutual, but a stock company. Its capital stock of $100,000, par value, is held by a few people who receive annual dividends of 10 per cent. The present worth of the stock, which is not on the market, is unknown to outsiders, as the corporation for years has been piling up millions of undivided surplus which belongs, not to the policy-holders, but to the stockholders. It is stated on reliable authority that the corporation could now "reinsure all its risks, pay all of its obligations and divide over $8,000,000 among its stockholders." It is not hard to find the real cause of "over-anxiety."

Some things in President Clark's letter have no relation to the case decided by Judge Hoffheimer. For example, taxes paid in 1903, 1904 and 1905 have nothing whatever to do with taxes dodged in the five years from 1897 to 1901. They do, however, raise another important question—a tax-shifting question. Are not taxes properly due on personal property held by the company and belonging to the stockholders paid out of the money of the policy-holders?

President Clark says, "The Union Central has made its returns for taxation in accordance with the laws of Ohio, year after year."

Judge Hoffheimer says: "I find the total amount of bank deposits omitted in the years in question, and upon which the treasurer is entitled to recover is: 1897 $89,200; 1898, $349,000; 1899, $119,400; 1900, $60,800; 1901, $674,000. I find the 'credits' omitted in the years in question on which recovery should be had: 1897, $1,095,700; 1898, $823,200; 1899, $1,092,100; 1900, $1,254,500; 1901, $1,259,200. I find that the total amount of values omitted, together with the taxes thereon, to be

YEAR	OMITTED AMOUNTS	TAXES
1897	$1,184,900	$31,028.68
1898	1,172,200	29,669.31
1899	1,211,500	31,184.01
1900	1,315,300	34,171.49
1901	1,933,200	47,982.02

In addition to which, I find that the treasurer is entitled to recover $8,701.37, which is five per centum allowed by law by virtue of Section 1094, Revised Statutes.

"In view of the foregoing, under the law and the evidence, I find for the plantiff in the sum of $182,728.88, and order judgment accordingly."

The readers may choose between the assertion of the self-interested president of the Union Central and the decision of an able Judge of the Superior Court.

Judge Hoffheimer's full, broad and comprehensive opinion, completely covering every point in the case, is published in the September 10, 1906, issue of the Ohio Law Reporter (Cincinnati, Ohio), and should be read by everyone interested in this notable tax-dodging affair. They will find that the defendant's contention, certification theory and legal legerdemain in regard to the check transactions and the listing of debits and credits for taxation returns are entirely swept away.

For the public welfare and in the true interests of its policy-holders the Union Central needs to be "sit on" by an Armstrong legislative committeee with a Hughes for examiner-in-chief. It offers a fertile field for investigation. It writes "deferred dividend policies," which are now outlawed in New York State as one good result of the insurance investigation there, and which ought to be prohibited in every state in the Union. It has a devious way of making a non-forfeitable policy forfeitable through notes given for premiums. It does a large business in loaning money secured by mortgages on farms and real estate. Farm borrowers, especially, would be benefited by having some of its methods reformed.

One of its schemes is to get the person borrowing money from it on real estate to take out a life-insurance policy equal to, or greater, than the amount borrowed, with premiums payable in a short term of years, usually ten. The amount of the loan originally required is expanded to cover several premiums, and the whole is secured by mortgages on the farm, or other real estate. The company requires the assignment of the policy as collateral security in addition to the mortgages, but that is clearly a pretense, because the loan is amply secured by the real estate. Under the insidious clause in the premium notes, that forfeits the policy if a single note is not paid when due, the borrower, burdened with an increased indebtedness, runs great risk of losing all his policy rights. The company can collect its premiums, loan and interest by foreclosure. Recorded cases in the Ohio courts show that the company has worked these schemes with disastrous results to the borrowing policy-holders.

And yet the Union Central modestly takes to itself the tribute awarded to one of old: "When the ear heard me, then it blessed me; and when the eye saw me, it gave witness to me: because I delivered the poor that cried, and the fatherless, and him that had none to help him. The blessing of him that was ready to perish came upon me: and I caused the widow's heart to sing for joy."

J. C. Barnett.

* * *

Advice About Most Profitable Crops

THE following is a sample of many similar requests, and is quoted from a letter sent me by E. B., of Chester, Pennsylvania.

"Will you please tell how I could advantageously use a building-lot fifty by two hundred and thirty feet which until four years ago was part of a farm, but is now situated on a fashionable street. Not having any use for it at present, I would like to raise some vegetables on it for my own use as well as to sell. Which crop do you think is the most profitable? I would have to employ somebody to do the work, as I am otherwise engaged."

City and village dwellers frequently have very exaggerated ideas concerning the value of crops that can be grown on a village lot. The lot in question contains a quarter acre, and its rent value, for agricultural purposes, is hardly more than $1 or $1.50. It is probably not excessively fertile. The cost of producing a good vegetable crop on it is largely in the manure and its application, in the labor of planting and tending the crop, in skilful management, and perhaps in the judicious sale. The owner who lets somebody work the land on shares, even if his share, for the use of the land, is only a third or less of the crop usually has the better end of the bargain, as he will receive for his share much more than the rent value, and in most cases, more than he would realize if the land was worked by hired labor.

Nobody will be rash enough to name any particular crop as most profitable. The crop that proves very remunerative one year in one place may, under other conditions, turn out to be entirely unprofitable in another year or another place. Much depends on market conditions, on the season, and especially on skill in management. Any crop that is considered especially profitable requires also an especial amount of skill and a large proportionate amount of labor, and this labor just at the proper time. This is the case with onions, celery, strawberries, etc. In a case like this, I would select a crop that requires a comparatively small amount of skilled labor and promises fair returns, such as early potatoes. If the land is good and well tended, you may grow fifty or seventy-five bushels of Ohio, Hebron, Noroton Beauty, Eureka or Irish Cobbler on it, and possibly sell the crop at retail for as many dollars, and all this at a cash expense for labor at much less than half of this amount. But there is also the chance of failure, entire or partial. The exact profit, if any, is for your own superintendence of the work and timely attention to details. Failure in this will mean failure of crop. Farming is not a safe undertaking for the novice.

T. Greiner

About Rural Affairs

Flowers or Weeds

A WASHINGTON reader sends me parts of a creeping plant which he wants me to name. He says he got it from a seedsman who sent him a "wild-flower garden-collection." He has tried to get rid of it by plowing both in summer and in winter. It is still there and holds the fort. The specimen arrived so badly dried up that I could not tell whether it was wild morning-glory or some other weedy creeper. I know, however, that we often introduce into our grounds plant seeds for which we paid good money to a seedsman, and which we planted as flower plants, but which we would afterward be glad to get rid of.

About ten years ago I grew a trial plot containing several hundred different kinds of annual flowers. Among them was a plant having a beautiful, gayly colored flower (name forgotten). It proved of such persistence and ruggedness that it spread all over the lawn near by, and run everything else out. For some reason unknown to me not a plant of it appeared last spring. Natural causes seem to have come to my relief and freed me from the pest. Before we plant a thing we should know what it is and what it may do. I do not care to plant wild-flower garden-collections.

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Coal-Ashes for the Land

An "old subscriber," in Colorado, says he has a quantity of coal-ashes, and asks whether they would benefit or harm his land. It is generally conceded that there is not much of plant-food value in coal-ashes, unless they also contain wood-ashes from the kindlings, or ashes from burnt bones, etc.; in which case they would furnish to the soil a small amount of potash and phosphoric acid. I have never seen a case of coal-ashes being a detriment to a piece of land, no matter how freely they were applied. On the other hand, I know of many instances where the free application of coal-ashes has greatly improved the texture and general "workable" condition of soils of a somewhat stiff and clayey character.

Two years ago I gave one of my strawberry patches a generous mulch of coarse coal-ashes containing many clinkers and pieces of unburnt or half-burnt coal. The coarsest of this stuff was afterward raked together in piles and carted off to be burned in the furnace. I was told at the time that the application of so much of the coarse ashes would result in ruining an otherwise nice piece of garden soil for growing small garden crops, as so much coarse stuff would be left to hinder the proper working of the seed drill and the hand wheel-hoe. At this time, the land having been plowed three or four times since, there is not even a trace of coarse stuff to be found, and the texture and also the productive capacity of the soil have surely been greatly improved.

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Weed Extermination by Chemicals

A year or so ago I received from a New York importer a sample package of a "weed exterminator" in powder form for trial. I believe this was a patented article made in Germany, and claimed not only to kill weeds, but also to stimulate the grain or other crop to a more vigorous growth. The bulk of this powder, apparently, consisted of iron sulphate, which by the escape of the water of crystallization had become pulverized. It may also have contained some chemical containing nitrogen, so as to give it slight stimulating properties. I tried this on the greenhouse bench and in spots in the garden by scattering it freely over the surface of the ground. It had no effect on the weeds, however, and I was not surprised about it, as I had tried solutions of copper sulphate before that on the weeds in my garden, especially purslane and chickweed, without getting the desired results.

It seems now definitely settled, however, that there are some weeds, notably wild mustard, also daisies, cockle-bur, bind-weed, ragweed, sheep-sorrel, yellow-dock and many others, that can be wholly or partially destroyed by spraying with a twenty-per-cent solution of iron sulphate (about one hundred pounds to fifty-two gallons of water). The tests made last year by the Wisconsin Agricultural Experiment Station on farms infested with wild mustard in three counties were quite satisfactory. The iron-sulphate solution was applied in June with a one-horse sprayer imported from Germany, which, with hose attachment, covers a strip twenty feet in width and has sufficient capacity to treat twenty to twenty-five acres per day. It requires about one hundred pounds of iron sulphate per acre, and this material may be bought at $11 a ton in small quantities, and in bulk at considerably less.

The best time for making the application is on a calm, bright day, after the dew has disappeared, as the work is more effective if the solution is put on in warm sunlight. Where rain follows the spraying within a few hours, the extermination of mustard will not be so perfect. Grain fields should be sprayed when the mustard plants are in the third leaf or before the plants are in blossom in order to have the spray do most effective work. This is on the authority of Prof. R. A. Moore, of the station already mentioned.

I wonder, however, why it was necessary to import a sprayer from Germany. Are our own manufacturers not furnishing good enough sprayers? I have sent several of our American sprayers, one-hundred-gallon capacity, to Germany where their general serviceability and other advantages were much admired.

◈

City and Rural Papers

When we see anything agricultural in a city daily, we can usually make up our minds that it isn't so. A year or two ago the city papers transformed the harmless cabbage hair-worm into a poisonous "cabbage snake" which had dangerously poisoned whole families.

A few weeks ago a Los Angeles daily published a story to the effect that the melons in the Coachella Valley melon district had been rendered dangerous as food this season on account of the vines being infested by aphis. The California "Fruit Grower," commenting on this report, says:

"The apology for a newspaper man who wrote that story ought to be shut up in a barrel where he could do no harm and be fed through the bung-hole until he attains years of discretion."

The plain facts in the case are, that the average reporter of a city daily knows no more about agricultural subjects than we know about agricultural conditions on the planet Saturn, or than the American aborigine knew about the principles of Christianity before Columbus started out on his journey westward to discover the way to the East Indies. If you want reliable information on agricultural matters, depend on the leading agricultural papers, never on the city daily.

◈

Profits in Theory

It is easy to figure out profits on paper. The trick is how to get them in practise. Some of us have discovered the truth of this in growing onions, in raising poultry, in the ginseng business, in breeding Belgian hares, and one man, at least, has found this out in raising skunks. If reports are true, this man, who lives in Chautauqua County, New York, stocked his "skunkery" with about forty of the malodorous animals, expecting to increase the number by natural propagation to about three hundred within the year and sell about $900 worth of hides and oil. The story goes that the original forty skunks soon go into a big fight, and had it out until only one was left, and it crawled into a hole and died. In most of these products, odd or regular, it will not do to depend too much on the profits that can be figured out on paper.

T. Greiner

* * *

Salient Farm Notes

The Little Farm Well Tilled

THE last year I worked as a farm-hand I worked with one of the nicest young fellows I ever knew. He was quick and bright, and honest as the day, never slighting his work. I played second fiddle to him, because I found it impossible to keep up with him, and it seemed I never could do my work quite so wel as he did his. Three years later I learned that he had married an intelligent and hustling young woman, bought quite a large farm and was making things fly. Happening in the locality about two years afterward I called on him. He was working from daylight to dark and grabbing every dime in reach trying to pay for that farm, and his wife was right up with him. Both were young and strong, but the pace was killing. I told him to go ahead with his work and I would look over his place and talk to him after supper.

The farm was a fairly good one, a quarter section, and his crop prospects were very good, but he was trying to do too much. After supper, at nine o'clock, we sat down and chatted while his wife cleared up the dishes. He asked me what I thought of the farm and his prospects generally. He asked for a candid opinion and got it. I told him to sell half the land at once and stop his everlasting slaving. I said he was killing himself and his wife at the pace he was going. That they would be old and incapable of enjoying the farm after they became its owners. He said the mortgage was only nine thousand dollars, and the interest only eight per cent, and he thought he could clear the whole thing off in ten or twelve years. As I was going out of the gate next morning I shouted back to him to sell half the farm. He laughed and shook his head.

He held it and paid for it. It took twelve years to do it. Three years after he had finished the job I met him and his wife at the state fair. He did not look well, while his wife was but the shadow of her former self. "You did not take the advice I gave you and sell half that farm?" I asked. "No," he replied, slowly, "and I think I made a mistake in not doing so. The cost was too great. We've got it, but we used ourselves up in the getting!" I believe that if he had sold half the farm, paid for the other half and took life easier he would be alive and strong to-day, and, with his wife, be enjoying the fruits of good management of a little farm well tilled.

The foregoing is my answer to "M. C. C.," of Kansas, who says he owns eighty acres now, and is thinking strongly of buying an adjoining section, going in debt for the greater part of the purchase price. He says he and his wife are young and strong and he thinks they can make it all right. Very likely they can, but youth, strength and health are worth more than broad acres. Keep the former and let somebody else have the latter. I know eighty-acre farmers who are near the three-score mark and are still young looking, strong, healthy and happy. Their wives are the same. They work eight to twelve hours a day, as they feel like it, and grow full, not average, crops. One of them last year husked twelve hundred and seventy bushels of corn from fifteen acres. The average on farms adjoining was about thirty-five bushels to the acre. He cut eighteen tons of hay from six acres, while the average of his neighbors was about one ton per acre. Another says eighty acres is too much land for him to farm, and he rents half of it to neighbors, who till it according to his specifications and almost invariably grow good crops.

It is a fact that it is not the man who farms the most acres or works the hardest who is the most successful farmer, but the man who manages best. If one can produce a thousand bushels of corn on ten or twelve acres by good management, what sense is there in buying thirty acres and half farming it to produce the same quantity? I have always contended that eighty acres is a large farm, and it is especially so at this time, when help is so scarce and difficult to obtain. I am satisfied that there will come some great changes in the industrial world before long, and labor will seek employment in the country as it did in past years. Then farmers will become managers instead of toilers, and skill will count for even more than it does now. But we have to deal with the problems confronting us at the present time, and the man who is content with a medium-sized farm and freedom from debt is certain to live longer and enjoy life vastly more than the one who loads himself down with debt to be the master of broad acres. Capitalists have been investing quite largely in land at a hundred and twenty and up to a hundred and forty dollars an acre. But capitalists are not always wise. Lots of this land will not pay four per cent on the capital invested. In time this land will again be on the market at a reasonable price, and those who are now forced to be tenants because land is so far above their reach will have an opportunity to become owners and pass the land down to their children. As is well known, the owner is a vastly better and more conservative citizen than the tenant, therefore is to be hoped that this change will come about in the near future. It cannot come too soon.

"W. A.," Ohio, writes that he has recently purchased a fifty-acre farm on a trolley line and is about to become a "rural Rube" (I would suggest that it would be better to call himself a farmer), and he wants to know what he would better grow in the line of crops and keep in the line of stock. He says he owes about six hundred dollars on the land yet, and would like to know whether it would be better to hold onto his present position, which pays him sixty dollars per month, until he gets the farm paid for, or to move upon it at once and work the six hundred out of it. My advice to any man situated as he is, would be to hold his position until every penny of the debt on any country place he may buy is paid. It is not an easy matter for a man who has lived in the city a long time to move upon a farm and make it yield a profit right from the start. Some have done it, but many have failed. Get it entirely clear of debt before you move on it, then maybe you can make a good living the first year, and gradually work into a paying business. He says that wealthy people are buying along the trolley in that direction, and as his little farm is beautifully located, and has four acres of natural grove about the house, he thinks that one of them will want it after a few years, and he can sell at a good price.

What is the matter with you holding it yourself and having a beautiful home and surroundings? If you own the place, are out of debt and have only a living to make, why not make a permanent home of it for yourself and family? Arrange it to suit yourselves without any reference to anybody else, or to whoever may want it. After you get started you can make a good living off the land, and something besides, and keep adding to the beauties of the place by judicious planting and building until you have a home quite as beautiful and convenient as anybody on the line. I don't like the idea of thinking because one is in moderate circumstances he must plant and beautify for some wealthy person to enjoy. Why cannot one build and beautify for himself and family, and then quietly enjoy it? I know a man who has planted and beautified a place until it would readily sell for ten thousand dollars, but he will not sell. He says he fixed the place up to please himself and wife—for their own enjoyment, and no one can have it until they are done with it. He is in very moderate circumstances, but says that he and his wife can enjoy beautiful things as well as anybody, and now he has them he intends to keep them.

I would suggest that "W. A." keep a couple of cows, twenty or thirty pigs and about fifty fowls the first year he goes on his place, and grow the necessary feed for them. Pay close attention to how the best and most progressive farmers in the locality manage, and don't be afraid to ask questions. Don't go to a "wind-organ" for advice and instruction, but to a successful farmer. The successful farmer is the one who is making money. The "wind-organ" is the man who can farm skilfully with his mouth, but fails with his hands.

There is quite a nice thing to be made raising poultry on such a place as this, and if the owner has a good supply of business sense, energy and perseverance, he could make poultry raising pay well. The poultry field is full of fads, fancies and nonsense and one must steer clear of these, or his expenses will exceed his receipts. The best feed in the world for poultry can be produced on the farm, and it is not necessary to buy the mixed stuff sold at two or three prices. One must mix his own feeds to be sure of having a really nutritious article, and one that is free from undesirable trash, and the best and soundest grains are none too good. Last year I tried a bag of a widely advertised brand of poultry food and infested my place with some of the meanest and most pernicious weeds that grow.

Fred Grundy

* * *

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Read about the great November 15th number on pages 6 and 26.

The Wild Carrot

I HAVE just returned from a round of the farm in quest of our latest, and one of our worst vegetable nuisances—the wild carrot. We have been waging a constant warfare upon them for three or four seasons, and the issue is at present undecided. Were it not for the fact that it can readily be discerned, owing to its very white umbrella flower I am sure it were a hopeless task. Where it has half a show the weed will grow as high as three to five feet with a single straight stem with numerous branches, and from one of these plants undisturbed I have counted upward of eighty seed heads, each containing three hundred to more than a thousand seeds. When cut off by the binder or mower, or when nipped by sheep or cattle, and they frequently are, particularly when young, they grow up in a numerous cluster of stems and often smother out all other vegetation in a plot of eighteen inches in diameter.

The habits of the wild carrot are rather peculiar, in that I am at a loss to know where the seed came from, and how they were carried to the places where plants were found in abundance this year. The seeds are about the size and shape of a very small grain of wheat, have a number of small points or tenacles which enable it to hold to the coats of horses, sheep, cattle, or even hogs, though its hold is not at all tenacious. To be scattered by the animals on the farm would, of course, necessitate the presence of seed on the farm, and particularly in the field in which I have found them so numerous. Since I allowed none to seed last year, that is I do not think I did, I have concluded that seed is carried by the birds or by dogs of hunters from farms near by.

We have farms in our immediate neighborhood where meadows are white with them and where pastures are greatly damaged, since after they have grown of any consequence nothing will eat them owing to a peculiarly pungent taste and smell. They have one other redeeming quality and that is that they do not seed until wheat and oats are harvested and are not thereby mixed with the straw and manure to be scattered broadcast.

We have held them in check so far, though my neighbors, who have as yet not appreciated the damage they might do, have made no particular effort, and hence have them in abundance. I have usually selected a time when too wet to do aught else to go over the farm and pull all I can find. You may think you have them all, but in a week others will spring up above the weeds around them and show their large white umbrella-shaped heads, and another quest is necessary, and still a third. At this time, August 10th, those which made their appearance earliest would ere this have matured seed sufficient for them to grow, and hence, if an effort were made to combat them, they must needs be gathered up and burned. So at this time we have a sack in which we put them, that is, those maturing seed, and carry them where they will not be disturbed, and when sufficiently dry they are burned. They can be overcome, but it requires a concerted effort. A spasmodic impulse prompting a single individual will avail but little in a war of extermination against any of the weeds that infest our farms. A general realization of the damage incurred by means of them, and a spirit of coöperation among the farmers will soon rid the community of wild carrot, as well as many other quite common and very hurtful weeds. None of us have been as careful as we might. We have not studied the nature of our vegetable enemies as closely as we should, and have not done as well as we knew, else many of them never would have been introduced, and, having been introduced never would have spread beyond the farm or field in which they were first noticed.

It is said that a good housewife admiring the pretty flower of the wild carrot planted some of them in her flower-garden, and from this planting, so heedlessly and so inadvisedly made, have sprung a pest that the township trustees could well expend hundreds of dollars to eradicate. Nor are we to condemn the woman. It was a man who introduced the gipsy-moth into Massachusetts, and that state has spent a million dollars to arrest its ravages, and the pest is still on the increase. This brings us face to face with the fact that eternal vigilance is necessary that no pest be introduced—that with the greatest degree of care they slip in unaware; and once having them their elimination must be sought. I have found it a good thing while strolling over the place on tours of inspection to carry a hoe, that noxious weeds may be destroyed when discovered; to have this same weapon when going for the cows in the evening. I always have my eyes open for them, and mark them for slaughter if I haven't the necessary appliances at hand. This plan has eliminated the wild parsnip, the cockle-bur, burdock, and but few teazle remain. It doesn't cost a great deal of effort, and I am sure would rid many of our farms of their vegetable enemies and would add greatly to the appearance of our homesteads.

Ohio. FRANK BLACKFORD.

Farmers' Correspondence Club

The Bee-Wintering Cellar

In this cold climate bees consume about double the quantity of stores outdoors than in. It is far too expensive to practise outdoor wintering, even if well packed. Although I practise cellar wintering, I invariably leave a few colonies outdoors, just to see how they will compare with the cellar-wintered bees at the opening of the honey harvest.

The purer the air is in a cellar in which bees are wintered, the greater are the chances of success. It is preferable to have no vegetables in a bee cellar, but this is not always possible, so the next best thing should be to remove all rotten cabbage heads, potatoes, or any other vegetables that may be in the cellar, at frequent intervals.

If any mold is in the cellar it is a good thing to fumigate with sulphur a week or so before it is intended to carry in the bees. After the fumigation is complete the cellar must be well aired, for traces of sulphur fumes would make the bees uneasy.

Dampness in a cellar is detrimental to the welfare of the bees as well as the occupants above, so it should be gotten rid of by drainage. A drain also serves another purpose when intelligently used. It admits fresh air into the cellar. I have a drain running out of my cellar about twenty-five feet in length, but this really is too short, for during cold weather I have to close it to keep the temperature from going too low, and were I to build another cellar in which it was intended to winter bees, things would be so arranged that the incoming air would have to pass through some seventy-five to one hundred feet of drain tile. This would so warm the air before entering the cellar that there would not be much danger of the cellar temperature going down too low.

For stands on which to set the hives in the cellar, I nail together six-inch boards so they will stand on their edge, of course. Scantling are also used by some on which to set the hives.

Light disturbs bees to quite an extent, so windows must be covered, but this makes it so dark that the housewife may object, that she is liable to make the mistake of preparing cabbage for dinner when she really intended to have some other vegetable! Well, the door can be left wide open for a short time, which will generally admit enough light to see what one wants. If, however, potatoes or some other vegetables are to be removed from the cellar and hauled to market the cellar door will have to be left open for several hours at a time; in such a case, a large canvas should be hung in front of the hive entrances to exclude as much of the light as possible.

Another way to manage this light problem in a cellar not specially designed for bees is to place the hives with their entrances toward the wall. My objection to this method is that I cannot examine the entrances of the hives during the winter to rake out dead bees. For sometimes the death-rate is above the average, at least for individual colonies, and the requisite amount of air cannot enter if the hive entrances and bottoms of hives are not cleaned of dead bees from time to time. Someone may suggest that the hives need not be placed so close to the wall that a person cannot pass between. Well, that is feasible, if one has room enough.

As it is important not to have the temperature of a bee cellar go below forty degrees F., I cover the north end, the only part exposed, of my bee cellar with pine needles. Some years when I neglected it I shoveled snow against the cellar wall as soon as there was enough on the ground.

PUTTING AWAY BEES FOR WINTER

Wisconsin. FRED STROHSCHEIN.

Fruit Growing for the Farmer

The horticultural papers paint rose-colored pictures of the profits to be made in growing fruit, and urge the farmer to plant more trees, while every year a swarm of fruit-tree agents descend upon us singing the same old song, and displaying colored plates of fruit that may be wonderful—or worthless. It takes more than a finely colored picture to make fruit good to eat—and sell. A nicely colored Ben Davis apple is good to look upon, and a tree loaded with it is a thing of beauty, but who wants to eat it? The man who wrote that "beauty is only skin deep" probably had just looked upon and admired—and then sampled one of those apples.

Are the rosy pictures drawn by the papers and the agents justified? As I write I can look out upon trees loaded with the finest autumn apples, excellent either for cooking or eating, and there is no market for them at any price. Last year they were picked and hauled to town, a buyer having agreed to take them, but when they were there he could not dispose of them, and said so, paid for the expense of picking and told us to bring them home again. They were fed to the hogs. For years the best winter fruit has little more than paid for the labor of hand-picking and hauling to town. It is rather discouraging to hand-pick several hundred bushels of apples, and then have the packers paw over and pick out about one third of the very best ones, bruising the rest and leaving them to be picked up and sorted again, and put in the cellar to be fed out. It's all the more disappointing when the few they do take are so meagerly paid for. With our three hundred apple trees, hundreds of bushels of fruit is consumed by the hogs and cattle each year, because there is no market, or else prices are so low it does not pay to pick by hand and haul to market. Yet the haul for us is but little over a mile; what for those who have to draw eight or ten miles? It was not always so. When a boy, I remember we got good prices for apples, and there were always several buyers eager to secure all we had without culling in the way packers do now.

It would be more profitable for us, and for thousands of other farmers to cut down everything except the very best, enough for home consumption, and devote the land thus cleared to other things. A few trees of the very best summer, fall and winter fruit, well cared for, to supply the family with abundance, is all that the general farmer ought to attempt. Let the fruit growing for the big cities—and the small ones, and for export, be done by someone who will make a business of it, attend to the cultivation, spraying, pruning, picking, storing and shipping as it should be. The man who makes a business of fruit growing would plant only the best-selling kinds. The average farm orchard is, owing to the persuasive tongues of tree agents, made up of various kinds, about nine tenths of which are commercially worthless.

The orchard, if it is to be profitable, must be cultivated the same as other crops, must be sprayed at the proper times, and well cared for. The average farmer is too busy at other things to spray and cultivate at the proper times. Hence, I say he should not try to combine fruit growing with general farming.

Michigan. APOLLOS LONG.

Apple Lumber

The millions of saw-handles that are being made nowadays come largely from the apple orchards of Michigan. At Hartford is a sawmill that deals in this kind of material. All of the orchards within two or three hundred miles are closely watched for any trees that for any purpose may be cut down, when they are bought up and shipped to the mill.

There is now stacked up in the yard at Hartford over 100,000 feet of this material. It is being sun dried, and shortly will be shipped to Indianapolis, where it will be made into handles, the timber being particularly well-adapted for the purpose.

The fruit raiser is thus able to find some use for such timber as would otherwise be wasted or used for fuel. He should keep a lookout for the apple-lumber buyer before he saws it into firewood.

Illinois. J. L. GRAFF.

Apple Boxes

This is my third season in what may be termed experimenting with boxes for shipping apples. Have shipped to commission houses in Pittsburg, Cleveland and other points, and without exception the fruit in boxes have netted twenty per cent more than when shipped in barrels, and from twenty to thirty-five per cent more than when sold to local dealers. The box used is made up of 12x14 inch elm head and one half inch No. 2 pine—the length (inside) 16 inches. Three boxes cost less than one barrel.

New York. E. H. BURSON.

Farm News Notes

The apple crop this year is reported to be very large in Kansas, Arkansas, Iowa and Nebraska. The banner year for apples was that of 1896. It is predicted that this year's crop will be nearly, or quite as large.

The work of exterminating the gipsy-moth, which has done so much damage in New England, especially in Massachusetts, Rhode Island, New Hampshire and parts of Maine, is progressing satisfactorily. *

Review of the Farm Press

The Use of Phosphate Rock

IN THE "Jersey Bulletin," W. F. McSparran, a practical dairyman, gives his experience in using phosphate rock, treated and untreated, as follows:

Of the three prime essentials in the soil ration of plants—nitrogen, potash and phosphoric acid—in a large majority of our agricultural soils the latter element seems to be most generally lacking, or at least there are very few soils upon which applications of commercial phosphoric acid will not materially increase production.

The phosphoric acid is not only a direct plant food, but it is supposed to actively influence other soil minerals, such as, for instance, potential potash, toward becoming available for plant use.

Phosphoric acid to a plant is the same, whether it be derived from the rock mines of South Carolina or Tennessee or from the finest ground bone. Don't misunderstand me to say that fine ground bone is not a more valuable fertilizer than fine ground rock, but rather that per unit of available phosphoric acid, that unit of one is no more valuable as plant food than the unit of the other.

In the finely ground rock phosphate there is usually found a phosphoric acid content of about 28 per cent *insoluble*. By treating the ground rock with sulphuric acid, the acid phosphate of commerce is produced, carrying an average of about 14 per cent *available* phosphoric acid. In a ton of acid phosphate, therefore, there is a considerable amount of sulphuric acid added to the soil, having no possible beneficial effect in plant production.

On the contrary, there is pretty high authority for the supposition that in time this free acid has a decidedly harmful effect as related especially to some crops. Growing out of this fear that we were working a damage to certain characters of soils, if not to all soils, by the extensive continued use of acid phosphate as a fertilizer and an agent, has come the extensive revival of using the untreated—that is, the natural, finely ground phosphatic rock—as an artificial source of phosphoric acid.

Some experimentors are strongly for it and some others as strongly against it, with the former rather gaining ground. Some practical users are for it and some against it.

Within certain limitations I am for it. If I were to plant a corn stubble back to corn next spring, and wanted to apply phosphoric acid, I would use acid phosphate. If I had a growth of green rye or crimson clover to plow down, instead of as in the other case, I would use the natural rock.

If I should manure my ground for wheat this fall I would use the natural rock; if the wheat would have to go in without manure my choice would be acid phosphate. I cannot take space to discuss the whys and wherefores of this. Those wanting to know must ask questions.

In my stables I use the finely ground, untreated rock freely on the manure daily. It acts as an absorbent of ammonia and consequently a deodorizer, an agent of healthfulness and cleanliness.

If it absorbs the gaseous ammonia that without its use would escape into the atmosphere and holds it in trust for me till I can use it in plant production, it has paid its cost.

But very much more than this, by its addition to the manure I have enriched that most valuable by-product immensely in the very element of which it was most lacking—phosphoric acid.

Busy farmers cannot take much time to make careful experiments, and to such I unhesitatingly recommend the use of this crude phosphate liberally in mixing it with manure. Then take good care of the manure and get it on the fields as soon as possible. If you have no spreader, get one.

◈

What Barn-Yard Manure Does for the Soil

Humus and bacteria are the special points in the following concise article on barn-yard manure from "Wallaces' Farmer:"

We have been so insistent on the duty of every farmer, every day in the week except Sabbath, to haul out manure as fast as it is made, that we owe it to our readers to tell them just why we insist so strenuously on this point. It is not solely because it contains all the essential elements of fertility, in proportions, however, varying according to the food which the live stock has received. It does contain all these elements, and its return to the soil is therefore necessary if we maintain this fertility, but this is not, after all, the main benefit of the manure to the soil. It is cheaper to grow clover and plow it under than it is to haul out manure, if the haul is of any great distance. The clover will furnish nitrogen. It is cheaper, if the haul is long, to buy potash and phosphorus than it is to supply it in the form of manure. Manure furnishes these essential elements, but it does a great deal more. The main value of manure does not lie in what is known as its fertilizing elements.

What else does manure do to the soil? First, it inoculates the soil with bacteria, and soil that is full of bacteria is a soil in good physical condition—a productive soil. It is not necessary to give a heavy covering of manure in order to fill the surface soil with bacteria, and herein consists the great value of a manure spreader that so far as inoculation of bacteria is concerned, the manure spreader will cover twice the number of acres that can be done under the old form of hand spreading.

Next, manure furnishes humus material, thus maintaining constantly a full supply of humus in the soil, without which the soil cannot be kept in proper physical condition, and cannot produce full crops, no matter how rich it may be in the essential elements of fertility. Land well supplied with manure will stand wet seasons and will stand dry seasons, simply because the manure puts a soil in first-class physical condition. It is quite true that this humus supply can be maintained by growing clover and plowing it under, but if manure is applied to the meadows and pastures (that is the place to apply it in nine cases out of ten, or, we might say, ninety-nine cases out of a hundred) this itself will stimulate the growth of clover and other grasses, and thus, in addition to the value of the manure for humus will largely increase the humus material that comes from tame grasses. In fact, the great secret of successful farming is to keep the manure hauled out on the pastures and meadows and spread as thinly as possible so as to cover as much of the farm as possible each year. If this is done there is no fear that with any kind of decent farming and decent management any land that ever was good will become worn out and deficient in the elements of fertility. Constant hauling out of manure is one of the essentials of successful farming under western conditions.

◈

A 10,000 Bushel Crop of Potatoes

In the "National Stockman and Farmer," Mr. Alva Agee gives an interesting account of a visit to a potato farm in Wayne County, Ohio. He says, in part:

The other day I drove out to the farm of Mr. Daniel Ramseyer, at Smithville, where over ten thousand bushels of potatoes were grown on thirty-one acres of land this season. Seven thousand bushels had been marketed, the first sales being made at fifty cents a bushel in cars at station, a quarter of a mile away, and only one car was sold as low as forty cents. Seeding of wheat interrupted the work of delivering potatoes in the latter part of September, and the remainder of the crop was stored in big ricks.

Two years ago Mr. Ramseyer planted nineteen bushels of potatoes. In the past he had been a horse feeder. Twenty-five years ago he came to the farm of 124 acres, determined to make a winning, and he laid down the rule that all the products of the farm, so far as possible, were to be fed on the farm. But most of the land appeared to be too poor to be plowed for the crops needed for feeding. Some manure helped, and the next year there was more manure, and the crops increased as the manure increased, and the manure increased as the crops increased. Cattle were used for a number of years to consume the crops, but later Mr. Ramseyer found horses better. The land gained in fertility. About eight years ago sixty more acres were added to the farm. This land had been in the hands of renters, and although it lies level and close to the village it was bought for sixty dollars an acre, being in unproductive condition. The manure from the continuous feeding went out upon these sixty acres as well as the old farm, and clover was always made a leading crop, the hay being wanted for the horses. Thus, year after year, Mr. Ramseyer has filled the soil with manure and clover, taking his profits in the gain from fattening horses and from wheat. But that planting of nineteen bushels of northern seed-potatoes two years ago—or rather the crop produced from them—sent his thoughts into a new channel. He had been filling his soil with plant food, and potatoes could convert some of it into cash at a big profit. He planted fourteen acres the next spring, and found that he had reckoned wisely. Last spring he planted thirty-one acres, and has secured a crop of ten thousand bushels. There are fifty acres in prime condition for potatoes next spring, and the owner sees no reason for failing to plant them. It is a sort of plunging that would wreck most farms, because they have not had a quarter of a century of soil-building with manure and clover, but it is only a legitimate conversion of fertility into cash at a time when markets take all we can produce.

The yield of potatoes evidences the state of soil fertility. So does the crop of 1,700 bushels of wheat from forty-two acres, and the eighty-bushel yield made by the oats this season.

Mr. Ramseyer is not troubled by fears of scab from the use of manure on the ground. The crop from his heavily manured ground is smooth. The manure went both upon corn-stubble land and upon clover sod for potatoes. Where the land had been given a heavy coat for corn, and a second heavy coat for potatoes, the yield was 350 bushels per acre. No preparation for a potato crop is better. Mr. Ramseyer says:

"Have the land rich, and then seed heavily. I want from eighteen to twenty bushels of seed on an acre. Small potatoes are not nearly as good for planting as large potatoes, but I do not select the very largest—don't want them. The rows are made only thirty inches apart, and the seed is dropped with spaces less than a foot between the pieces. I grew just as many potatoes in rows thirty inches apart as in rows thirty-four inches apart, and many more rows on an acre. I ridged the rows pretty heavily in cultivation, and sprayed six or seven times. Didn't stop when the vines filled the middles. Plenty of seed and plenty of fertility make a potato crop." This is Mr. Ramseyer's creed, and he has the potatoes.

◈

Improving Meadow-Lands

In the "New England Farmer," M. F. Ames gives his way of improving meadow-lands:

Late this fall I would go over the fields very thoroughly with a light harrow, not cutting deep, but breaking the surface roots. In the winter I would prepare a fertilizer very nearly of the following formula: 100 pounds of nitrate of soda, 400 pounds of dry tankage, 300 pounds of muriate of potash, 1,200 pounds of acid phosphate. Mix these thoroughly and there will be a fertilizer of about 2 per cent nitrogen, 8½ per cent phosphoric acid, 7½ per cent potash, well adapted to grass on a strong loam, as I think this should be to have given fair crops for two years without fertilizer.

If the soil were mucky and had a fair proportion of vegetable matter it might be well to put 100 pounds more of the potash salts, or if light and sandy 100 pounds more of tankage, to the ton, reducing the acid phosphate by the same amount.

In the spring, as early as he can go over the land, harrow again and sow about 400 pounds of this mixture to the acre. Then sow ten pounds of red-clover seed, four pounds of Alsike or crimson clover, fifteen pounds of orchard grass, ten pounds tall oat grass to the acre and brush in the whole.

◈

Training the Colt

In the "American Cultivator," David Imrie gives his method of training colts as follows:

Weaning time is a critical period in the life of a colt. Put a halter on it and tie it beside its mother at night, letting it run with her in the day-time for a few days, then wean it altogether, but do not keep it tied in the stable all of the time. Give it a box stall or yard, or better, a pasture with other colts, yearlings or two-year-olds, that it is acquainted with, and it will grow right along. Feed it well the first winter, give it the best hay you have, some corn-fodder, plenty of oats, a little bran, and some carrots, if you have them, so that it never loses its colt fat. After the pasture is good, gradually decrease the oats until it is on pasture alone. It will grow fast and go into winter quarters in fine condition. Feed them well the next winter; in fact, we always feed well.

I have heard farmers say that if you wanted a good, tough horse you should let them rough it outdoors in storms, with little or no grain. I have seen some of these colts and the only toughness I could see about them was their looks; they did look pretty tough.

I like to break these colts to harness in the winter or spring before they are three years old. Hitch them up with their mother, if she is a good, steady animal, or some other steady horse that they are acquainted with; work them lightly until they become accustomed to the work. Never work a colt until it is very tired. Some seem to think that you should tire them out the first time you hitch them up. Do not do it, you may spoil them altogether. Do not break them, but educate them, and do not try to educate them all at once, as the old Dutchman did. He had his colt broken to ride, and he wanted to get it accustomed to sights and sounds, so he told his son Hans to go behind the straw-stack and when he rode by to jump out and say "boof." So Hans went behind the straw-stack and when the old man and colt came along did as he was told. The colt gave one bound and left the old fellow on the ground. He got up, rubbed his shins and said: "Mein Gott, Hans, you make to big a 'boof!'"

Most of us are trying to do the work on our farms without enough horses; we had better have an extra horse or three-year-old colt. In this way we can change horses, and give the brood mare and three-year-old colt a rest at times, and if a horse gets a sore shoulder we can let him rest and heal it up, whereas, if we are obliged to work him all through spring work, we may have a shoulder that will always bother us.

◈

Importance of Pure Air

Regarding the best system of ventilation for stables "Hoard's Dairyman" says:

Over and over again does the dairyman recur to the question of proper ventilation of stables. Why? Because it is to-day the most important of all matters connected with the winter stabling of cattle. Men do not realize its importance. Not one farmer in a hundred ever thought hard and well an hour at a time on the question.

Look at it from this standpoint: We can live without food thirty days or more. We can live without water seven days, but we cannot live five minutes without air. Moreover, we can as readily poison ourselves with foul air as with foul food or water. Get these three things into our heads in their true proportion and we will do something at once to supply our stables with pure air. Again, we say the King system is the only one we have ever seen that will properly ventilate a stable. It costs but little, try it.

The King system of ventilation provides for taking in fresh, pure air from the outside, and removing the cold, foul air. For its successful working it requires, first, a stable or room comparatively air proof. There must be no direct openings to the outside or through the ceiling to the space above, such as hay-chutes or other openings for putting down hay and bedding, unless provided with doors or covers so that they may be closed.

The fresh air is admitted through several small air ducts, well distributed on all sides of the building, opening to the interior at or near the ceiling and on the outside three or more feet lower down. If the openings are directly through the wall at the ceiling the warm air will escape, and if lower down the fresh air will come in and be drawn out by the large ventilating shaft, and the air above will not be changed.

This ventilating shaft is, in effect, a large chimney, and should be constructed on precisely the same principles that apply in building a successful chimney—open at the base, air proof, free from obstruction or sharp bends, and extending above the highest part of the building. It may be located where it will be least in the way. It should have a capacity or cross-section of 30 square inches for each 1,000 of live weight of the animals; or say, two feet square (four square feet) for twenty cows of average size.

The aggregate capacity of the intake flues should be about the same. Apply these principles to the specific cases and one may be reasonably sure of good ventilation.

◈

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Gardening

The Results in Potatoes

SOME months ago I told of an experiment I was then making with Ohio seed potatoes of different states of preservation. About June 20th I planted one long row with tubers selected for plumpness and soundness, having only short stubby sprouts of less than an inch in length, and another long row with tubers that were already covered with long slender sprouts from an inch to six or eight inches in length, and were wilted and soft. The plump tubers grew more promptly than the others, the difference being quite marked from the very start. The row from sound seed showed greater thrift right along. There were only a fair number of stalks, usually three to five, on each plant, and these stalks were remarkably strong and stout. In the row from wilted seed there were more, but weaker stalks.

Toward the last, this row seemed to catch up in general appearances with the other. The first row had very few miss hills. Sixty feet of row gave one bushel of mostly sound, marketable tubers, an acre rate of about 240 bushels, a very fair yield in a hot season without a good rain and only a sprinkling or two between planting and digging. For the other row it took seventy-eight feet of row to give one bushel of tubers. There were more miss hills, and many plants giving a very large number of tubers, all of which were quite small and unmarketable. The yield of this row of everything in the shape of a potato was at the rate of 184½ bushels an acre, and with the undersized tubers thrown out, not over 160 bushels an acre. In this case the use of carefully preserved or selected seed had resulted in an increase of crop of at least sixty bushels an acre.

This is a point we cannot afford to ignore. The tubers from the sound seed have been put away to be again sorted in the spring for planting. I propose to cull my Ohios in this way until I shall have secured an ideal strain of this grand old sort.

TYPES OF EGGPLANT

The Late Cabbage Crop

Owing to the long spell of dry weather we had this summer, and up to along in September, our late cabbages gave promise to be an entire failure. The worms had also completely riddled the outer leaves. I put a sudden stop to their ravages by giving the plants a thorough spraying with whaleoil-soap solution. Since then we have had a number of fairly heavy rains, and each rain has helped to make the heads spread and become solid, and at this writing almost every plant of the Surehead (a strain of the Flat Dutch) has made a large and salable head. The Danish Ballhead (or Hollander) seems to be much later, and if we have good growing weather until November, I shall also have a good lot of cabbages of that variety, which is undoubtedly at the head of all late cabbages for long keeping and for winter sales.

But it is useless to attempt growing profitable crops of any kind of cabbages, early or late, on any but very rich soil. This crop fairly devours potash, and this ingredient of plant food must be supplied without stint. It is in the failure to do this that so many growers fail to raise profitable crops. Professor Watts (Pennsylvania) says in Bulletin No. 147 on Market Gardening, issued by the Department of Agriculture of that state: "There are no material differences in the soil requirements (for early and late cabbages) except that late cabbage can be grown with greater success on fairly heavy soils, rather than on those of a sandy or gravelly composition. But just as much plant food is required, and it pays to feed just as liberally as for the early crop."

Usually the late cabbage crop is heavier in bulk and weight than the early crop, and therefore requires even more plant foods than the other. But the heavier soils usually contain a larger amount of potash than the more sandy or gravelly soils, which explains why the former are better suited for cabbages.

To quote again from Professor Watts' bulletin: "The most extensive growers of Long Island apply about a ton of commercial fertilizer per acre, and we have found by our own experience that the largest profits cannot be realized without feeding a most liberal ration. There have been instances in our experience when we attempted to economize by using smaller amounts of fertilizers, but in every instance it greatly reduced profits. Early cabbage requires larger amounts of quickly available nitrogen because much of the growth is made while the soil is cool and unfavorable to nitrification. If legumes are plowed under, or manure employed, a smaller amount of nitrogen may be used than is recommended for early cabbage. The Danish Ball, or Hollander, requires a more fertile soil than the flat or domestic types. We believe that a great majority of growers of Danish Ball do not use nearly as much fertilizer as would prove profitable. . . . If accustomed to using 500 to 1,000 pounds per acre, double the amount and note the results. It is a fact that those who change from small to heavy applications seldom return to the practise of using small quantities."

I thoroughly agree with this, but would again call particular attention to the needs of this crop for potash. Muriate of potash alone may be profitably used in many cases at the rate of 500 pounds, and even more, per acre. The green-worm is very easily kept in check by a great variety of means, such as dusting with insect powder, tobacco-dust, road dust, pepper, or spraying with kerosene emulsion, tobacco tea, etc.

Mangels Going to Seed

F. M., a Kansas reader, complains that most of his mangel-wurzel plants went to seed instead of making good roots. The season was very dry, and only half of the seed came up. It seems to me very likely that the seed was old, as such has an increased tendency, especially under unfavorable conditions for vegetable growth (dry weather, etc.), to go to seed. I have often planted mangel-wurzel seed that was more than one year old. It is not advisable, however, to depend on seed many years old. Try new seed next year.

Hop Sprouts

In a German illustrated periodical ("Gartenlaube"), I find an article on hops and hop culture in which mention is made of the use of the young hop sprouts as a palatable and wholesome spring vegetable. In a general way I have no particularly high opinion of the various substitutes for our standard vegetables, and for many of the odd things so often recommended to gardeners, such as Florence Fennel, burnet, scorzonera, scolymus, strawberry blite and many others, but I remember how at one time, when we had a hop yard and no asparagus bed, we used to enjoy the young hop sprouts every spring prepared exactly as we prepare asparagus for the table. That was thirty or more years ago.

We have had a full supply of asparagus every year since, and are quite satisfied with it. I would not plant hops for the sake of getting the young sprouts as a substitute for the genuine asparagus. But if I had a hop yard, I believe I would at least try a few messes of the young and tender sprouts for a change. It does not hurt the plant to have a few, or a dozen, sprouts cut off for this purpose, as they have to be cut off anyway, each plant being usually confined to four stalks, and the dish is surely a very enjoyable and palatable one.

Blackberries and Dewberries

Apparently the blackberry is no favorite of the San José scale. Last winter, which was an open one here, with great and violent changes from extreme to extreme, did much injury to the blackberry canes, and killed the dewberry canes to the ground. But never a scale have I as yet seen on either of these plants. The blackberries bore a heavy crop, notwithstanding the winter injury; but the dewberries gave only a very few scattering berries. I shall tear the bushes out, as they do not pay for the space they occupy. They are the Austin, a very large sort from Texas. Among blackberries I like Eldorado, Ancient Briton, Snyder, and for size, Minnewaski.

Potatoes for Seed

A writer in the "American Agriculturist," says that for seed the hills should be dug by hand, and "those hills which contain only uniform tubers of the desired size and shape should be stored by themselves for seed." That is about the size of it. We cannot hope to maintain the good characteristics of a potato or a tomato or a pepper or eggplant by picking out an especially fine specimen from a miscellaneous lot of tubers or fruits. We must look to the habits of the whole plant. If that gives a large crop of uniform tubers of the desirable size and shape and quality, it is the plant we should propagate, and I would rather plant a small or ill-shaped specimen, should such happen to be among the crop of an otherwise desirable plant, than an extra-fine specimen that comes from a plant that averages poorly.

Types of Eggplant

I have always found the eggplant a most interesting, most attractive and very profitable garden crop. The plants, when in health and fruit, are quite ornamental, and the latter, when properly prepared for the table, a most delicious and palatable dish and an excellent and wholesome substitute for meat. The essential requirements for success in growing it are warm and very rich soil, warm weather, protection against blights and potato beetles by spraying with Bordeaux mixture and arsenites, and especially an early start of the plants in spring. The seed requires even more warmth for germination than tomato seed, and should be sown in a warm hotbed or greenhouse not later than March to make good plants ready to go into open ground about June 1st.

The standard varieties now in general cultivation are New York Purple (Improved) and Black Beauty, the latter also known as Cherry Black. It is questionable whether any great improvement has been made on eggplants over the New York Purple. There does not seem to be much difference, either in growth of plant or in the general appearance of the fruit or in productiveness between these two sorts, except that in my patch of the Black Beauty I find more plants of an upright growth, similar to the tree eggplant as offered by some seedsmen, than in that of the New York Purple. This old sort has usually the true bell-shape, as shown at 1. For frying, the slices are always cut square across the fruit, and, of course, in the true bell-shape, the slices or disks will vary greatly in size. To make the slices of more even size, efforts have been made to obtain in the "Jersey Belle" the general shape shown at 4. Among my Black Beauty eggplants I came across plants giving fruit of an elongated form, as shown at 2 and 3. In my opinion these forms are more desirable than the old New York Purple, as the slices are not excessively large, and are all of the same size. The spines, which were so objectionable on the foliage and fruit stems in our older eggplant varieties, have almost entirely been bred out in the New York Purple and Black Beauty.

Fruit Growing

Pedigreed Trees

BY PEDIGREED trees is probably meant trees grown from scions taken from bearing trees. As a rule no attention is paid by propagators to the bearing qualities of the trees from which the scions are cut, since it is almost impossible to get a sufficient number of scions from bearing trees, as such trees produce very little wood. Theoretically I should prefer to have trees that were grown from scions taken from bearing trees. On the other hand, as a practical proposition, I doubt if there is very much in it, and I certainly would not pay extra for them unless I knew well the parties offering the trees for sale and that they were exactly as represented.

Lime-Sulphur-and-Salt Mixture

G. N. Co., Monroe, Michigan—I have made a study of the effectiveness of the lime-sulphur-and-salt mixture in destroying scale insects, and I am thoroughly convinced that where properly used it is effective in holding the scale in check. The application of this material to trees results in not only destroying the San José scale, but in removing moss and destroying all insects that hibernate in the bark.

Mildew on Roses

M. F. P., Seattle, Washington—The mildew of which you complain as troubling your roses is a common disease, especially at the time of the year when the nights are cold and the days are warm. Under such conditions almost any of our more tender roses are liable to this trouble. Probably the best way of holding this in check is to spray the foliage with some fungicide, or dust the new growth with flowers of sulphur.

This disease does not cause any serious effect, since the rose wood is ripening up at this season of the year, and the part that is diseased is pruned off under ordinary treatment.

Method of Treating Honey-Locust Seed

J. J. McC., Proctor, Minnesota—The best method of treating honey-locust seed to insure its germinating well is to put the seeds in a tin pan and pour over them water heated so that it is quite hot. That is, not quite boiling, but too hot to hold the hand in it. Allow the water to stand over the seeds until it cools. This will cause the seeds to swell. The water should then be poured off and the swollen seeds picked out. The operation should be repeated until all the seeds are swollen. If treated in this way the seeds will be very sure to germinate when sown, while if sown without scalding they will frequently lie in the ground for a year or more without growing. The treatment should be done at the time of planting, and the best time to plant the seed is in the spring of the year after the soil works well.

Abundance and Burbank Plums

G. F. B., Burlington, Iowa—The Abundance ripens before the Burbank, and has a very distinct peach flavor. The tree is an upright grower, and the fruit ripens earlier than the Burbank. The Burbank is a spreading sprawling grower, and the fruit ripens perhaps two weeks later than the Abundance. It is also inclined to rot, especially in the South. I think the best treatment for this rot is to remove all the dry-rotted plums that may hang on the trees during winter, and then thoroughly spray the trees during the winter with Bordeaux mixture and keep the fruit well sprayed with Bordeaux mixture throughout the summer. The fine dust or powder, to which you refer as being on the rotted fruit, is spores, which aid in the spread of the disease.

Setting Apple Trees on Rough Hillsides

J. E. C., Hainesville, N. J.—In setting apple trees on rough hillsides I would advise plowing and cultivating the land, where it can be done without too much danger of getting the soil to washing badly. As a rule the best orchards are those in which the land is kept cultivated. On the other hand, orchards are grown on some high land quite successfully by digging liberal holes for the trees, and after planting spading the surface around the trees for a distance of several feet each year; then cut the grass between the trees and put it on top of this spaded surface to act as a mulch. I certainly would advise spading around the trees occasionally, and not trust entirely to mulching.

Some experiments that have been undertaken at the Ohio Experiment Station seem to show that very excellent results may be obtained from mulching orchards.

Planting Black Walnuts

G. P. F., Minneapolis, Minnesota—I would advise you to plant only black walnuts and butternuts that have been grown in Minnesota, since those from further south would probably be tender. A good way to plant them is to press them into the surface of the land with the foot in the autumn, after making a small bed for them. If you are going to plant them where they are to grow you should put about three together, and of course they should be protected from cattle.

In a large way it is customary to gather the nuts in the autumn and mix them with sand and leaves and allow them to remain in a pile on the surface of the ground until spring. They should then be planted out in drills, six inches apart, and covered two inches; but in a small way I think autumn planting is preferable. If, however, you cannot plant in autumn to advantage, it would be a good plan to mix the nuts with sand or similar material, as above, and let them remain outdoors over winter. One advantage of spring planting is, that where rodents are troublesome the nuts are not so liable to be destroyed by them as when planted in autumn.

Samuel B Green

Peaches for Everybody

There are many farmers, and many town dwellers, too, who might grow peaches enough for home consumption if they would. Of course, in some latitudes peaches are an uncertain crop, but if they bear once in five years the crop will amply repay one for the little trouble of planting, pruning, and the price of the trees. I hope that these lines may reach the small farmer, from fifty acres up to one hundred, for many of them will say, "I have no time to fool away on peaches. I have no room for them, and the crop is too uncertain. Dont talk peaches to me."

My home is in LaSalle County, about 41°, 50", and we cannot have a crop of peaches every year, but we can have, at least once in five years, a nice crop of magnificent peaches. I had a good crop of peaches last year and this year. Commencing with the Alexander in July, I have had Elbertas, Fitzgerald, and late Crawfords. This has given a family of six all the peaches they could use, and all they desired to put up for the winter. We sold a few we could not use, besides giving a good many to our neighbors. October 1st there were a few late Crawfords nine inches in circumference on the trees, skin smooth, not a blemish on them, and nearly all covered with red.

There are few farms in this country where one cannot find a corner that is producing nothing, unless a crop of weeds. A half dozen trees in such a corner, would furnish an ordinary family all the peaches they need. It is true that in this latitude the peach crop is uncertain throughout the Western states, but it pays me.

Now, you farmers, and also many who reside in the smaller towns, write to a firm of nurserymen who advertise in FARM AND FIRESIDE for a price-list (you will find that you can buy your trees for from 12 to 15 cents a tree), make out your order, enclose a draft or post-office order and send for your trees. I prefer spring planting, so I order my trees about March 1st. Plant your trees, and nature, with a little assistance, will do the rest.

I would suggest the following list, because they have done well for me. Two Greensboro, two Fitzgerald and two late Crawford, or two Greensboro, two Elberta and two Williams' Favorite, or two Triumph, two Early Crawford and two Banner.

Either of the above lists will furnish peaches from the middle of July to the first of October. The Williams' Favorite noted above, is a clingstone, all the others freestones. Plant these trees, and when they are loaded with luscious ripe fruit you will be delighted. You can pick a basket of fruit with no green, hard misshapen fruit in the bottom of the basket.

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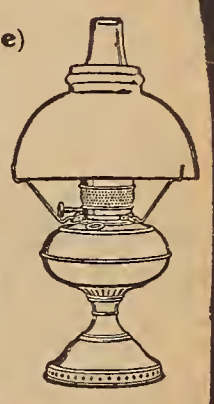

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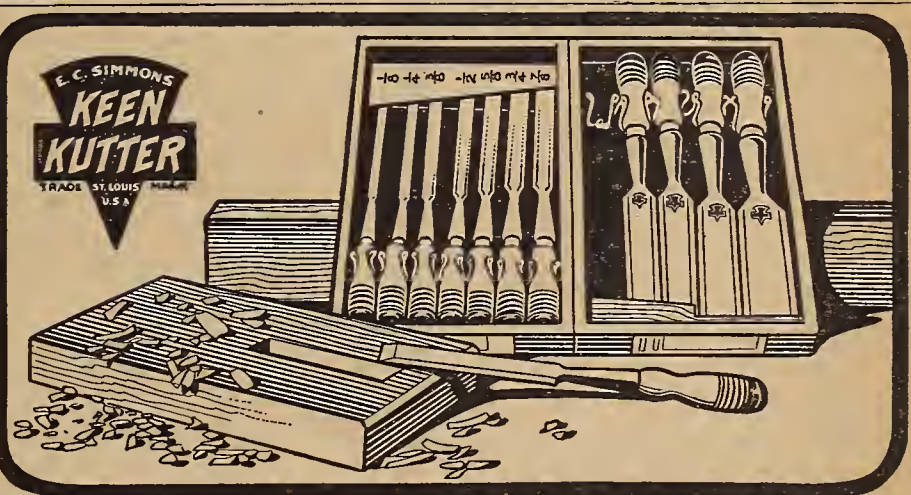

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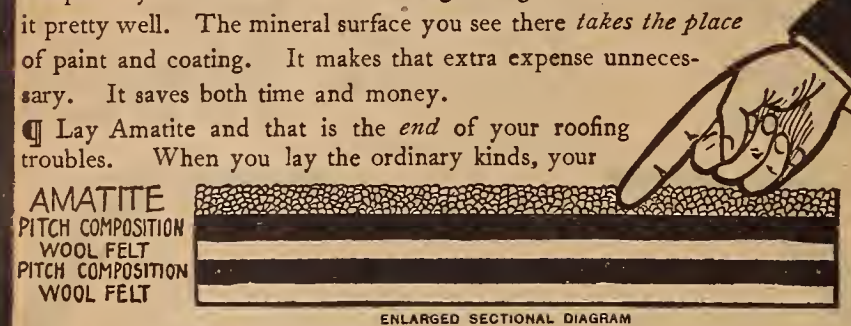

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Live Stock and Dairy

Some Dairy Problems

A FRIEND and customer of mine, who used to be a breeder of good dairy stock, much of which to my knowledge he sold at fair prices, came to me the other day and said: "I want to buy a good male to use in my herd. I have somewhat gotten out of the breeding business, but I still have some of my old cows and some of their best daughters, and I think I will try to raise my own cows at least. Of course, I never advertised much when I was breeding a surplus, and when I had anything to sell I was forced to take such prices as I could get from some neighbor or local cow dealer and now when I want to buy a few cows to replenish my herd I simply have to pay more for them than I think they are worth to look at, and they may be worth even less when it comes to feeding and milking them."

Now, I happen to know that this customer of mine, in telling me so much, and none of which he need have told me, was not by any means telling me all. I knew that while he had some most excellent foundation stock, he was often inclined to use indifferent males in his herd, so that he had no right to expect uniform herd improvement; that the young of his herd did not always receive that care and attention so necessary to keep the growing cow in the way she should go. I knew that he was surrounded by neighbors who did not believe in any cow costing over forty dollars, and declared a man was a fool to take a calf that might be vealed for eight or ten dollars and feed her two years or more into her stature of a cow when he could go to any cow sale and buy a good enough cow for thirty to forty dollars, "with a calf at her side."

Then these good neighbors of his did not believe in any special-purpose cows. Gad! they wanted cows that could stand something, they did. They didn't want any of these here puny, little Alderneys, that you had to "nuss" and take care of like a baby, that would give a calf no bigger'n our "ole Tom cat," and when you wanted to beef her, why she would eat up a whole crop of nubbins and then not show no more fat than a fence rail. No sir-ee! they wanted great big cows, they did.

Then, again, my friend did not advertise, and somehow or other in these days business men find both profit and inspiration in printer's ink judiciously used.

We observe in this incident that this man was getting back to first dairy principles. He began to learn that the men who have good cows are trying to hold onto them, and when they are sold they do not go hawking around the country at thirty to forty dollars a head. He knew that the proof of the cow was in owning and feeding and milking her; and that in cows, as well as in cow owners, "beauty is only skin deep," and a very good looker may be a poor performer.

For myself, I think the breeding dairyman is in a business of great and enduring permanence and stability. More than ever before the markets of the world are calling for good, rich, clean milk, and butter that is above suspicion. There are always liberal customers for good dairy products, as there are for good dairy cows, but we sometimes have to hunt them up.

Our little light under a bushel may be entirely overlooked by the customer who is won by the other fellow so interestingly and persistently blowing his own horn.

Dairy cows are now high; dairy products are also, and likewise very much so dairy feeds. The tides of the dairyman and breeder are no exception to the tides of other business men—they ebb and flow, and it may be that by the time my customer has grown some good cows from the sire I had the pleasure of selling him the ebb may be on in the cow tide.

It will appear to me that the men who are making good cows and making money out of them are the men who are in the business for keeps. They know they have a substantial business that no trust, no fashion, no new invention can supplant, and they win out by staying in. Yes, indeed, feeds are high. Taking wheat bran as a standard, it simply soars. Today's paper quotes it in Philadelphia territory at $21 a ton in car-loads. The best oil-meals and glutens cost over thiry dollars a ton. Why by-products from the wheat-grinding mills should be steadily going up while the raw material, wheat, and the refined product, flour, are both coming down, is beyond the opaque comprehension of the plain farmer. There are many strange tricks of trade not embraced in the plain farmer's philosophy. It appears even if we cannot understand certain facts we must accept them, and the high price of bran is a fact.

The man who under reasonable expenses is selling his milk at six or more cents a quart can use these high-priced feeds in a full ration and finds a profit. The man—yea, the men who are selling milk or butter fat at the "run of the market" will find that they must have no poor cows in their list if they put wheat bran and oil-meal very liberally into the ration.

It is a fact that many dairymen are conducting dairies under very unfavorable market conditions. Their milk or butter simply goes to market, to the storekeeper, to the milkman or to a non-competitive creamery. Gross returns are very low, and the net gains must be very low indeed; yet even this great class of dairymen finds, or seems to find, enough profit in the business that it keeps at it. This class, and it is a tremendously large one, must be saving of feeds and outlay. Better cows, better fed and tended would often help, even with low prices for products. This is the class of dairymen against which one feels like crying out a warning, when one sees how many of them are wasting time and opportunity through lack of knowledge of advanced methods of doing their work.

They tell us much concerning the great prosperity of the American farmer. I would not be accused of crying "Wolf," but the prosperity that is so remarkable in its aggregate may be in individual cases almost discouragingly small. The average farmer, the average dairyman makes money very slowly. What he accumulates is added a little at a time—a little from the cows, a little from the pigs, a little from the crops, and as little as may come in from any one source, it still may be so important in making up his individual aggregate that each small line must be kept going. His prosperity is often most correctly spelled "frugality." It is a most wise provision of Providence that in this industry, frugality and self-denial, he has no time to dream dreams of acquiring great wealth. Am I wrong in stating a few plain facts? The writers and talkers outside of our craft give us farmers enough platitudes to disgust us. It doesn't help us any for us to shut our eyes to true conditions. We are all right. We are doing right when we do the best we can, and learn the most we can. We are most nearly doing the work of the Master—we are feeding the sheep. We can't all be money changers in the temple.

W. F. McSparran.

Provide Bedding for Stock

It is not winter yet, but it is time to think of providing bedding for the stock, so they can be kept comfortable when bad weather does come. Comfort to stock pays in more ways than one. First it is humane, and there is no feed which pays a better profit on any kind of stock than comfort. We must keep all stock comfortable, but how it can be done without having a good and liberal supply of bedding is more than I can tell. Animals gain when they are lying down and are comfortable.

It would often be more comfortable to the stock and profitable to the owner to use some of the poor quality of hay for bedding, and feed more of the good hay, instead of saving it and expecting to sell a load or two in the spring at a good figure. There is no money in such business. If you are going to keep stock, keep them right or as near right as you can, and feed them the best feed you have instead of starving them all winter in order to get a few dollars for what hay you have left. We can be assured of one profit at least when we feed animals, and that is the profit of the manure, which is quite important in my opinion, By feeding well we can have a direct profit from the feeding, and have the manure extra, but this means liberal feeding and feeding with judgment. Aim to have good feed and you will find a good profit in using the poor and inferior hay for bedding. Begin right now to think what you will use for bedding.

On every farm there is material which would be good to use for this purpose.

Live Stock and Dairy

Generally you will get more good out of it by letting the stock sleep on it. The best material for bedding is thrashed clover. This is good for nothing else. Stock will not eat it, and it would do them no good if they did. Stock can get no good out of the hard and dry stems, yet, being short and porous, it is just the thing for manure, as it will absorb the liquid part and make the manure easy to handle. This is the ideal material for bedding, and is a good thing for the farmer to have. More than for the purpose of bedding it is good for the farmer to raise clover seed, especially for his own use.

Straw will be about the next material that the farmer will probably use for bedding, and it makes very good bedding. The spoiled hay on top of the stack is also very good.

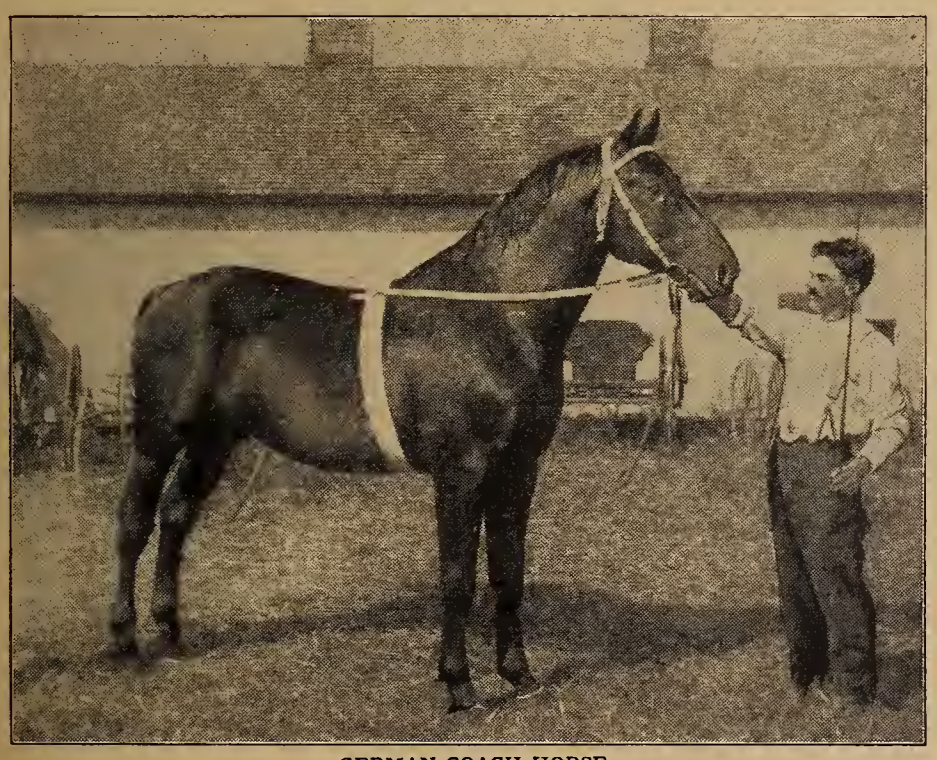
Missouri. E. J. WATERSTRIPE.

A Principle of Breeding

Many sheep breeders have observed that the proportion of twin lambs is larger some years than it is in other years. This condition is regarded by many as nothing more than an accidental circumstance, resulting from no active cause, and therefore beyond the power of their determination. To some extent this is true, but certain observations have been made that seem to indicate the operation of some positive and potent cause for these cases of extraordinary fecundity.

To those who have made a study of animal husbandry in its biological phases, the principle that seems to account for this unusual prolificacy is no longer regarded as a theory; nor is it confined to sheep alone, but may be observed throughout the animal kingdom. To be sure, it is more apparent in a flock of sheep; but this is because impregnation and parturition, respectively, have occurred throughout the whole flock in a rather limited period, and consequently the conditions that affect one member will likely affect all the others to a similar degree.

The writer does not assume to say that



GERMAN COACH HORSE

a large proportion of twin lambs is always to be desired; but he may assert that it is desirable on the part of the breeder to be able intelligently to exercise, in a greater or less degree, any influences that tend to determine fecundity one way or the other. The well-established practise of breeding from prepotent and fruitful sires and dams is recognized, of course; no expedient, such as the one proposed in this article, can supplant the far-reaching and permanent results of skilful breeding from prolific parents. But this broad principle and practise of breeding from lines of productive stock would itself be rendered more effective if the apparently spasmodic performances of occasional years might be rendered certain by a discovery of their causes. But there are so many other vital considerations in skilful breeding, besides the mere multiplication of offspring, that fecundity must often be totally ignored in seeking improvement in other points of equal importance. Nor, let it be repeated, is multiplicity of offspring unconditionally to be desired, but expedients for its determination in desired cases should, as far as possible, be known.

For a flock of sheep observed by the writer during several successive years, the most remarkable production of twins followed a mating made upon most luxuriant rape pasture. The ewes were in a fine state of health, fat, and taking on more flesh when impregnation took place. Last spring the proportion of twins dropped generally throughout central Ohio was larger than the previous season. To account for this it seems reasonable to go back to the previous summer and fall in each case. The summer season preceding the dropping of a large proportion of twins was cooler and more moist, promoting the greater comfort of the sheep and the maintenance of good pasture till and including the mating season. Dry, hot seasons lower the vitality of the ewe and dry up the pastures so as to bring all sheep to the mating season in poor flesh and relatively depleted vitality. To this, it seems, may be due the lower degree of prolificacy.

Nature, by the operation of an intricate law, seems to take account of the physical vigor of the dam and of her prospective food supply, and to determine the task that may be imposed upon her. The high condition of bodily vigor and flesh, if antagonized by no unusually potent tendencies to lack of prolificacy, result in the production of additional ova, and a corresponding production of twins or even triplets. Of course, if acting in concurrence with special tendencies to prolificacy the results referred to will be the more likely to occur.

In further confirmation of this principle may be observed the greater prolificacy of the mutton breeds, that have been developed under conditions more favorable to flesh production than have the Merinos. The more recently developed strains of Merinos have also acquired at the same time a greater fecundity than was known among their progenitors that gleaned a scanty subsistence from their native country, Spain.

On the same principle may be accounted for those extraordinary performances of small flocks kept in fine condition, the pride of some small farmer.

The principle is not a new one, but probably has not been intelligently employed to the extent that it should have been in animal breeding.

Ohio. GEO. P. WILLIAMS.

Bringing Up Cows

Cows, like men, are good or bad, oftentimes because of their environment, bringing up and education. We look for and expect men to be good if brought up in good and religious families and communities. I have often heard it said, "give me the first six years of a child's life, and I will tell you with a great deal of certainty what the future of that child's life will be." So I believe that the conditions under which an animal is reared determines, in a large measure, her future usefulness or uselessness. As with men, the parentage is of great value, and we look for and have good reasons to expect cows to be better cows from a long line of productive ancestry; so this, then is the stepping-stone in the development of a dairy cow.—Scribner.

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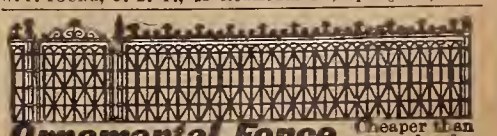

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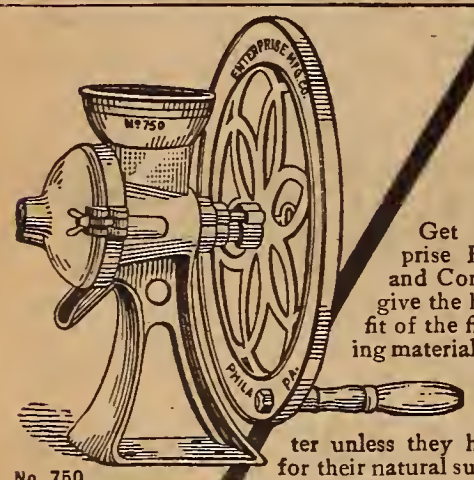

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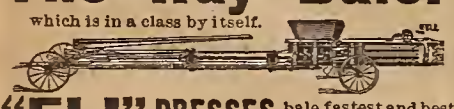

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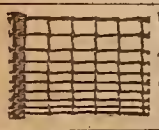

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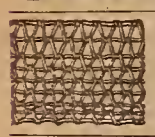

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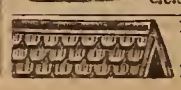

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Poultry Raising

Selling the Extras

IT MAY not pay to wait until winter to get higher prices, as there is an expenditure to be met in keeping birds which may more than offset any gain in prices. It is a waste of time, labor and food to keep cockerels, as the older they become the lower their value, "old roosters" bringing the minimum prices. As all cockerels at this season are classed as "roosters," especially if they have fully developed combs, they are consequently lessening in value every day.

Pullets that do not begin to lay at the proper age expected of them, and which go into the winter without keeping up with the pullets that begin to lay before cold weather, should be disposed of. It does not pay to keep pullets from now until March or April, in anticipation of what they may do in the spring. Nearly one half of the year will intervene between fall and early spring, and any extra stock that does not give promise of producing eggs during that period should be made more serviceable by gracing the market stalls as choice dressed poultry.

Controlling Broody Hens

If it is desirable to prevent broody hens from incubating at this season, it can be done with but little difficulty. Simply provide a coop, raised a few inches from the floor, the coop to have a bottom made of slats, so as to allow of free circulation of air under the hen. A broody hen's efforts are directed to warming her eggs. She does not relish cold draughts underneath her body, and soon leaves the coop in disgust. This method is humane and efficacious. In other words the hen must feel the accumulating warmth of the nest or coop in order to remain at her work.

Leaves and Dry Dirt

Lay in a supply of leaves and dry dirt before the cold season opens and the ground is frozen. The fowls will have to remain during a large portion of their time in the poultry-house in the winter, and will require materials for the dust bath. For this purpose there is nothing superior to coal-ashes, but they must be sifted twice, first to remove the coarse materials, and next through a fine sieve, in order that only the finer portions may be used. A dust bath should be composed of dust (not coarse dirt), in order that the hens may throw it well into their feathers. Dry dirt is always plentiful, and should be placed under shelter, especially if there is an insufficient supply of ashes. Wood-ashes should not be used for the dust bath, as they contain potash and irritate the skin. Leaves are the best of all materials for the floor, as they not only induce the hens to scratch, but to a certain extent prevent draughts of air on the floor.

Bones and Lime

Nearly all kinds of food contain lime. Oyster-shells, clam-shells, marble, limestone and chalk are of the same composition (carbonate of lime), bones being phosphate of lime. Fowls utilize oyster-shells and other forms of lime largely as grit, while fresh bone from the butcher is an excellent food, providing both lime and nitrogen. As green bone cannot be ground, owing to its tough condition, it must be cut with a bone-cutter. When bones are dry they may then be ground, and can be used at all seasons.

Ducks and Breeds

The Pekins are considered the best of the breeds of ducks for market, as they make rapid growth, but they are very excitable, and are also easily thrown into a panic on the approach of a dog or other animal, frequently making disturbing noises at night. The Aylesbury is a favorite breed in England, being somewhat similar to the Pekin in color, and is preferred by some on account of its quiet disposition. It also ranks high as an egg-producer. Those who have made experiments claim that the Cayuga is the best of all for quality of flesh and attractiveness of carcass, but as it is black in plumage the pin feathers show prominently when the fowl is dressed for market. This is a drawback, as more labor is required to pick them. If a breed of good layers is desired the India Runners perhaps excel all others, though they are smaller than some breeds. The well-known Rouen is a hardy breed, and much admired, but is not so well established as formerly, the Pekin taking the lead because of being more suitable on farms where no ponds are provided. The Muscovy is the largest of the breeds of ducks, but it is doubtful if it is really a member of the duck family, as it has certain peculiar characteristics which place it in a different class.

Poultry Nuisances

Every flock should have its quarters and allotted space during the winter. One of the most unpleasant situations is that of a large flock of fowls running at large, especially in the house-yard, which is rendered exceedingly filthy by the droppings. These are also carried into the dwelling-house on the feet of individuals, thus inviting disease, even the drinking water of the well being contaminated. All classes of poultry should be kept out of the barns and stables, as they sometimes roost on troughs, or over the animals, their droppings causing much annoyance. It may truly be claimed that there is no greater nuisance on a farm than hens that have unrestricted liberty, and which seem to prefer the house porch and yards because of the number of crumbs from the table that may be thrown out, as well as the comforts usually found near the dwelling.

Root-Slicers

Formerly the difficulty in feeding turnips, carrots and beets in the raw state to poultry was due to the lack of some cheap appliance for reducing the materials to slices, or to a condition permitting the hens to easily pick the food to pieces. Fortunately, there are now root cutters or slicers, which cut all kinds of roots into slices so thin that the fowls can eat them as easily as when eating soft food, while the labor of cutting the roots into slices permits of reducing a large supply in a few minutes. The use of root-cutters favors a greater variety of food by the employment of such cheap materials as roots, which are grown on nearly all farms, and which promote the thrift and comfort of the fowls.

Fatten the Turkeys

Thanksgiving and Christmas will soon arrive, and there is but little time left for getting the turkeys in prime condition. Both the size and the future price should be considered. It is not too soon to begin forcing them, and as turkeys will probably be in demand this year, with the supply not up to the average, those who are so fortunate as to have large flocks will find that turkeys are one of the most profitable "crops" on the farm.

Eggs for Hatching

The most important point in hatching chicks, whether with the aid of hens or incubators, is to select the eggs to the best advantage. The beginning should be by close observation of the parent stock. Use eggs from the hardiest birds of the flock only, so as to endeavor to secure chicks that will be strong and free from disease, selecting next from the most prolific hens, if young pullets are to be hatched; but hardiness and vigor should come first of all other qualifications. The eggs should be of uniform shape and size. Eggs that are almost round, being very full in the middle, should not be used, as such eggs are usually from hens in fat condition. Small eggs, pointed eggs, rough-shell eggs, and thin-shell eggs, should also be avoided. Be careful to select eggs from known hens, if it can be done, and have them as closely alike in shape as possible. The sex of the future chick cannot be distinguished by examination of the eggs. Round eggs, pointed eggs, and other so-called indications, have been tested hundreds of times, not only by experimenters, but also by poultrymen and farmers, the result being that nothing is known in advance of hatching, so far as the sex is concerned. Mating birds of different ages has also been a subject for experiment in controlling the sex, but no satisfactory results have been obtained. Eggs for hatching should be kept on racks in a cool place, and turned half round three times a week until used under the hens. They should hatch even if kept a month.

P. H. Jacobs.

The Grange

The Executive Committee of the National Grange

CONCEIVE a strong organization, nation wide, the dominating power in some sections, weak in others, yet the recognized spokesman for millions of farmers, enrolling a membership of more than a million souls, and you will realize the duty, opportunity and responsibility resting on the executive committee of the National Grange. Probably no organization is intrusted with such power or has used it more wisely. Quiet, thorough, settling its differences of opinion within instead of without, without haste, without rest, pressing forward on a definite program for the uplift of the farmer and the betterment of mankind. the grange has won a place as one of the great factors in history. Its leaders have been shrewd men of judgment and determination, who, while working for the farmer first, have commanded the respect of the world for their broad humanitarianism. In the irrepressible conflict which is world wide, the grange will play an important part. Its executive committee are men strong in their own states, and experienced leaders.

Hon. E. B. Norris, for many years chairman of the executive committee, Master of New York State Grange, whose membership he has brought up to above 82,000, is a strong man in a responsible position.

Governor C. J. Bell, of Vermont, whose iron will and unflinching courage have brought victory in many a hard fight, governor of his state, Master of Vermont State Grange, experienced, careful, shrewd, is a leader to be trusted.

Hon. F. A. Derthick, Master of Ohio State Grange, father of pure-food legislation in Ohio, who wrote that part of the Ohio law which has been incorporated into the statutes of nearly every state, is serving his second term as member of the committee. His gallant fights for pure food-stuffs and more equitable distribution of the burdens of taxation are fresh in the minds of the people. The farmers are urging his candidacy for governor.

Ex-governor N. J. Bachelder, for many years Master of New Hampshire State Grange, by virtue of his office as Master of the National Grange, is ex-officio member of the executive committee. Few men are better known. He has spoken in nearly every state in the Union. Under his leadership the grange is making rapid strides in membership and solidarity of effort.

These are the men who have the interests of the grange in charge. Strong at home and abroad, and experienced, they will bring yet more good to the farmers. It must be remembered that the things for which the people are today clamoring have been discussed in every grange hall in the land and worked for by the grange. Among them are pure food, railway-rate regulations, the Isthmian Canal, regulation of monopolies, extension of markets for farm produce, national and state aid to highways, more equitable distribution of taxation burdens, federal, state and county salary laws, parcels-post, telephone and telegraph in the mail service, election of senators by direct vote, and postal savings banks. The grange is stronger than ever before; its leaders are trustworthy. In the great struggle now going on, the grange will play a conspicuous and honorable part.

EX-GOVERNOR N. J. BACHELDER, NEW HAMPSHIRE, Master National Grange. HON. E. B. NORRIS, NEW YORK, Chairman National Executive Committee
GOVERNOR C. J. BELL, VERMONT, Master Vermont State Grange. HON. F. A. DERTHICK, OHIO, Master Ohio State Grange.

EXECUTIVE BOARD OF THE NATIONAL GRANGE

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Home Reading-Course

There is no way in which the intellectual status of a people can be so accurately measured as by the way they receive any proposal for betterment. Measured by this standard there is certainly room for gratification. The Home Reading-Course of the grange has met with such hearty and instantaneous approval that it brings encouragement. The opportunity the grange offers farmers to secure a course in agriculture and domestic science, in connection with one of the foremost universities of the land, has elicited many inquiries from all over the country. This morning's mail is a fair sample. There are three inquiries from Illinois, two from Michigan, one from Washington, one from Delaware, two from Canada, and many from Ohio. Other mails are alike prolific with inquiries. Farmer's clubs, women's clubs, granges, intelligent people from all sections of the United States write concerning it.

Classes write that it is the greatest step yet taken by the grange, and signify a desire to take the entire course. Up to October 5th sixty-four classes were enrolled, while others are in process of organization. Surely no organization has ever offered a like opportunity for a broad and comprehensive development of the individual. Each class writes of the intensely practical character of the work. One year ago it was an experiment to find whether the plan that seemed so good and promising would really work in practise. It has worked, and each class is a center of influence from which others can draw inspiration. Let the good work go on till every grange in the country has a class in home-reading in agriculture and domestic science, and till every community has the immense advantage a grange brings.

◈

Collections of Natural Objects

Some granges have added to the interest of their work the collection of samples of vegetable, floral and animal life of their communities. In each grange there are those who have a special interest in some phase of the natural life about them. Let that person have charge of the collection in which he is specially interested. Then buy books that deal with this subject. It is preposterous to think that anyone can get large results from individual study alone, unless he gives a lifetime to it.

Audubon gave a lifetime to the study of birds, and brought to his aid all that others had known. At his death his great regret was that he knew so little. Like Moses, who was permitted only to look over into the Holy Land, so are those who know the most of any subject grieved because they reach only the summit of Mount Pisgah and cannot cross Jordan. How presumptuous then the conceit of those who think they know what is worth knowing through only a few hours of study. Investigate on your own account, and then use all that others have revealed. God is not so lavish of talents that he sends them to be ignored. Every community should bow in adoration before superior gifts, and aid and encourage the possessor.

The grange is for mutual good. If one of your number is possessed of fine talents use them to the good of your community. A talent cannot be hidden under a bushel. Aid and encourage every mind that will inquire into God's handiwork.

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The Observatory

"Virtue and health and all good and God are a harmony."—Pythagoras.

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"The people" boast of their intelligence and the power they exercise in the ballot. How placid must be their contemplation of defaulting public officials, graft in every county, in every state, and the hypnotic power of money over men in the highest departments of every branch of our government. Are the voters powerful or powerless?

Mary E. Lee

Around the Fireside

The Children's Hour

Between the dark and the daylight,
When the night is beginning to lower,
Comes a pause in the day's occupation,
That is known as the children's hour.

IS THERE a "children's hour" in your home? There should be one in every home, an hour when the bonds of family life and affection are strengthened; an hour when father and mother belong to the children. Of course, all fathers and mothers belong, or should belong, to their children every hour of the day, but it is a good thing to set apart an hour that shall be peculiarly their own, and the hour "between the dark and the daylight" is a good one to devote exclusively to the children. No doubt there will be days when the unexpected and uncontrollable current of events will make it impossible to observe this hour, but this may not occur very often. The children should always be at home "when the night is beginning to lower," and there is sure to be a restful pause in the "day's occupation" then. Even the mother may find a little time then, although it is true that

A man's work is from sun to sun,
But a woman's work is never done.

There is always something for the mother to do, but why not include the "children's hour" among the regular occupations of the day, and make it as much of a duty as any other part of the care of the household? Is there any part of a mother's duty more imperative than that of helping her children grow into pure, strong womanhood and manhood? And can any man or woman have a sweeter, happier memory than that of a joyous childhood? A happy, wholesome, well-guarded childhood is often the foundation stone upon which a noble manhood or womanhood is built, and more than one man has been kept from "going wrong" by the undying influence of the "children's hour" in the home of his infancy and youth.

I spent two days in a home last winter in which there was a "children's hour." It came immediately after the evening meal. There were four children in the home, and a saintly old grandmother who was given the place of honor that grandmothers do not always receive in the home. From half-past six to half-past seven was given up entirely to the children. A story was read or a book of poems, and attention was called to the particularly fine passages in the poems. The oldest boy was a born nature lover, and there was not a day that he did not have something to tell about some new discovery he had made in his reading or observation. One of the little girls was very fond of committing poetry to memory, and the evening I was there she repeated Longfellow's "Children's Hour."

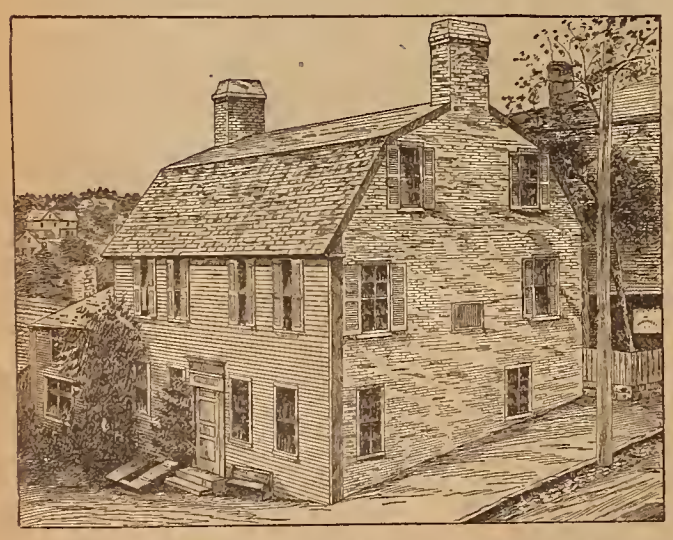
The hour closed with a chapter from the Bible and the "word of prayer" that brings peace to many a household and creates the undying spark of divine fire in many a young heart. Do you think that the children of that home will ever forget the influences of that "children's hour?" I do not. It will be an hour of hallowed memory to them in the years to come. They may recall it with tear-dimmed eyes in the days of their own womanhood and manhood, when father and mother have gone on into the Great Beyond, but because of that memory they may establish a "children's hour" in their own homes, and every such hour adds something to the growing good of the world. J. L. H.

—HELEN◈MORTIMER—

Only American Settlement In the Philippines

DAVAO is said to be the first and only American settlement in the Philippines. According to the "Far Eastern Review," published in Manila, this district is the land of promise for the white settler.

It's broad, fertile valleys have never known the spade or the hoe, nor its magnificent stretches of forest the ax of civilized man. Hitherto its broad, swift-flowing rivers have only served as waterways for the "cascoes"



There are few places in America hallowed with more sacred associations than the site of the first meeting-place, at Plymouth, Mass.

of a handful of wild and timid people who live in the mountain fastnesses, and only venture into the lowlands to fish and hunt. This magnificent district, with its 300,000 acres of choice agricultural land, its unlimited forest wealth, its grand stretches of cattle ranges, its undeveloped water power and its unexplored mineral resources, is one of nature's grandest storehouses. It needs only American capital and American pioneers to make it one of the richest sections of greater America.

Among the first of American volunteer soldiers sent there in December, 1899, was a descendant of the men who had carved the State of Kentucky out of the wilderness a century before. He had the energy to attack the jungles and savages of Davao and make himself a home. Others followed his example, and success has crowned their efforts. To-day there are thirty-five American plantations scattered along the Gulf of Davao, and threescore of hardy Americans are carrying civilization into the mountain fastnesses of the savage tribes of Mindanao, teaching these simple people the use of the hoe and ax and the value of industry. Thousands of these mountain people are now living in good houses, eating good food and adopting civilized dress. They are laying aside their spears and kris, engaging in agriculture, and in some cases sending their children to school.

—HELEN◈MORTIMER—

World's Large Bedsteads

THIS is a day of individual beds. People generally find most satisfactory rest sleeping alone. The style of bedsteads takes on a change periodically, like most pieces of architecture and furniture. To the seeker of old-style furniture the great, large four-poster of Colonial days is alluring. Many are the modern bedrooms that are fitted with large four-posters,

General Israel Putnam, one of the commanding officers at the Battle of Bunker Hill, and who served with distinction in the French and Indian War, was born in this house, at Danvers, Mass., January 7, 1718.

with their great canopies and steps standing alongside, with accommodation for four or five persons. Large as are these old relics, they appear small beside that used by Sarah Bernhardt. Her bed is said to be the largest in the world, measuring fifteen feet broad. When the fascinating owner is indisposed, she receives her intimate friends as she reposes on her couch, appearing, as one writer puts it, "like a red-plumaged bird floating on a sea of white satin."

The great bed of Ware, which was formerly at the Saracen's Head Inn, at Ware, but is now at Rye House, in Hertfordshire, is one of the curiosities of England. It measures twelve feet square, and is capable of accommodating from twenty to twenty-four persons. It is of carved oak, and has the date 1463 painted on the back.

The biggest bed mentioned in the Bible was that of Og, King of Bashan. It measured eighty-four square feet in area.

—HELEN◈MORTIMER—

Bogus Elk Teeth

THE foxy Sioux Indians in the Black Hills have been doing a big business the past season in working off artificial elk teeth upon unsuspecting visitors.

The Indians take small pieces of bone, polish them and fashion them into the shape of the real elk tooth. A squaw or a buck will dangle one of these at the end of a string necklace and mingling with a crowd of tourists will easily find a purchaser. They usually get $5 for one of the imitations, which cannot easily be told from the genuine. They carry the fraud to the point even of browning the end of the tooth to indicate that it is of considerable age.

Most of the real elk teeth now in the market came from the graves of dead Indians. From the grave of a Sioux chief at Pine Ridge, S. D., 626 teeth were taken. This chief, according to legend, was one of the greatest hunters of his time. Many of the teeth were beautifully colored from the gay shades of the Indian blanket in which the chief had been buried.

E. R. Pelz, a wealthy manufacturer of San Francisco, is reputed to have the largest collection of teeth. He is said to have more than 12,000 pairs, the result of nine years of work. He says that all of them were obtained in the Northwest from Indians who dug them from graves for him. Only the two eye-teeth of the animal are available as ornaments. These are usually perfect and well grown, while the others are deformed and ugly. An Indian, even in these days, will seldom sell the tooth of any elk he has himself killed. They have no compunctions, however, about opening the graves of the dead for them.

—HELEN◈MORTIMER—

An Old-Time Rural Doctor

A PARTY of men were discussing the passing of the old-time country doctor before the advance of modern science, says the New York "Sun," and one of them told some stories of a practitioner of this type who was the terror of his boyhood days.

"He was a curious old autocrat, with curative methods all his own," said the gentleman. "I remember once a boy chum of mine became afflicted with a large swelling or abscess in his throat, which was growing rapidly and threatening to make breathing impossible.

"Dr. X—— was called in. After examining the patient, he turned to the mother with the command to bring him a red-hot poker. As he was never questioned or disobeyed, the woman hastened to heat one in the kitchen fire.

"When she brought it to the sick-room the doctor grabbed it and advanced to the bedside with the gleaming point leveled at the boy's head.

"'Open your mouth, sir,' he commanded.

"The boy did open his mouth to emit a terrified shriek—which broke the abscess and saved his life.

"I have said that Dr. X—— was never disobeyed, but I recollect now one occasion on which a family attempted to set his orders at defiance. You see, he was really more intelligent than the run of way-out country doctors of those days. He went to Holland for a year of study when he was young, and brought back some advanced ideas, one of which was the efficacy of fresh air for patients.

"You know how tight country people close the windows of a sick-room. On the occasion in question the patient was down with fever. Entering the room, Dr. X—— raised both windows, ordering that they be left so.

"The women who were nursing made no objection at the time, but no sooner had the doctor departed than they hastened to close the windows. Some distance away Dr. X—— happened to look around and beheld what they had done.

"He turned his horse, drove back to the house, entered the front door, neither knocking nor ringing, mounted the stairs, walked into the sick-room, lifted the thick-knobbed cane which he always carried, and deliberately smashed one pane of glass after another, until all were demolished. Then, without a word, or so much as a look to right or left, he strode from the room and drove away.

"The patient recovered."

—HELEN◈MORTIMER—

He Preached in Armor

UNCONVENTIONAL ways in the pulpit have become strikingly common. An English preacher declares one must adopt unconventionality in order to reach the people in religion. Recently this individual appeared on the stage of the Crown Theater, at Peckham, England, arrayed in the full panoply of a knight-errant of the time of the Crusades, surcoat of chain mail, hauberk, greaves, armored gauntlets, sword and helmet, and preached from Ephesians vi:2: "Put on the whole armor of God that ye may be able to stand against the wiles of the devil."

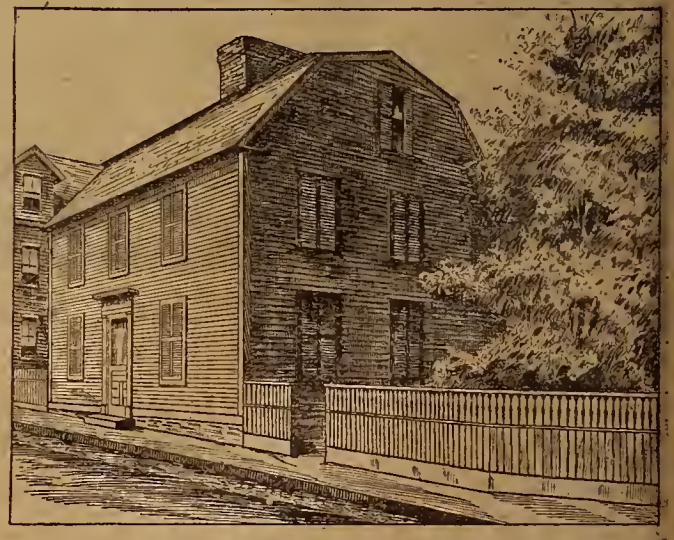
—HELEN◈MORTIMER—

Search for Kruger's Gold

SINCE the late Boer war a new phase of treasure-hunting has been in vogue. Someone started a rumor that ere his departure from the Transvaal the late president had a quantity of bar gold, variously estimated at a value ranging from one to several millions, conveyed up country and buried. According to "Chamber's Journal," the story received so much credence that the British Government at Pretoria has provided special permits and police assistance to various persons who profess to be able to guide a search-party to the hiding-place.

The degree of gullibility that even intelligent and educated men can attain when excited by treasure mania was amusingly illustrated by a well-known instance. A young Boer from the district supposed to contain the treasure called upon a doctor near Johannesburg and told a strange story. He said that one night while riding to the farm of a relative he saw lights in a wooded kloof or gorge, and reconnoitering cautiously he saw a party of men removing boxes from a wagon and burying them.

Carefully noting the spot he got away unobserved and returned next day, when he unearthed a box, which on



In a literary way Nathaniel Hawthorne was probably America's rarest genius. He was born in this house, since rebuilt, in 1804, at Salem, Mass.

being broken open he found to contain bars of gold and quantities of Kruger sovereigns minted on one side only. In confirmation of the story he produced three disks of gold which appeared to have been struck on one side with an imperfect die.

His object in calling on the doctor was to borrow fifty pounds in order to procure a wagon and oxen to remove the treasure. He was asked why he did not bring away the portable coin and thus make himself independent of outside financial aid. His explanation was ingenuous. He feared to bring more, lest he might be found with them upon him!

It is estimated that more than ten thousand pounds have been expended by the various search-parties that have undertaken the search for the Kruger millions.

My Brother Bill

BY EARL HUGHES

Brother Bill was a feller so skeered of mistakes
That he didn't do nothin' at all.
He criticized others for makin' small breaks,
But he didn't do nothin' at all.

He'd stand by the hour with his hand on his heart
An' talk about taxes, religion or art,
An' we all said that Bill was uncommonly smart,
But he didn't do nothin' at all.

Us boys went ahead an' worked with a will,
But he didn't do nothin' at all.
An' some of them turned up their noses at Bill
'Cause he didn't do nothin' at all.

But Bill is the pride of the fam'ly to-day,
They put him in Congress well out o' the way,
An' he's takin' life easy drawin' his pay,
An' he doesn't do nothin' at all.

—HELEN◇MORTIMER—

The Death of the Flowers

The melancholy days have come, the saddest of the year,
Of wailing winds, and naked woods, and meadows brown and sere.
Heaped in the hollows of the grove, the autumn leaves lie dead;
They rustle to the eddying gust, and to the rabbit's tread.
The robin and the wren are flown, and from the shrubs the jay,
And from the wood-top calls the crow through all the gloomy day.

Where are the flowers, the fair young flowers, that lately sprang and stood
In brighter light and softer airs, a beauteous sisterhood?
Alas! they all are in their graves; the gentle race of flowers
Are lying in their lowly beds with the fair and good of ours.
The rain is falling where they lie, but the cold November rain
Calls not from out the gloomy earth the lovely ones again.

The wind-flower and the violet, they perished long ago,
And the brier-rose and the orchis died amid the summer glow;
But on the hill the golden-rod, and the aster in the wood,
And the yellow sunflower by the brook, in autumn beauty stood,
Till fell the frost from the clear old heaven, as falls the plague on men,
And the brightness of their smile was gone from upland, glade, and glen.

And now, when comes the calm, mild day, as still such days will come,
To call the squirrel and the bee from out their winter home;
When the sound of dropping nuts is heard, though all the trees are still,
And twinkle in the smoky light the waters of the rill,
The south wind searches for the flowers whose fragrance late he bore,
And sighs to find them in the wood and by the stream no more.

And then I think of one who in her youthful beauty died,
The fair, meek blossom that grew up and faded by my side.
In the cold, moist earth we laid her when the forest cast the leaf,
And we wept that one so lovely should have a life so brief;
Yet not unmeet it was that one, like that young friend of ours,
So gentle and so beautiful, should perish with the flowers.

—William Cullen Bryant.

—HELEN◇MORTIMER—

Lookin' Out

Life's a mighty risky thing these busy, dizzy days,
You've got to keep a-watchin' in a dozen different ways;
Lookin' out fur autos that comes hustlin' down the road,
An' wonderin' if they're goin' to run you down, or jest explode;
Lookin' out fur engines when you drive across the track—
There doesn't seem a minute when you aren't on the rack;
Lookin' out fur sunstroke when the summer days unfold,
An' when the winter comes a-lookin' out fur ketchin' cold.

Lookin' out fur prices when you've got some crops to sell;
Lookin' out fur bunco men that knows yer folks so well;
Lookin' out fur germs that comes a-flyin' through the air
An' never leaves you any chance of restin' anywhere!
Lookin' out fur burglars when you shut the house at night;
It re'ly seems existence isn't regulated right.
I'd like to be more cheerful, but I can't see what about;
It seems like there is nothin' to this life but lookin' out!

—Washington Star.

—HELEN◇MORTIMER—

See that your subscription is paid up so that you will be sure to get the big November 15th issue, full-page picture in many colors and special fiction and feature supplement, to contain the opening chapters of "The Strange Adventures of Helen Mortimer."

AUTUMN

Photo by A. J. Swanson

Let Us Send You On Trial This Two-Horn

DUPLEX

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Christmas Gift

Direct from our Factory to any Address in U. S.
FREIGHT PREPAID

ORDER EARLY.

Each horn is 30 inches long with a 17 inch bell.

An Entirely New Principle in Phonographs

—**Two** vibrating diaphragms to reproduce the sound.
—**Two** horns to amplify and multiply all the sound from **both** sides of **both** diaphragms.
—No tension spring and no swing arm to cause harsh, discordant mechanical sounds.
—Conseqnently, the Duplex prodnces a sweeter tone and greater volume of mnsic than any other phonograph and is absolutely free from all metallic sounds.

Size of cabinet, 18 inches by 14 by 10 inches high.

Double Volume of Sound.

THE **Duplex** is the first and the only phonograph to collect the vibrations and get **all** the sound from **both** sides of the diaphragm.
Because the reproducer or sonnd hox of the Duplex **has two** vibrating diaphragms and **two** horns (as yon see) to amplify the sound from **both** sides of **both** diaphragms.
The **Duplex**, therefore, gives you **all** the music produced—with any other you lose one-half.
Compare the volume of sound produced hy it with the volume of **any** other—no matter what its price—and jndge for yourself.

Purer, Sweeter Tone.

BUT that is not all, by any means.
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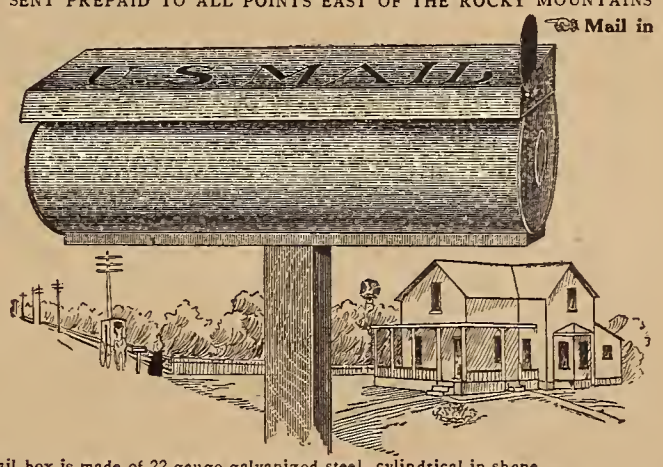

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SPRINGFIELD, OHIO

The Making Over of the Howards

By Hope Daring

CHAPTER VIII. [CONTINUED]

"Because I have let so many years go by unimproved, is no excuse for my making a failure of both the present and the future," she would say to herself.

The season had been a fairly prosperous one for the Howards. They had done little more than to make the farm meet their expenses, but many improvements had been begun and plans laid for another year.

They had made some mistakes. About farming the three women and Bert all had much yet to learn. Bert went to Elsie for all his orders, and it was one of her weaknesses that she did not like to ask advice, but decided things according to her inclination rather than according to her knowledge.

The long winter evenings were spent by Elsie over her books. She often felt the need of help; in her heart she regretted that she had so proudly refused Jerome Dare's offered assistance. The offer had never been mentioned by her, not even to her sisters.

Mary not only gave much time to piano practise, but was taking lessons of Lenox's best teacher. The music, her share of church-work—in which she was greatly interested—and the affairs of the household filled Mary Howard's days.

The sisters often visited Hattie, who was making a feeble effort to accustom herself to the cares she had so long delegated to others. Tom blustered and put on many good-natured but silly airs which deceived no one. The Howards knew that the new business was not prospering.

"Why not sell your livery barn and buy a farm?" Elsie said to Tom one day when she was taking dinner with her sister. "You will be sure of a living, and there is money to be made in farming, if one only plans right."

"Is there? You surprise me. But of course I don't know anything about it. Some folks would not have made so much this year, if some other folks hadn't toiled and slaved for 'em."

Elsie said no more. She had driven to Lenox alone, and on her way home she pondered over her interview with Tom.

"Was it unjust for me to decide that he must move away and leave us free?" she asked herself. "No, I am sure it was not; Tom and Hattie must depend upon themselves, even if it is hard for them. And then there is the change in Mary and Alice."

The winter was passing. Already the days were growing longer, and, when the sun shone, its rays fell warm and caressing over the bare brown hills.

Elsie was planning the next summer's work with care. Bert was to remain on at the farm. He and Elsie held many anxious conferences concerning the crops and stock.

For some time the sisters had seen little of Jerome Dare. He had spent a fortnight in his old home. When he was at the farm it was but rarely that he came to the Howard home, although Mary and Alice always greeted him cordially, while Elsie hid her real feeling under an air of carelessness.

One afternoon in March Dare came to Howard Farm. It was Elsie who answered his ring, and she invited him to enter.

Very cozy and homelike the sitting-room looked. There was a fire in a stove and also one in the fireplace. The windows were filled with silvery leaved begonias and blossoming geraniums. There was a pleasant litter of books, magazines, and fancy-work on the large table that occupied the center of the room.

"My sisters?" Elsie repeated Jerome's inquiry. "They both drove into Lenox this afternoon. It is the day for Mary's music lesson, and Alice had a package of photographs to send to Chicago."

"Then her last pictures developed well?" Jerome asked, holding out his hands to the blaze.

"Very well, thank you. Alice is so happy over her work, and her health seems entirely restored."

"It is wonderful. Merdith is an excellent physician, as well as an all-round good fellow. Here are some magazines I brought Alice. It is the articles on photography that I want her to see. And this clumsy package is a can of maple syrup for Miss Howard."

"You are not making maple sugar, are you? I can remember when sugar-making in the woods you now own was one of the events of the year with us all."

"Next year, if I am here, I shall try it. Now Flip and I have been amusing ourselves by boiling down a little sap at the house."

"I will thank you for my sisters," was Elsie's gracious rejoinder. "You are very kind, Professor Dare; magazines for Alice and maple syrup for Mary."

"I am going to ask you also to accept something from me," Jerome said, speaking slowly, as if not just sure of himself.

"I? What can it be?"

"That difficult thing for you to accept —advice."

Elsie's face colored. She moved her chair back, as if the heat of the fire was too great.

"Please explain."

"It is only a trifle, Miss Elsie. I was talking with your man Bert yesterday, and he told me about the grass seed you had decided to purchase. Now I have been studying soil this winter, doing considerable laboratory work while I was at Audry. I took samples of your soil as well as my own. It is a mistake for you to sow clover on those south pastures. Timothy is what you want."

"You mean well, Professor Dare, but Howard Farm has been seeded to clover for many years."

"I know. Bert says the sod has never been good on those fields. The soil is too—"

"You must remember that I do not understand your laboratory experiments," Elsie interrupted her caller to say. "They may be most interesting, but our farming is a business, not a fad."

Jerome Dare stood up. His face was impassive, but his voice was a trifle heated.

"I beg your pardon, Miss Howard. I see that my words are an affront to you,

"A cry broke from her lips, but it was drowned in the crash of the falling timbers"

but I assure you that they were not so meant. Good afternoon," and he left the room, closing the door emphatically behind him.

CHAPTER IX.

Jerome Dare strode down the hill, his hands clenched, his breath coming hard and fast. There was no denying the fact that he was very angry.

"Now that you have made a fool of yourself, Jerome Dare, I hope you are satisfied," he muttered. "A dozen petty slights and one downright rebuff were not enough for you. You must go up to Howard Farm and tell Elsie how to run her business. Bah!"

He hurried on. A little later he continued his self-berating.

"It served me right. But Elsie Howard is too independent and assertive. If she was not so confoundedly pretty! And she has the tastes of a refined, cultured student. The advice I gave her was good, for all her rating. Well, I have offered to help her in her studies, and I've advised her in her farming, only to have both help and advice thrown back in my face with disdain. Never again, under any circumstances, will I offer Elsie Howard advice or help."

As for Elsie she tried hard to justify herself, to herself, for the way in which she had scorned Jerome's well-meant advice. She did not speak of the matter to her sisters.

"I did not mean to be really rude," she thought. "Still Professor Dare might as well be given to understand that no expression of his approval or his displeasure will influence me."

A week after Jerome's call upon Elsie there came a long and severe storm. For three days the rain fell almost unceasingly. The rapid melting of a heavy fall of snow had already swollen the streams of that vicinity and overflowed many of the low fields. Several bridges near Lenox were swept away, and the roads were almost impassable.

Elsie secretly fretted a little because of the delay in some of the work she had planned for that season. Then two score of young lambs were a constant care to her, and she spent considerable time in personally looking after them.

One afternoon she was at the barn when she saw Jerome Dare approaching the house. Elsie shrugged her shoulders.

"I am glad I saw him in time to spare him the affliction of my company this time. Mary is at the tenant house, helping Patty tie a comfortable. Well, Alice is a favorite of the professor's. They can talk photography, and, in her good nature, she can do the admiration act for his self-conceit."

It was still raining, a fine penetrating drizzle. Elsie finished feeding her lambs and busied herself about the barn, all the time keeping a close watch upon the gateway through which Jerome must pass.

"Well, I should say it was time," she exclaimed sharply when, after three quarters of an hour, she saw Jerome emerge from the yard and walk briskly down the road.

She made her way to the house. From the kitchen she ascended to the second floor, by way of the back stairs. No sooner had she reached her own room than, glancing from the window, she saw Doctor Merdith tying his horse at the gate.

"Too bad Damon missed his Pythias," Elsie said to herself, smiling whimsically. "What is wrong with me. I do not care for even Doctor Merdith's cheery chat, as well as I like him."

Elsie sat down at her desk and began a letter to Myra. After fifteen minutes and several ineffectual efforts, she tore up the last beginning and tried to read.

It was difficult to keep her thoughts centered on the words before her. At last she threw down the book, asking herself:

"What does ail me? I believe I'll go for a walk, notwithstanding the rain. Why, I had forgotten Doctor Merdith, and he is just going. Alice's callers linger to-day."

Elsie went down stairs, trying to hum a tune. As she opened the sitting-room door she cried:

"Why, Alice, what is it? Are you ill?"

Alice Howard was lying on the couch, her face buried among the cushions. She sat up, holding out her hands to Elsie.

"Not ill. I—Elsie, I am not sure that it is right for me to take the great happiness that is offered to me."

It was a glorified face that was lifted to Elsie Howard. It seemed as if Alice's years had slipped from her, and her face was again touched with the charm of youth. The tender smile that illumined her countenance was in her eyes rather than upon her lips.

Elsie dropped upon her knees by the other's side. The younger sister did not understand, but she felt that she was in the presence of something sacred.

"What is it, Alice?"

"See what one short year has brought me: health, an interest in life, and happiness. I thought that my heart was buried in Carl's grave. It is not that I have ceased to love his memory, but I—Elsie, I have learned that womanhood has its love, as well as girlhood."

"Alice, what do you mean?"

"I mean this," and she held up her hand before Elsie's eyes.

On one finger glittered a diamond ring. Alice touched it caressingly with the other hand as she said:

"It is my engagement ring."

Elsie stood up. Just then Mary entered the room, and Patty Smith was with her. Alice made a gesture that enforced silence, and Elsie nodded assent.

They talked of various things. After a little Elsie stole out to the kitchen and arrayed herself in the long, rough coat and cardinal cap that she had taken off on her return from the barn.

Opening the back door Elsie stepped out. The mist was still falling.

Elsie shivered. She opened the gate into the lane and started off, walking briskly.

After five minutes she slackened her pace. Following a habit of hers, when she was disturbed, she spoke aloud.

"Alice engaged! And to Professor Dare! Somehow I am stupefied. It makes me dislike him even more than before. Why, it must be that he loves her, and there can be no mistake about her feeling; her face was radiant."

"I have made over one of the Howards. My success takes my breath. Oh, I never dreamed of this! I thought we would live on here, three happy old maids. I am glad that happiness has come to Alice, but—oh, that man!"

She stood still, leaning on the fence. Why did she feel so strangely? Her anger was half fierce pain. Was it because her plans were overthrown? Why was it that Jerome Dare seemed doomed always to interfere in her life? And this time she was powerless to prevent him.

Soon she walked on, crossing the field that stretched between the lane and the creek. She was vaguely conscious of an intention to pass over the bridge and enter the forest.

She was still ten rods from the bank of the stream when she came face to face with Jerome Dare. He lifted his hat.

"Did the demon of unrest that has haunted me all day, also drive you out for a walk, Miss Elsie?" he asked pleasantly.

"Yes. No. I—yes, I am going for a walk," and she hurried on.

"I hope she is not in an unreasonable mood to-day," was the whimsical thought that flashed through his mind as he raised his voice and called:

"Miss Elsie!"

She paused, turning impatiently in his direction.

"What is it?"

"I hope you do not intend crossing the bridge."

"Why should you hope that? For me to do so will be trespassing."

The emphasis she put upon the pronoun was not to be mistaken. Jerome Dare felt a wave of indignation sweep over him. Yet he must go on and make his meaning plain.

With long strides he approached her side. His voice was firm, almost stern.

"I hoped that you were not intending to cross the bridge, because I have already learned that it is not easy for you to change your mind. In this case you will be obliged to do so, for the bridge is unsafe. I myself intended crossing it, but, after an examination of the structure, I turned back."

"Thank you for your solicitude, Professor Dare. I am not going to relinquish what I have undertaken. As for the bridge, it has stood here ever since I can remember."

"All the more reason why it may not be safe," Jerome said quickly. It was only by a great effort that he kept his voice steady as he went on.

"The bridge is unsafe; you must not attempt to cross it."

"Must not! Professor Dare, you go too far. You have no right to command me. I am not afraid, and I will cross the bridge."

She walked forward. He kept his place by her side, his face white and hard.

"Do not let your foolish wilfulness carry you into danger. You have no right to risk your life."

Elsie did not reply. Her eyes were fixed upon the mass of yellow, foam-dotted water that raced along between the banks, at an alarming rate of speed. It was laden with uprooted trees and other debris brought down from the region through which the stream flowed. The water was very near the rough planks which formed the floor of the bridge.

No sense of fear came to Elsie Howard. She knew that she was doing a foolhardy thing. Yet at that moment she had but one desire—a strong wish to defy the authority expressed in Jerome Dare's voice.

Without a look in his direction she stepped upon the bridge. Jerome cried:

"Come back, Elsie! Come back!"

Instead of heeding his command she pushed on. She was half-way across the bridge when an ominous crack sounded in her ears. With the supports of the bridge weakened by the flood, it needed only the weight of Elsie's body to hasten the destruction.

The planks seemed to bend beneath the woman's feet. A cry broke from her lips, but it was drowned in the roar of the flood and in the crash of the falling timbers. The supports of the bridge on the side from which Elsie had started fell forward into the stream, carrying with them the floor and also Elsie Howard.

CHAPTER X.

Jerome Dare waited only long enough to throw off his coat and shoes. Then, after a quick glance up and down the stream, he cast himself into the roaring flood.

The risk he was incurring was only too well known to him. It was barely possible that he could reach Elsie. If he did, could he succeed in bringing her to the shore?

Where was she? Ah, there was her red cap. She had risen to the surface of the water, and—God be praised! Elsie was clinging to a tree top and, with it, was being carried down stream.

Jerome was an excellent swimmer. He had himself well in hand, being cool, resolute, and self-possessed. No matter what came to him, he must save this girl's life.

He husbanded his strength, allowing himself to float down the stream for a few rods. The current and the shelving bank carried the uprooted tree to which Elsie was clinging nearer the shore he had just quitted. When Jerome saw that he exerted all his strength and soon reached Elsie's side. Above the roar of the water he heard her cry:

"Do not endanger your life for me. I am not worthy of the sacrifice."

He caught hold of the limbs of the tree.

"Take hold of my arm. Do not struggle. Yes, that is the way."

It was only a few minutes that Jerome Dare fought his way through the raging flood. He could not have endured the strain for any length of time. A great branch torn from some tree struck his shoulder, and, in that moment, the pain forced a groan from his lips, but he pressed on.

When at last they reached the shallow water, Elsie understood that her companion was well-nigh exhausted. She threw herself into the breach, even helping Jerome up the bank.

They sank down at the water's very edge, too weak and faint to think of aught save a moment's rest. It was Jerome who spoke first.

"We—you must hasten home. Can you walk?"

Elsie stood up. All her capricious defiance was gone. She replied to Jerome's question gently, although she was shivering with cold.

"I must walk. And you—you are exhausted. Ah, what is it?"

Jerome's face was contracted with pain. It was a moment before he could trust his voice to say:

"Just a twinge from my shoulder. It got a bad bruise from some of that floating debris. Come, we must hasten."

He held out his hand. As Elsie laid her own in it she said tremblingly:

"You risked your life to save mine. And I was so childishly, so wickedly obstinate. How can I—"

"We must not stand here, talking about that. If you do not want us both to get our deaths of cold, you will hurry homeward. Perhaps this time you will take my advice."

Elsie made no reply; she was too wretched to speak. For the first time in her life she was conscious of hating herself. Her perverseness had cost not only herself, but also Jerome Dare dearly.

Neither of the two would ever forget that walk. To the gloom of the gray mist that enveloped the earth was added the fast-gathering shadows of twilight. The wind was raising, and it sobbed and moaned, like a creature in sore distress, besides piercing the wet garments of Jerome and Elsie and chilling them with a benumbing, freezing cold.

No words were spoken. In every possible way Jerome helped his companion. As they entered the lane, and he heard her rapid irregular breathing, he took her hand and drew it through his arm. Elsie would have resisted, but he said firmly:

"It may enable us to hurry a little."

On they went. The girl was chilled to the bone, her wet garments weighed her down, and her breath came in hurried, fitful gasps.

Why would he not go on, on to safety and warmth, and leave her there, to die if need be. Then, with something of her old impatience, Elsie put the question from her. He would not because—well, because to do such a deed was not possible for Jerome Dare.

They approached the farmhouse from the rear. Lights were gleaming from the kitchen and dining-room windows. Soon, very soon, they would be sheltered from that awful cold.

As they approached the gateway that gave entrance from the lane to the back yard, Elsie said abruptly:

"How can I ever thank you! But for you, ere this, the life would have been beaten out of my body by that mad rush of howling, angry water."

"Do not talk about it, for—" Jerome began, then, the movement of opening the gate having again wrenched his shoulder, he leaned against the girl he was trying to support, himself sick and faint.

Elsie understood. With an outlay of all her strength she guided his tottering steps forward. They crossed the yard, stumbled up the steps, and Elsie threw open the kitchen door.

The long, low room was brightly lighted. A wood fire crackled in the shining range, and the air was redolent with the odor of steeping coffee and frying ham.

"Elsie! Professor Dare! What is it?" Mary asked, darting forward. "Why, you are both dripping wet, and—"

"Professor Dare saved my life, risking his own to do it. He told me not to go on the bridge, but I would, and it gave way with me. I am—Oh, Mary, I am sure I will never be warm again!"

Elsie had advanced to the side of the stove. It was just in time that Mary Howard caught her fainting sister in her arms.

Of the events of the next two hours Elsie retained only an indistinct, troubled recollection. She was vaguely aware that Alice's tears dripped on her face, also of Patty's noisy sobs. She knew that her wet garments were removed. She was lifted into a bed and rubbed with hot flannels, while steaming decoctions were poured down her throat.

With those things were curiously mingled memories of the strenuous hour that had gone before. Again and again Elsie felt the sensation of being engulfed in that flood of rushing icy water, its howling rose higher and higher in her ears, and she felt its powerful current striving to tear her hands from the slender branch that was the only thing which separated her from death.

She relived the few minutes when Jerome Dare had battled for her life and for his own. Then there was the long, dreary walk. Even as she drank the cup of bitter herb tea that Mary held to her lips Elsie shivered and shrank from the penetrating chill of the wind. Yet the arm upon which she leaned was strong and steady. She could trust Jerome Dare, and yet—

What was it? Something was pushing her away from Dare's side, was pushing her back into the torrent of foaming water. Why, it was Alice. What did it mean? Ah, she knew. The place at Jerome's side—why, that was Alice's place.

In the meantime Mary Howard had risen to meet the needs of the hour. Jerome retained his consciousness and his self-possession; he helped Miss Howard plan, although he was too nearly exhausted to be of any assistance in carrying out those plans.

The first step was to summon the inmates of the tenant house. Patty's brother was there, and he was despatched, on the best horse in the barn, for Doctor Merdith. Both Patty and Bert lent their willing aid.

Elsie was put to bed in a small apartment off the dining-room. Jerome protested in vain. A bed was prepared for him on the cot in the sisters' rest room, and Mary insisted on his occupying it.

Jerome admitted that his shoulder was badly bruised. Mary found that it was discolored and already badly swollen. Promptly she applied hot fomentations, saying:

"It will prevent its growing worse, until the doctor comes and may ease the pain. Trouble, did you say? Now, Jerome Dare, never say that to me again. Why don't you know that if it had not been for you Elsie would have been drowned?"

"Yes, I know," he said a little grimly. "Still, it would have been better if I could have reached my own home. Flip could have cared for me."

"So can I. I know that Elsie was to blame, but, had she gone to her death, the sunshine would have been blotted out of my life."

Elsie regained complete consciousness before the arrival of Doctor Merdith. She roused from a fitful sleep and smiled up into Mary's face.

"Yes, I am better. That is, I am not quite so cold. Oh, how good it seems to be in bed! Mary, if—if it had not been for Jerome Dare!"

"God was good, dear," and the older sister took the younger one in her arms. "How could I have lived without you, Elsie? There are only us two now. I think Alice told you."

Elsie lay back on the pillow. She had forgotten.

"Yes, Alice told me. Where is she?"

"With Professor Dare. We are keeping hot fomentations on his shoulder. No, I do not think it is anything serious."

Of course Alice would be with him. It was her place.

"Jerome Dare was brave and generous to save my life," Elsie thought, "but I almost wish he had let me drown. I deserved it. Then I know I shall hate him worse than ever, both for daring to claim Alice and for proving to me that I am a headstrong fool, and I am grateful to him, too."

In a few minutes Elsie's weakness conquered her, and she again fell asleep. That time she slept for several hours, the deep, dreamless sleep of exhaustion.

When she woke she was at first puzzled by the strangeness of her surroundings. Where was she? Why was a shaded lamp burning at her side?

Gradually it all came back to her. The clock on the sitting-room mantel struck two, and unthinkingly she spoke aloud.

"Why, how long I have slept!"

"Yes, and I am sure you feel better," said a deep, mellow voice, and Doctor Merdith, who had been seated just outside the door, entered the room and turned up the light.

"How are you, Elsie? Better I am sure."

"I think I am all right. Why are you here? Was Professor Dare so badly injured that it was necessary for you to stay?"

"Jerome? Oh, he is all right. His shoulder was bruised and strained, but in a fortnight it will be as good as new. I stayed because it is very dark, and the roads are beyond my power of description. Then, besides my interest in both you and Jerome, I thought it was my place to stay. Alice told you, did she not?"

"Alice? She told me that she—she—"

"That she had promised to be my wife. I know I am not worthy of her, but I will make her happy—I will. Here I am, gossiping like an old woman. Now I am going to bring you a glass of hot milk. You are to drink it and go to sleep again."

As Doctor Merdith took the empty glass from Elsie's hand he asked wistfully:

"Are you glad? I know something of the sense of loneliness that this will bring you. But you are glad because Alice is happy?"

"Yes, I am very glad," Elsie said, letting her hand rest for a moment in his.

Then she sank back among her pillows. The room was very still. She could hear the soft tap of the rain against the windows. The storm still raged, but Elsie's heart was at rest.

"I am very glad I am alive," she thought as she slipped one hand beneath her cheek. "Yes, glad, even if I must thank Jerome Dare for it."

[CONTINUED ON PAGE 21]

◈

Mr. Grumpey's Cold

"I SAY, Hanner," wailed Mr. Grumpey from the depths of his easy-chair, "this 'ere plaguey cold of mine is gittin' worse an' worse every minute, an' I wish you'd hustle around an' do somethin' for it if you're ever goin' to! Now that you've kept dingin' at me until you've got my life insured it don't make a particle of difference to you, I s'pose, if I catch the pneumonia or the gallopin' consumption, or 'most anything else that comes along! Big pile of sympathy a fellow gets when he is flat on his back, so to speak, with a cold on top of him bigger'n a meetin'-house!"

"Somebody run to the door and call Gadabout back!"

"My dear," said Mrs. Grumpey, gently, "why don't you try ginger-tea and molasses? Only the other day I was reading in the almanac—"

"I know you was!" broke in Mr. Grumpey, hastily. "You're always readin' somethin' or another in the almanac! You'll manage to pizen the hull crowd of us yet with some recipe you get hold of in that way! I hain't forgot the batch of flapjacks yet you made from somethin' you got out of an old patent-medicine almanac a month or so after we got married. It's more'n ten years sence I e't them flapjacks, but my stomach hain't entirely got over the effects of it yet."

"Well, you can't blame me, can you, if you went to work and ate up the whole of two dozen flapjacks at once! It certainly wasn't my—"

"Never mind about them air flapjacks!" interrupted Mr. Grumpey. "What I want to know is if you're goin' to look over the medicine-chest an' get me somethin' for this cold, or have I got to suffer on in silence till I die of influenzy or epizootic, or some other tarnal complaint of that sort!"

"If you suffer on it won't be in silence; that is quite evident," retorted Mrs. Grumpey, dryly. "But—let me see—what was it I did for it when you had that bad cold right after New-Year's?"

"Got me to soak my feet in a tub of b'ilin'-hot water an' mustard! That's what you did that time; but you don't coax me into no such fool performance as that again, not as long as I'm able to set up an' defend myself! You've got to cure me with my boots on this time, if you cure me at all! I don't propose to have the skin all scalded off my feet every time I take cold!"

"Well, then, why don't you try goose-grease for it?" suggested Mrs. Grumpey. "That is what my mother always used for a cold. You grease your nose with it, rub a little of it on your throat and chest, and then mix a few drops with molasses and take it internally, and the next morning your cold is gone."

"Yes, I s'pose so! Sounds all right, but where's your goose-grease comin' from? Ain't got any of it in the house, have you?"

"N—no, I think not, Silas. I'm sorry; but perhaps I might get it at the drug-store. If it's good for colds they ought to have it for sale."

"Had, eh?" sniffed Mr. Grumpey. "Ever hear of a druggist keepin' an' old woman's remedy of that kind on hand just because he knew it would knock the spots out of a cold? I guess not. If he cures a cold at all he's goin' to cure it with a patent prescription of his own, costing seventy-five cents or a dollar every clip! He isn't in the business for his health, exactly! An' now we've got that point settled I'd like to know if you're really goin' to do anything for this 'leven-story cold of mine? If you are you ought to act mighty quick; I can't stand it to suffer so much longer!"

Just then the door-bell rang, and as Mrs. Grumpey went to answer it Mr. Grumpey groaned, "That's right—that's right! Go ahead an' wait on some tramp or other an' let your helpless an' sufferin' husband die for want of a little attention! That's the woman of it every time! Oh, you've got back, have you? Well, did you get rid of your tramp?"

"Yes, I got rid of him. It was your friend, Mr. Gadabout, who called to get you to accompany him to the ball-game. He had free tickets for this afternoon, it seems; but I told him that made no difference, for you had a very bad cold and couldn't pos—"

"Eh? What's that?" roared Mr. Grumpey. "Told him I had a bad cold and couldn't go, did you? Well, I reckon it'll take a cold considerably bigger'n this one to hold me back when there's a chance to see a good ball-game free gratis for nothin'! What does a woman know about a cold, anyway? Somebody run to the door an' call Gadabout back! Gimme my hat an' overcoat, Hanner; I must hurry! We don't have more'n time to get there now before the game begins!"

And exactly sixty seconds later the complaining sufferer of a few moments before was nimbly stepping off down the street, arm in arm with his friend Gadabout, apparently as well as ever. Those free ball-game tickets had wrought a most miraculous and sudden cure.

WILL S. GIDLEY.

◈

The Strange Adventures of Helen Mortimer

By Miss Maud Roosevelt

The above is the title of a thrilling serial story that will be printed in Farm and Fireside, commencing in the November 15th issue. The first American publication rights have been purchased for the use of this paper, exclusively, so if you want to read what promises to be the greatest fiction treat of the season, you will have to get Farm and Fireside.

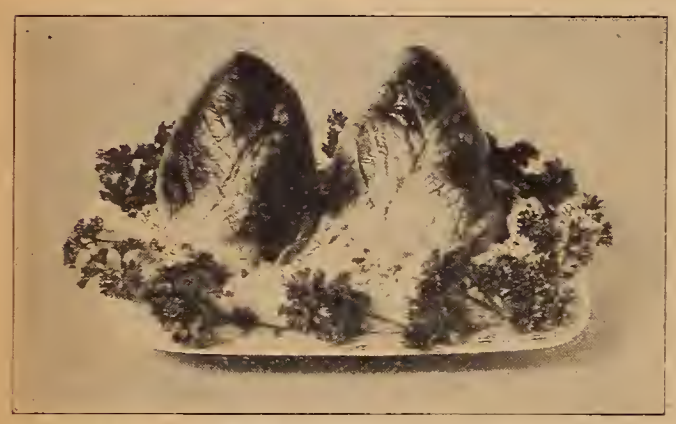
The Housewife

The Much-Abused Parlor

A FEW years ago anyone who had a parlor and called it by that name was not supposed to know what was latest in styles, for the living or sitting room was the chief consideration in the home. The parlor was described as a cheerless, cold, formal room opened only on state occasions and damp and musty even in midsummer. The feather-bed and the parlor fell into disrepute about the same time, and they are now slowly creeping back into favor.

As a matter of fact the parlor is one of the necessities in a home where there are children. It should by no means be the best room in the house, but should, instead, be a small one convenient to the front door. The old idea of taking the best room downstairs for the parlor and the sunniest bedroom upstairs for the guest chamber led to the revolt against the useful parlor and drove it almost out of existence for years.

There was a time when the living-room was exalted



STUFFED CALVES' HEARTS—Cut central muscles out, then cover with equal parts of vinegar and water, adding one teaspoonful of salt, six cloves, one half of a bay-leaf; soak for two days; wash, and simmer until tender; stuff with highly seasoned bread dressing; brown in a hot oven; pour thickened gravy about the base; garnish with sprigs of tender young parsley.

to the skies and the idea is all right, but as a company room it is a flat failure. One man who used to decry the parlor longs for the old house with its quiet cool room into which guests were taken. The new home has a large living-room with plants and books and flowers and a piano, but into it every caller and guest must be brought. The man of the house may be reading by the lamp with his feet perched on a chair, but he must be disturbed if anyone comes, no matter what the errand. In the old days the chance caller, the man on business, the agent, the lady soliciting cake for the next social—all were taken into the parlor where one member of the family could attend to their wants, but those old restful days are gone forever.

The dear busy mothers who must pick their way over and among small playthings to admit callers, will find a parlor one of the best things they ever possessed. One of the chief objections to the old-time parlor was that the children were seldom admitted, but now that seems to be the best reason for having such a room. There is nothing attractive about the formal little room to the little folks, but it is a haven of rest when people come unexpectedly. By all means have a parlor if you possibly can, for you will surely enjoy the idea that there is one room in perfect order on days when the rain pours or illness keeps the restless children indoors from morning till night.

Very simple furniture will do for the parlor. A few chairs, a small couch, a table with a few magazines and some ornaments and pictures will be all that is required since the room is not to be used for the family. Of course it can be as pretty and dainty as the purse can afford, but should not have the best things in the house. With a parlor the children with their playthings need not be banished to the dining-room right in the

GOLDEN MOUNT POTATO—Add to one quart of sifted potatoes the beaten yolks of three eggs, one half teaspoonful of salt, one fourth of a teaspoonful of paprika, one teaspoonful of grated onion, one tablespoonful of minced parsley, two teaspoonfuls of minced celery, two tablespoonfuls of melted butter, then add the stiffly beaten whites of eggs; mold on a buttered plate; score, brush with egg, and bake twenty-five minutes; slip onto a white china plate when ready to serve.

midst of a game, and the husband and father can discuss business matters without being compelled to caution the children not to mention what Mr. A. said. A great deal of abuse has been heaped upon the parlor, but it is coming back into favor with busy people as a time and labor saver in the home.

—HELEN◇MORTIMER—

After the Funeral

NO ONE in the neighborhood had ever seen that the second son in the family of Mr. and Mrs. C. had been especially beloved in the home, but after his funeral one would have supposed their hearts were broken. The boy had worked early and late on the farm, staying out of school until corn husking was finished in the fall, and always dropping out with the first warm days of spring, and there had never been a bit of effort, apparently, to make the home a pleasant place to dwell in. In fact the neighbors were wont to think of the C.'s as narrow and harsh in their lives, and they still have that opinion.

But when the poor boy died a costly casket was provided, and in due time a monument erected to his memory that represented more than had ever been spent on him by his parents during his lifetime. Perhaps there was nothing wrong with this, for the family could well afford to buy costly monuments, but life in the home became more narrow and harsh than ever. To hear the parents talk one would suppose the dead boy had had all the virtues of the children and the living ones all the faults. They never dreamed of being better to the remaining children because one was taken from them, but rather neglected and ignored them to grieve over the one gone before.

Perhaps the saddest time in the history of any home is the time immediately after the funeral. During the illness and even when death has invaded the home there are friends to cheer as far as possible and duties to occupy the minds of the mourners, but when the deathly stillness and gloom settles down after the funeral it is no wonder women give way to their feelings and cry out in bitterness that there is no more joy and happiness possible in the home because of the vacant chair. Especially is this true if the day of the funeral is one of those weeping, wailing days in the fall, when all nature seems in tune with the cry of the bereaved friends. To lay away our friends on a calm, sunny day with the voices of birds and the hum of insects in our ears, and the words of the minister reminding us of the "Resurrection and the Life," is a far different thing than to stand in a pouring rain and watch the yellow clods fall on the casket, or hear the winter winds howling over the frozen landscape. At best the silent house

HENRIETTA SALAD—Pick cooked fish into flakes; cut cooked carrots, beans and Savoy cabbage into small pieces, mix with fish, lay on bed of endive; pour on two tablespoonfuls of vinegar, one tablespoonful of oil, one teaspoonful of salt, dash of paprika; when serving garnish with sliced tomatoes, quarters of hard-boiled eggs and mayonnaise. To be palatable it must be chilled before serving.

will be oppressive to the women of the family, but gloom outside and in are enough to strike terror to the stoutest hearts.

But in a few days life should take on a better aspect. For the sake of the living the mother of the family should make an effort to appear cheerful, even if she is sad at heart. Little children should not be expected to thrive in closed rooms where sunlight and smiles are excluded. You can do nothing for the dead, so why not make an effort for the living. If you made life pleasant and joyful for the one who has left you for a better world, you have nothing to grieve over, and if you neglected your duty make such amends as you can to the ones left with you. Ruskin says he never saw a Christian so convinced of the splendor of the mansions of rest as to be glad when his friends were called to dwell there. While it is impossible to feel joy at their departure we may at least honor their memory in a better way than by weeping and mourning continually.

More and more, people are becoming convinced that it is unhealthful and foolish to go into mourning for years after the death of a relative, and when mourning is worn it takes a much lighter form than we once saw. The long crape veils falling to the hem of the garments have disappeared, and with them much of the weight of dull trappings that once sapped the strength of delicate women. White is commonly worn in summer for mourning, and is surely just as appropriate when a narrow band of black proclaims the mourning as the old-fashioned black that required lining of the same hue and was suffocatingly hot. If anyone objects to pure white it is possible to buy lawns with pin stripes or small dots in black which are cool and comfortable for hot weather.

Don't refuse to be comforted after the funeral, and shut out the light and air. If you do not regard your own health and happiness have some consideration for others. The mother who said she hoped she would have lingering consumption and suffer exactly what her only daughter suffered with the dread disease, thought she was showing her devotion to the young woman, but her family must now bear the burden of her lack of precaution. It is not devotion but foolishness, if not positive sin, that shuts out the blessing of life from the home because one chair is vacant. Of course you will be sad and lonely many times, but it is not necessary to cultivate these feelings. It is natural for wounds to heal, and only foolish people persist in keeping them open by special efforts. Give nature a chance to help you forget and never fear what the neighbors may say. You are living for your family and not for the neighbors. Possibly you may set a good example for the neighborhood, and even if you do not, you will be doing your duty toward your loved ones, and that is far better than anything else a woman can accomplish.

HILDA RICHMOND.

—HELEN◇MORTIMER—

Some Excellent Winter Puddings

MASCULINE appetites, in zero weather, are apt to scorn the delicate trifles and frozen sweets so popular as desserts throughout the summer, and hot puddings of a substantial nature are usually greeted with unqualified approval. Some excellent recipes for plain winter puddings are the following:

MARMALADE PUDDING—Mix together three eighths of a pound each of finely chopped beef suet, dry bread-

LEMON TARTS—Juice of two lemons, grated rind of one, one cupful of sugar, three fourths of a pint of boiling water; stir into this two tablespoonfuls of corn-starch thinned with a little cold water; cook, then add one tablespoonful of butter, beaten yolks of four eggs and a pinch of salt; when cold fill the flaky tart-shells to the brim, and cover with a boiled icing flavored with lemon-juice.

crumbs, and powdered white sugar, four eggs and half a cupful of cream; let stand one hour, then whip well with an egg-beater for ten minutes; butter a plain tin mold, put in a layer of the mixture, then a layer of orange marmalade, and proceed with these alternate layers until the mold is full, having the last layer of the marmalade. Bake in a moderate oven for one hour and a half, turn out carefully, and serve with sweet sauce.

BATH PUDDING—Beat together one fourth of a pound of butter and five ounces of white sugar, then add five eggs, one at a time, beating them in thoroughly, one quarter pound of bread-crumbs, one cupful of flour, three ounces of finely chopped beef suet, half a cupful of milk, a little grated nutmeg and ground ginger, and half a pound of candied fruits cut in short, thin shreds. Mix all well together, turn into a well-buttered mold, tie a floured cloth over it, then boil rapidly and steadily for three hours. When done, turn out on a very hot dish, and pour over it a sauce made as follows: Cook in a double boiler until it thickens a custard made with the yolks of three eggs, three tablespoonfuls of white sugar, and a small cupful of milk, when done remove at once from the fire, stir in a drop of essence of lemon, and one small glass of melted red currant jelly.

COFFEE PUDDING—Bring to a boil in a double boiler one fourth of a pound of butter, one and one fourth cupfuls of white sugar, one cupful of milk, and half a pint of strong black coffee. When boiling stir in six ounces of flour, and continue to cook and stir until the mixture leaves the sides of the pan quite freely; then stir in the yolks of two eggs well beaten, and lastly mix lightly in the stiffly whipped whites of the eggs. Turn into a well-buttered mold, tie a floured cloth over the top, and steam the pudding for one hour and a half. When done turn out on a hot dish, sift powdered white sugar over

CARAMEL FRUIT FLOAT—To one quart of hot milk add beaten yolks of eight eggs, one cupful of sugar, one fourth of a teaspoonful of salt, cook in a double boiler till thick; chill, add one tablespoonful of caramel; place a layer of cooked Bartlett pears in deep dish, pour over the float; beat whites stiff, add six tablespoonfuls of sugar, one teaspoonful of vanilla, and garnish the top; set on ice.

the pudding, and serve with whipped cream, sweetened and flavored with vanilla.

APPLE CUSTARD PUDDING—Peel, core and cut small one dozen medium-sized apples; cook them in a lined saucepan with one teacupful of cold water. When done whip them to a smooth pulp, flavor with the grated rind of a lemon, and add sufficient sugar to make quite sweet. Make a custard with one pint of milk, four eggs, and two tablespoonfuls of sugar. When the apple pulp is cold, place it in the bottom of a pudding dish, pour the custard over it, add a little grated nutmeg, and bake for half an hour in a moderate oven. The whites of two of the eggs may be reserved to make a meringue to spread over the top of the pudding.

Square Centerpiece in Solid and Eyelet Embroidery

COMBINATIONS of eyelet embroidery and solid or satin stitch are among the most prominent styles of needlework seen this year, and are desirable not only because of their beauty, but from a practical standpoint as well. No form of needlework wears or launders better when well done, and there is nothing about either of these embroideries which deters even an inexperienced worker from mastering their details.

Two or three generations ago variations of this combination were a source of delight to needleworkers, and now are often referred to as "Colonial embroideries." Many of these old-time pieces are

CENTERPIECE IN SOLID AND EYELET EMBROIDERY

household treasures of the present generation after years of service, a sufficient proof of their utility. Some of them exhibit a neatness and skill in the use of the needle which far eclipses the average work of to-day, but the continued fashion of decorating everything belonging to the household linen closet as well as the wardrobe with dainty handwork will soon give to our clumsy fingers an equal nimbleness, and coupled with clever ideas our work may yet come to be prized by those who follow after.

To draw one's own design was frequently an important part of the work of these old-time embroiderers, and added greatly to its value and uniqueness. If we can but follow in their footsteps in this respect and give to our needlework creations an individuality all their own, not only will they be of more value in our own eyes and those of the public in general, but how much more dearly our descendants will cherish them. Even though the design may not be as artistic as some it will incorporate our own ideas, and give us something which will not lose its attractiveness by becoming common.

In working combinations of eyelet and solid embroidery first-class materials should be used. The old bleach linen is fine as a background, and some softly twisted cotton floss of sufficient fineness to harmonize nicely with the linen will answer as a working medium. A stiletto is a great help in punching the eyelets, but not an absolute necessity, for by exercising care the ends of a sharply pointed scissors will answer.

The eyelets should be outlined with small running stitches before punching. Then overcast closely to cover these stitches, rolling the edge under in the process.

The solid parts must be padded by lengthwise stitches thickly placed and well heaped toward the center. The outer stitches are then taken crosswise over these. Outlining or stem stitch will answer for any stems or lines appearing in the design.

In the twenty-inch square shown this method was followed, after first hemstitching, ladder fashion, an inch wide hem into place. This same design may be arranged across the ends of dresser or buffet scarfs, or will form a pleasing ornamentation for the front of a shirtwaist.

A circular piece of linen with the design worked in a circle some distance in from the edge will form an attractive bag for fancy work or collars and cuffs. The edge should be buttonholed in shallow scallops. These may be drawn around a spool if one is not equal to marking them offhand. Inside the scallops at regular intervals work buttonholes or slits through which to run ribbon for draw strings. Formed of écru linen, with decorations of red outlined with black, these bags are very handsome, and will provide acceptable gifts for either sex.

MAE Y. MAHAFFY.

—HELEN◈MORTIMER—

To Wash Woolen Underwear

A GREAT many people cannot wash woolen underwear without them shrinking and becoming too thick and small for comfort. I never have any trouble in that way. This is a good method to follow: Place the garments to soak in water hot enough to stand the hand in comfortably. The soap should be boiled in the water and never rubbed on the garments. To every three gallons of water add one and a half tablespoonfuls of liquid ammonia; this helps to remove the grease. Let soak an hour, then wash by drawing through the hand. Do not rub woolen garments. Rinse twice in lukewarm water. They should be hung up lengthwise and ironed while still damp. M. M. W.

—HELEN◈MORTIMER—

Children's Diet

OFTEN when a milk diet is prescribed for a sick child, they grow tired of it and refuse to take it. Try coloring it with a little harmless vegetable coloring, and then let them suck it through straws. It can also be solidified with gelatin and flavored with some delicate flavor. They will often take it from toy cups or glasses willingly, when refused from a larger vessel. M. M .W.

—HELEN◈MORTIMER—

Corn Oysters

TO SIX good-sized ears of corn add three well-beaten eggs, one tablespoonful of cream, and one of flour; salt and pepper to taste, fry in butter and serve hot.

—HELEN◈MORTIMER—

Knot-Stitch Point-Lace

CH 70. First row—1 dc into 6th st, ch 2, dc into 4th st, ch 2, dc into 4th st, ch 1, shell (2 dc, 3 ch, 2 dc) into 3d st, 2 knot-stitches (hereafter called ks) catch into 13th st, 2 ks, shell in 13th st, 2 ks, catch into 13th st, 2 ks, 4 dc in last st.

Second row—Ch 3, 4 dc on 1st dc, ch 1, 4 dc on last dc, slip st on first knot, 2 ks, sl st on 2d knot, 1 ks, shell on shell, 1 ks, sl st on first knot, 2 ks, sl st on 2d knot, 1 ks, shell on shell, ch 1, dc on dc, ch 2, dc on dc, ch 2, dc on dc, ch 2, dc on 3d st of 6 ch.

Third row—Ch 6, dc on 2d dc, ch 2, dc on dc, ch 2, dc on dc, ch 1, shell, 2 ks, catch, 2 ks, shell, 2 ks, catch, 4 dc on 1st of 4 dc, ch 1, 4 dc between two groups of last row, ch 1, 4 dc on last dc.

Fourth row—Ch 3, 4 dc on 1st dc, ch 1, 4 dc between 1st and 2d groups, ch 1, 4 dc between 2d and 3d groups, ch 1, 4 dc on last dc, catch down to 1st knot, 1 ks, shell, 1 ks, catch, 2 ks, catch, 1 ks, shell, ch 1, dc on dc, ch 2, dc on dc, ch 2, dc on dc, ch 2, dc on 3d st of 6 ch.

Fifth row—Ch 6, dc on 2d dc, ch 2, dc on dc, ch 2, dc on dc, ch 1, shell, 2 ks, catch, 2 ks, shell, 1 ks, 4 dc on 1st dc, ch 1, 4 dc between groups, ch 1, 4 dc between groups, ch 1, 4 dc between groups, ch 1, 4 dc on last dc.

Sixth row—Ch 3, 4 dc between 1st and 2d groups, ch 1, 4 dc between next two groups, ch 1, 4 dc between next two, ch 1, 4 dc between next two, 1 ks (pulled out longer) shell, 1 ks, catch, 2 ks, catch, 1 ks, shell, ch 1, dc on dc, ch 2, dc on dc, ch 2, dc on dc, ch 2, dc on 3d st of 6 ch.

Seventh row—Ch 6, dc on 2d dc, ch 2, dc on dc, ch 2, dc on dc, ch 1, shell, 2 ks, catch, 2 ks, shell, 2 ks, 4 dc between 1st

KNOT-STITCH POINT-LACE

and 2d groups, ch 1, 4 dc between next two groups, ch 1, 4 dc between last 2 groups.

Eighth row—Ch 3, 4 dc between 1st and 2d groups, ch 1, 4 dc between next 2 groups, 2 ks, catch, 1 ks, shell, 1 ks, catch, 2 ks, catch, 1 ks, shell, ch 1, dc on dc, ch 2, dc on dc, ch 2, dc on dc, ch 2, dc on 3d st of 6 ch.

Ninth row—Ch 6, dc on dc, ch 2, dc on dc, ch 2, dc on dc, ch 1, shell, 2 ks, catch, 2 ks, shell, 2 ks, catch, 2 ks, 4 dc between groups.

Tenth row—Ch 3, sc on last dc of 4 dc, 1 ks, catch, 2 ks, catch, 1 ks, shell, 1 ks, catch, 2 ks, catch, 1 ks, shell, ch 1, dc on dc, ch 2, dc on dc, ch 2, dc on dc, ch 2, dc on 3d st of 6 ch.

When the lace is long enough a border of two rows is worked around the point as follows:

First row—This is made by chains of 6, caught wherever necessary to look well.

Second row—Put 1 sc, 10 dc, 1 sc into each loop of 6 ch. JOYCE CAVENDISH.

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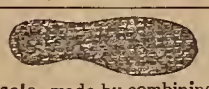
PREVENTS COLD  **OR DAMP FEET**

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New Home Entertainments

HOME education is becoming one of the best features of our national life, and the work of the Chautauqua Circles has been invaluable in making the American family a school. Whatever makes the home happy and its relations more affectionate and sacred, helps the social life that surrounds it, and the community is substantially prosperous that is strong in its homes.

Educational amusements of a higher character than those once popular are a need of the home; for the home evening among working people should be one of rest, joy and loving recreation. Like the child plays of Froebel, the most satisfactory amusements are those that are the most instructive; the kindergarten principle works well in the family life.

—HELEN◈MORTIMER—

Book Parties

AMONG the new recreations for the home that meet the wants of the times is the Book Party. This consists of a reading family, or several families, who hold a meeting once a week, or at stated periods, to rehearse to each other the contents of books that each member has lately read.

Each member of the circle presents the title of a book, new or old, gives an analysis of its contents, perhaps reads a few selections from it as an illustration, and criticizes it and gives his view of its literary value and moral worth.

A general discussion may follow the presentation of this subject matter.

It will be better that the books shall not be presented in a topical way, as, for instance, scientific books on one evening, fiction on another, or travel, art or poetry at stated times. It is more interesting if the analysis is made miscellaneous; there should be variety and contrasts.

Parties of this kind stimulate good reading and educate the mind to an acquaintance with the best thought. The social feature is healthy, and the discussions are sure to be entertaining.

A very pleasant amusement of this order is the play which we may call "Animated Book Titles." A party is given in which each guest is to appear as the representative title of a book, or as a character of a popular and well-known book. A young man who comes with a hoe may represent "Ivanhoe" (I've anhoe). The "dude" who appears in contortions may be "Oliver Twist" (all-of-a-twist). We have seen "Lucille" puzzle a company by being acted as a scene in a shoemaker's shop—Loose Heel.

Such titles as "The Ring and the Book," "We Are Seven," "Never too Late to Mend" (a seamstress), are sufficiently suggestive.

The word Eurydice will admit of carefully prepared classical tableaux. The word may be used as a sentence, as "You-ride-I-see," in a mock dialogue between two persons of fortunate and unfortunate social standing. The conductor of the entertainment may say: "My whole is one word, and represents a character of classical fiction. The whole word will first be acted as a sentence, in the form of a dialogue between a poor debtor, who has to go on foot, and an equestrian, who has just alighted from a fine horse. The second scene will represent the character in tableau."

The second scene will be Orpheus and his lyre—the music may be played on a piano at the door of a darkened room, and an appearance of the shade of Eurydice. She follows Orpheus as he beckons over his shoulder until she comes to a place near the door when he, contrary to the command of the gods, looks around and she vanishes after the manner of the old mythological story, which should be carefully studied by the leader of such an entertainment. The tableau can be made very beautiful.

—HELEN◈MORTIMER—

Question Class

THE Question Class is a very entertaining and educational home amusement. The game consists of presenting the names of obscure places for guessing, and "throwing light" on them by descriptions and history.

For example: "Where is Zagazig?" A long pause. "Shall I throw light?" The one who has given out the word may begin to give the history of the Suez canal.

The geography of obscure names in poems may be used in this way; also obscure names of battle-fields, as Belgrade; and Indian names and their meanings.

An odd question has sometimes been asked at such parties, which is usually difficult to answer, but very stimulating to thought: "Who would you choose to be if you could not be yourself?"

Such games are not only amusing, but educational in their tendency and influence, not only as an agreeable way of acquiring facts, but of developing originality of thought and expression.

Besides these, they tend to make the home attractive and happy, a place of long memories and attractive associations.

A JACK IN THE BASKET

Photo by Will Helwig

"The thoughts of our youth are long, long thoughts."

—HELEN◈MORTIMER—

Home Debating Circles

THE Question Class may have an evolution in the form of Home Debating Circles. The topics discussed may be literary, as, "Which is the more beautiful story, Joseph or Ruth?" "Which is the more beautiful poem, 'Evangeline' or 'Vission of Sir Launfal?'" "What is the most beautiful poem of Tennyson? Of Longfellow? Of Whittier?" "What is the most beautiful poem in all the world, or the most beautiful story in all the world?"

The reading of ballads or parts of stories, with tableaux of the most picturesque scenes, may add novelty and interest to the home readings and literary exercises in home circles.

The poems of Wordsworth, Tennyson and Longfellow are rich in suggestions for impromptu tableaux.

Readings that introduce songs which all may sing are especially pleasing, as are songs in representative costumes.

Readings illustrated by tableaux, music and pictures are among the newest of popular home entertainments. Parlor readings so illustrated have long been growing in favor in New York and Boston. They are now entering home life everywhere, and are among the best and most profitable recreative arts of the time, and improvements upon many of the popular diversions of the past.

—HELEN◈MORTIMER—

A Newspaper Party

THE invitations first suggest the evening's entertainment. They should be printed on paper such as newspapers are printed on and look much like an ordinary proof sheet. If this is impossible, typewritten invitations on this same paper will answer. They may read—

"The Misses Drew request the pleasure of your company at a Newspaper Party, on November sixteenth, at eight o'clock. Please wear a costume made of newspaper."

The decorations should carry out the idea. Paper flowers should be used in profusion; portières fashioned of newspaper may be made more or less elaborate according to the time at the hostess' disposal; copies of rare newspapers, if obtainable, would add interest; any old or valuable book would be appropriate.

Costumes offer a tempting field for the ingenious man or maid. A dunce cap and a long flowing cape, made by fastening many sheets together; a complete robe of newspapers belted at the waist, with a braided flounce of the same, with a broad-brimmed hat made of several thicknesses to give sufficient consistency; coats of every description are a few suggestions for the men.

The girls will find the task an easier one, for an infinite variety of gowns may be made. Flowing skirts and flounced skirts, accordion plaited or box plaited, sailor collars, puffed or flowing sleeves, all these are within the reach of ready fingers. Skirts may be adorned with colored pictures from "Puck" or "Judge" or the colored plates from fashion books. The various sheets may be fastened together with baby ribbon or crape or tissue paper used for trimming. Paper sunbonnets will surely be in order, as well as paper fans. Ruffles galore of plain newspaper or crape paper will add to the costumes. Offer a prize for the best costume.

The evening's entertainment consists in editing an impromptu newspaper. It would be well to elect the various heads of departments early in the evening, thus giving ample opportunity to gather material. These will be a managing editor, a city editor, a cartoonist, an advertising man, a society reporter, a foreign correspondent, a wire correspondent, a page for women (to be managed by an elderly bachelor). These reporters and other newspaper folks will be given a certain time in which to gather their items while the managing editor is putting the material in shape; a most interesting and instructive idea would be to have a practical newspaper man give a practical talk on newspaper work.

The paper, be it understood, is to be dated ten years hence, giving unlimited freedom to the imagination, and paving the way for many clever local "hits." Have the cartoon drawn on a large blackboard. Material will, of course, vary with different companies of young people, but a few general suggestions may be of assistance. The editor may touch upon local, municipal affairs or affairs of state. The advertisements must purport to be from persons present, and this unfortunate reporter may save himself much brain fatigue by soliciting an "ad" from each member of the company. An elderly bachelor may advertise for a housekeeper, "matrimonially inclined," the youngest member present for a competent maid, "fond of children," a girl known to dislike work for "plain sewing or any kind of work;" one who cooks well may advertise for a position, and the noted "swapper" may furnish material under "For Sale or Exchange."

The society page should contain an account of a wedding, using local names, a débutante's reception; or teas or parties of any description. The page for women may give new rules for beautifying the complexion; advice to young housekeepers, the latest fashions, etc.

The foreign correspondent may depose crowned heads, setting up new sovereigns at his own sweet will. Wars and rumors of wars may be treated in a truly blood-and-thunder style. The paper will surely be most enthusiastically received if sufficient care is put into its preparation.

The Puzzler

Everyone Should Be Acquainted with the Country's Lawmakers. The Pictures Below Suggest the Names of Six Congressmen

Answers to Puzzles in the October 15th Issue: King, Bangs, Twain, Abbott, Mulock, Cooper

Sunday Reading

The Christian Opportunity in South America

SECRETARY ROOT'S visit to South America and the Pan-American conference at Rio Janerio have focused attention upon the political and material interests of the great continent that stretches from the Caribbean Sea south to the Atlantic Ocean. An era of development and expansion seems to have been begun. The building of railways and the commercial propaganda will go on more vigorously than ever before. As political conditions become more stable and a better understanding prevails between the different states, men in all parts of the world with money to invest will be alert to the opportunities in the South American continent.

Will the missionary enterprise hereafter be conducted with greater vigor? It will certainly not be the fault of that far-seeing student leader, John R. Mott, if it is not. He was in Rio Janerio, on his homeward trip from South Africa, while the Pan-American Congress was in session, and attended the reception given by the president of the Brazilian republic; was accorded a special interview with Mr. Root and met Minister Griscom and many leaders, both foreign and Brazilian, of the various Christian bodies working in Brazil; and he comes back to this country eager to help make the Christians of North America see that now is the day of opportunity throughout this, "the neglected continent."

Mr. Mott's first interest, naturally, is the Y. M. C. A., which already has branches in three cities, with able young men from this country as secretaries and with growing constituencies; but Mr. Mott is also closely identified with the work his own church (the Methodist Episcopal) is doing in South America, and interested too in that of the Presbyterian, the Church of England and the Protestant Episcopal church of this country. Able men are leading these and other Christian bodies, and they have already much to show for their labors; but only a beginning has been made, and Mr. Mott declares that the 70,000 young men who comprise the student classes of Latin America impress him as more neglected than any other student body of the world, not excepting that of Russia or the Iberian peninsula. "We have come to realize the full force and aptness," says Mr. Mott, "of the designation of South America as the neglected continent. Is it not our solemn duty to atone for generations of neglect?"—The Congregationalist.

◈

Nuggets

THE shouter is often the pouter.

Ease is the disease of the church.

The nigh duties are the high duties.

Profession will not answer for confession.

The lowly places are the holy places.

It is yours to serve; God's to preserve.

Men always sit down before they backslide.

More male Marthas would not hurt a church.

The great fish that is swallowing the Jonahs of to-day is sel-fish-ness.

A high-sounding doctrine is not necessarily a sound doctrine from on high.

A church should be more zealous to lift its people than its steeple to the skies.

Once it was death for a layman to enter the holy of holies; now it is death for him to stay out.—Rev. W. Y. L. Davis.

◈

He is My Shepherd

Out on the mountain wild and high,
Out on the desert wide and dry,
Out on the ocean wild and deep,
He is my shepherd where'er I sleep.

He watches o'er me from day to day,
Keeps my feet from going astray—
Teaching me how each day to pray,
Living beside me all the way.

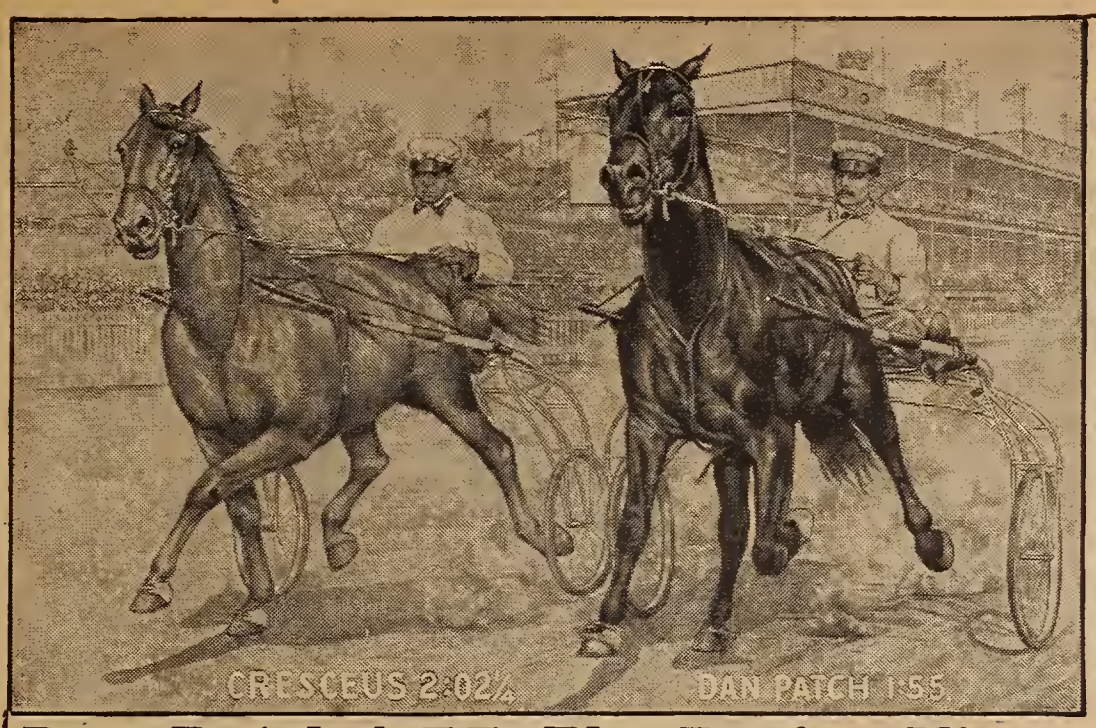
Keeps me clean without, within,
Washes my heart from every sin—
Gives me grace to do his will.
Helping me my place to fill.

Cares for me through every ill,
Helps me up life's steepest hill—
Helping me my joys to share,
Making life a day so fair.

MRS. EDWARD H. NUGENT.

◈

"The Strange Adventures of Helen Mortimer" next issue.



3 FEEDS FOR ONE CENT

My stallions, Dan Patch 1:55, Cresceus 2:02¼, Directum 2:05¼, Arion 2:07¼, Roy Wilkes 2:06½, Buttonwood 2:17 and my one hundred high-class brood mares eat "International Stock Food" every day. Dan Patch has eaten "International Stock Food" every day for over four years and during this time has broken Twelve World Records and his physical condition has been marvelous. It will pay you to use it for your Stallions, Brood Mares, Colts, Race Horses, Show Horses, Carriage or Coach Horses and Work Horses because it gives more Nerve Force, Endurance and Strength. "International Stock Food" is prepared from finely powdered medicinal Roots, Herbs, Seeds and Barks and is fed in tablespoonful amounts as an addition to the regular grain feed. It is equally good and very profitable to use for Horses, Colts, Fattening Cattle, Cows, Calves, Hogs, Pigs, Sheep or Lambs, because it Purifies the Blood, Tones Up and Permanently Strengthens the Entire System, Keeps them Healthy and Greatly Aids Digestion and Assimilation so that each animal obtains more nutrition from all grain eaten. In this way it saves grain and will make you a large extra profit. We have thousands of reliable testimonials on file in our office, and every pound of "International Stock Food" is sold, by over 125,000 dealers, on a "Spot Cash Guarantee" to refund your money if it ever fails. Constantly used by over two million stockmen throughout the world. If you desire any further information I will be pleased to have you write me.

M. W. SAVAGE, Prop. of International Stock Food Co.
International Stock Food Farm.

Dan Patch 1:55, The Pacing King,
Cresceus 2:02¼, The Trotting King,

THIS BEAUTIFUL PICTURE IN 6 BRILLIANT COLORS MAILED TO YOU FREE.

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Second Start, Dubuque, 1:58. Fourth Start, Minnesota State Fair, 1:55.

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WE WANT NAMES.

We want YOU to send us the names and addresses of from ten to twenty-five farmers living in the United States, having a few head of stock (cows, horses, pigs). You can send us the names from any number of different post-offices. If you will send us these names we will send you **TWO BEAUTIFUL COLORED PICTURES FREE.** These pictures are reproductions of the most celebrated paintings in the world, and they are of high quality, and we know that you will be pleased and delighted with them; no pictures will be given for a list of less than ten farmers.

We want to send a sample copy of the RURAL HOME to a lot of farmers who are not now taking our paper, and for that reason we want these names.

Send us immediately a list of at least ten farmers and we will send you, postpaid, **ABSOLUTELY FREE, TWO REPRODUCTIONS OF THE WORLD'S FAMOUS PICTURES,** in beautiful colors, size 15x20 inches. Address THE RURAL HOME, 22 North William St., New York, N. Y.

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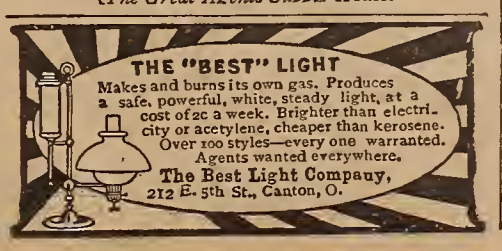

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Good-Style Practical Fashions

By Grace Margaret Gould

No. 853—Wrapper with Tucked Yoke

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, eight and one half yards of material thirty-six inches wide, or seven and one half yards forty-four inches wide

◈

Wrappers and House-Gowns

IT IS at this season of the year that every woman needs a new wrapper, something which she can slip on in the morning in a hurry, and yet feel presentably dressed. For a wrapper that is serviceable no better design can be selected than the one shown on this page in illustration No. 853. The gown is made with full fronts tucked to form a pointed yoke. It has a plain fitted Princess back with inverted plaits in the center below the waist-line. The full sleeves are tucked at the wrists, or they can be made three-quarter length and finished with arm-bands. The ribbons which are inserted at the side seams tie in front. The wrapper is made with a fitted lining.

Wool batiste is a very attractive material for a gown of this sort. It can be

No. 851—Misses' Double-Breasted Coat

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, three and one half yards of material thirty-six inches wide, or two and three fourths yards forty-four inches wide, with seven eighths of a yard of contrasting material for front facing and trimming

bought in pretty colors at thirty-nine cents a yard, thirty-six inches wide. If one wishes cheaper material, there are good-looking outing-flannels, which sell from twelve and one half cents to fifteen cents a yard.

◈

This serviceable coat, No. 851, has also a smart style of its own. It falls loosely back and front. It would be attractive in dark blue serge, with the collar, lapels, cuffs and pocket laps in plaid. A good quality of serge will cost about $1.00 a yard, fifty inches wide. This year there is an inexpensive smooth cloth on the market which comes in a variety of attractive colors. It is sixty-five cents a yard, forty inches wide. This would also do nicely for the coat.

◈

For school wear and for play there is nothing like an apron to make the dress last longer. This good-style apron, No 850,

No. 850—Apron with Round Yoke

Pattern cut for 2, 4, 6 and 8 year sizes. Quantity of material required for medium size, or six years, four and one half yards of material twenty-seven inches wide, or three and one half yards thirty-six inches wide

for a little girl is made with the backs and front full. The neck is finished with a turn-down collar and there is a round yoke. The neck may also be cut low and finished with a frill. The bishop sleeves are finished with a strap cuff, and there are two roomy pockets.

◈

Fashionable Colors and Trimmings

THE woman who had a gray dress last year and who wants to wear it again this year, can do so and not have the slightest feeling that she is behind the times. Gray will be worn very much this fall and winter, but the fashion authorities state that to be strictly new it must be a dark gray, which is known as taupe. It strongly resembles an elephant's ear in color. The most popular shade of the season, however, will be brown—mahogany, nut brown and a golden brown shade. Copper will also be a very good color. The bronze greens are the height of fashion, and the blues which are not too dark, are also in favor.

Dresses and skirt and coat suits, are all much trimmed. It is no longer the vogue, however, to trim a brown suit with black braid. The braid, if possible, should match exactly the color of the gown.

Plaid silks and plaid woolen fabrics are very much the vogue. In the bright shades they look very charming as separate blouses, and gay plaid silk may also be used as pipings or little ruffles for a dark gown, especially when one of the colors of the plaid matches the shade of the dress goods. But whole costumes of plaid silk, when one's wardrobe is not very large, should be avoided.

◈

Little Dress Economies

A LAST year's Eton coat may be made to look like quite another garment by adding a new collar, new shaped revers, cuffs and a very close-fitting girdle belt. Fancy velvet in any of the new subdued shades might be used, or plain cloth braided.

It is wise for every young woman to include in her wardrobe this season a

No. 854—Boy's Blouse Waist

Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, two and one half yards of material twenty-seven inches wide, or two yards thirty-six inches wide

No. 856—Dress with Tab Bertha

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four and one fourth yards of material thirty-six inches wide, or three and one fourth yards forty-four inches wide, with one fourth of a yard of lace for yoke

jumper waist. These waists are not only very much the fashion, but they make it possible for one to go on wearing a lingerie waist that is a trifle the worse for wear. The jumper waist, you know, demands a guimpe, and the lingerie waist may act in this capacity admirably.

The woman who feels she needs two new suits this year, a skirt-and-coat costume and gown, and yet who can only afford one new dress, can straighten out her difficulty this way. She can have her coat suit consisting, say, of a brown cheviot plaited skirt and a tight-fitting cutaway coat or a pony model. Then to wear with this suit she can make or have made, two entirely different waists. One of wash flannel, in cream, showing a brown stripe or printed figure, this to wear for every day.

Then for her other waist she should select either satin messaline in just the same shade of brown as her suit, or brown chiffon cloth, and this waist she can trim so effectively that when her coat is laid aside she will have an attractive costume consisting of the dressy waist matching the cloth skirt in color. Instead of using messaline or chiffon cloth she might have her bodice of velvet, trimmed with elaborate buttons, silk braid the same color, or lace.

◈

Light-weight serge or mohair are about the best materials to choose for gymnasium suits. This suit, No. 855, has a blouse made with a turn-down collar, and cut a trifle low at the neck. It buttons in single-breasted style. The sleeve is three-quarter length, with a turn-back cuff. The full bloomers are plaited at the waist and joined to the waistband.

◈

The finishing touch of the theater costume this autumn is the theater head-dress. Fashionable women will no longer remove

No. 857—Double-Breasted Shirt-Waist

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of material twenty-seven inches wide, or three yards thirty-six inches wide

No. 852—Seven-Gored Skirt

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt, 41 inches in front. Quantity of material required for medium size, or 26 inch waist, six and one half yards of material thirty-six inches wide, or five yards forty-four inches wide, with one yard of material thirty-six inches wide for the bands

their hats at the theater. The fact is, it will not be necessary to do so, as there will be no hats worn to remove. The theater head-dress is the latest, and too much cannot be said in its favor.

Every considerate woman will plan her theater head-dress with a view to the comfort of the man behind. The smaller they are the better. Some are merely made of one ostrich tip caught close to the hair, and fastened to the side with a rose. Others are fashioned of a twist of tulle finished with flower rosettes.

To give a becoming touch to a plain waist, the clever girl is looking with favor on the Princess yoke. It has the effect of being all in one piece, and is among the daintiest of the new dress accessories.

No. 855—Misses' Gymnasium Suit

Pattern cut for 10, 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, six yards of material thirty-six inches wide, or four yards forty-four inches wide

PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the size and number of the pattern desired.

Our fall and winter catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

If you have never made your own clothing and are tired of paying the exorbitant prices charged by the expensive dressmaking establishments, the designs illustrated on this page will be of interest to you. No one, no matter how inexperienced, need have any fear about the fit and success of a dress when made with the aid of the Madison Square Patterns. We employ the highest-priced experts, each an artist in his separate line. Enclose ten cents for each pattern wanted.

THE CROWELL PUBLISHING CO.,
11 E. 24th Street, New York City.

Little Science Stories

The Phonograph

ANY mention of the most remarkable and humanlike invention of the nineteenth century, the phonograph, invariably brings to mind the name of Thomas Alva Edison, the wizard of electricity. But contrary to popular belief, the idea of the phonograph was not conceived in Edison's inquiring and constructive mind. He perfected the machine now in ordinary use, but did not originate it.

To one Leon Scott the latter honor is due. In the year 1855, just prior to the Civil War, and doubtless little thought of during the turbulent times which followed, Scott completed, after long and patient toil, the world's first machine for the recording and reproduction of the sound of the human voice. This machine, from which the phonograph of the present day is evolved, was called the phonautograph. Its construction was not of a complicated nature, consisting simply of an ellipsoidal barrel to which was attached a sound receiver, opened at one end and closed at the other. From the closed end projected a small brass tube, across which a flexible membrane was stretched. To the center of the membrane was fixed a bristle, which served as a stylus and stirred in sympathy with the membrane when set in motion by waves of sound. In front of the membrane was placed a horizontal cylinder, wrapped in a sheet of paper, which was covered with a thin layer of lampblack, against which the bristle rested lightly. Any vibrations of sound which entered the receiver were transmitted by the sensitive membrane to the stylus, which, when the cylinder revolved, described to the lampblack surface a zigzag line. In this way practically a complete phonographic record of the sound vibrations was secured. So much for Scott's invention, which embodied the essential principles upon which the recording and reproducing instruments of to-day are based.

In 1877 Edison took up the work where Scott left off, and by important eliminations and elaborations carried the idea to a successful and practical realization. By substituting a receiving funnel for the ellipsoid, a perfectly rigid metal stylus for the bristle, and a tin-foil cylinder for the lampblack-coated one, the sound vibrations were indented instead of traced. Then, when the machine was reversed, the blunt stylus was forced to travel back over the indentations, and by this method the original sounds were reproduced.

Edison's discovery was hailed as a wonderful scientific triumph, and the applauding public predicted great things for his marvelous machine. It was discovered, however, that after a few repetitions the record of sound was entirely effaced from the tin-foil surface, and the invention proved little more than a novel and entertaining scientific toy.

But Edison had faith in the idea, and continued his experiments during the following ten years, and to such effect that in 1888 a more elaborate but vastly more practical machine was placed on the market. The new machine possessed many marked improvements over the old one. A wax cylinder was substituted for the tin-foil one, and this was slipped over a mandrel, and so constructed that it was made to revolve while the machine was in operation. In talking into the receiving funnel the sound waves caused a malleable glass diaphragm, constructed with a cutting stylus on its under surface, to vibrate and cut vertically into the wax, advancing horizontally as the cylinder revolved. Reproduction of sounds recorded was brought about by the use of another stylus, which was made from sheets of mica. The cutting stylus was made of sapphire, with a cup-shaped front ground to a fine edge. The reproducing stylus had a ball-shaped point which followed the track cut out by the recording stylus. The motion of the machine caused the diaphragm to vibrate, and in this way the recorded sounds were reproduced.

The power for the propulsion of the machine was secured from a small electric motor. The sound thus reproduced was not nearly equal in volume to the original, but was strengthened by means of a funnel attached to the reproducer. The sound could be heightened or reduced by adjusting the speed of the machine. In using the cylinder containing the phonographic record a sharp knife preceded the stylus and removed previous records.

It is estimated that a record once made on the wax cylinder can be reproduced several thousands of times without impairment. The records can be mailed readily, and can be used on any machine. There is no limit to the speed with which sounds can be recorded, or to the number and variety of words. The graphophone possesses the same essential principles of the phonograph, the greatest difference being that it employs a wax-coated cylinder of pasteboard instead of one of all wax.

The X-Rays

AS A RESULT of experiments made in 1874 and 1875, Prof. (now Sir) William Crookes gave to the scientific world what is commonly known as the radiometer, a tiny mill whose vanes rotate with rays of light and heat. The action of this mill, however, depended upon its being placed in a glass bulb almost empty of air. A noticeable fact in connection with experiments made with the Crookes bulb is that when it encloses rubies, bits of phenakite and other suitable objects, and electrical rays are turned upon them, they flash and glow with the most brilliant luster known to art. If excited by a ray from the negative pole of an electrical machine, a Crookes bulb itself shines with a vivid, golden-green ray.

Year by year new wonders were opened up by the Crookes bulb; but it remained for Prof. Philip Lenard, in 1894, to discover its most remarkable power. He found that when the bulb was electrically excited there emerged from it a cathode ray which passed nearly as freely through a thin sheet of aluminum as the summer sunshine through a window-pane.

Professor Hertz had discovered a few years previously that metals in very thin sheets were virtually transparent to his electric waves. This property was found by Professor Lenard to extend to the cathode ray in a greater degree. The discoveries made by Lenard and Hertz attracted the attention of Professor Röntgen, who began to make researches of his own. According to his own account of the discovery, he was working with a Crookes tube covered by a shield of black cardboard. On a bench near at hand lay a piece of platino-cyanide paper. After experimenting for some time by passing a current through the tube, he noticed a peculiar black line traced across the piece of cyanide paper. Such an effect, he reasoned, could be produced only by the passage of light. No light could come from the Crookes tube, which he was using, as the shield which covered it was impervious to any known light, even that of the electric arc. Assuming that the effect must have come from the tube, he set to work to test his theory.

A few moments of experiment assured him that the rays were coming from the tube, producing the peculiar luminescent effect upon the paper, which was removed to greater and greater distances with the same result. Here was a new kind of invisible light, something unknown and unrecorded. Professor Röntgen began to question himself. "Is this light?" he asked. "No." "Is it electricity?" "Not in any known form." "What is it, then?" "I don't know." And with these words the now famous scientist stated all that is known about the essence of these rays.

Having discovered their existence, however, he endeavored to learn what they could do along various lines. He first experimented with a series of cabinet-sized photographs, and found that the rays from the tube passed directly through them with a penetrative power hitherto unknown. They penetrated paper, wood and cloth with ease, and the thickness of the substance made no perceptible difference when held at a reasonable distance.

Photographs of different objects under test were made, and during scientific lectures afterward Professor Röntgen exhibited these for the enlightenment of his audience. One photograph showed a number of laboratory weights in a box, without any indications of the box itself, with the exception of the hinges. A photograph of a compass showed the needle and dial taken through the brass cover.

Reasoning, from the remarkable penetrative power of the rays, that they should penetrate the flesh as well, experiments were made, and proved the calculation correct, as photographs taken of the hand exposed to the rays showed plainly the bones thereof with but slight evidence of the flesh that covered them. This last discovery marked a distinct and invaluable addition to the science of surgery, since by means of the rays dislocations and fractures are readily and fully detected by the surgeon, diseases of the bones are fully studied, and shot, needles and other foreign substances within the muscles of the patient are located with accuracy.

◈

Lithography

TO ALOIS SENEFELDER, a native of Prague, born November, 1771, belongs the honor of discovering the art of lithography. The father of Alois, Peter Senefelder, was one of the performers of the Royal Theater at Munich. He objected very strongly, however, to his son's taking up the same profession, and sent him to the University of Ingolstadt instead.

But Alois, owing to the death of his father shortly afterward, was compelled to give up his studies and look about for some means of acquiring a livelihood. Yielding to old inclinations, he took up acting and authorship, only to meet with poor success. It is to this latter line of endeavor that the discovery of lithography is due.

In order to hasten the publication of his writings, Senefelder spent whole days at a time in the printing-office, and acquainted himself with all the various processes and particulars of printing. It appeared such a simple method to him that he decided to purchase a small printing-press and turn out his own publications, but lack of ready money prevented him.

Necessity, so we are told, is the mother of invention. At any rate, Alois attempted to engrave his own compositions, trying various experiments without success. The purchase of needed additional copper plates was out of the question, and the want of a sufficient number necessitated the tiresome task of grinding and polishing afresh those which had already been used.

One day his attention was directed by accident to a fine slab of Kellheim stone, which he had bought for the purpose of grinding his printing ink. He conceived an idea to utilize this stone for practise in his exercises of writing backward, the ease with which the stone could be ground and polished afresh being the chief inducement. The idea of taking impressions from the stone was brought about in a peculiar way. While he was engaged one day in his task of polishing the stone with a view to continuing his writing exercises, his mother entered the room and asked him to write her a bill for the washerwoman, who was then waiting for the linen. Having no paper or ink near at hand, he wrote the bill upon the slab which he was engaged in polishing. The ink used was composed of wax, soap and lampblack. Some time afterward, when he was about to wipe the writing from the stone, an idea suddenly possessed him to try the effects of aqua fortis on the stone. If the parts written on resisted the chemical action, he reasoned, impressions might be taken in the same manner as from wood engravings. Surrounding the stone with a thick border of wax, he covered its surface with a mixture of one part of aqua fortis and ten parts of water. The result of this novel experiment at the end of five minutes fulfilled Senefelder's most sanguine hopes. On examination he found the writing raised above the surface of the stone about the tenth part of a line. He at once applied the printing ink to the stone, using at first a common printer's ball. Experiment soon proved, however, that a thin piece of board, covered with fine cloth, answered the purpose better, distributing the ink more equally. In this way he was enabled to take satisfactory impressions. He knew at once that he had chanced upon a valuable discovery. The method of printing was entirely new, and he hoped to obtain a patent for it, and probably secure some assistance from the government. This was done, and for years afterward Senefelder continued his experiments, until the art of lithography was not only simplified, but attained a high degree of excellence at his hands.

In recognition of the great service which he had rendered the art of printing and engraving, the King of Bavaria settled a handsome pension on Senefelder, who died in Munich in 1834, honored in his own land, and had the satisfaction of seeing his invention brought to practical perfection.

The greater number of lithographic stones in present use are imported from Germany. An extensive traffic is done in this line in the village of Solenhofen, in the district of Monheim. In its chemical decomposition the Solenhofen stone consists of lime and carbonic acid. It is usually cut in slabs of two to three inches in thickness, and is sold by weight.

Lithographic stones vary in color from a dull gray to a light creamy shade, the gray stones proving the hardest. They are sometimes mottled, having light and dark patches, and in such cases they are suitable for ordinary transfer work only. There are several methods of drawing on these stones, the most common being the chalk method and the pen-and-ink method. Since the invention of photography, artistic lithography, except in the way of color-printing, has been in less demand than formerly.

The Making Over of the Howards

[CONTINUED FROM PAGE 15]

CHAPTER IX.

Doctor Merdith had gone the next morning before Elsie woke. He left directions that she was not to leave her bed until he saw her again.

"But I am perfectly well." Elsie exclaimed with her old impatience.

"I hope so, dear," was Mary's cheerful reply. "Still, I think the doctor is right in saying that this has been an immense drain upon your strength. You must keep still for a short time."

Elsie struggled up to a sitting position. She found herself very weak and dizzy, so much so that she was glad to lie down again. When Alice brought a tempting breakfast tray, Elsie found herself unable to swallow anything but a cup of coffee.

"Perhaps Doctor Merdith was right after all," she admitted.

That afternoon Jerome Dare went to his own home. Flip, who had hastened to Howard Farm on hearing of the accident, accompanied his master and promised Mary that the injured shoulder should have the treatment the doctor had ordered.

On the first day that she was allowed to sit up the subject of Alice's marriage was discussed by the three sisters. Elsie sat in an easy chair by the window, looking out over the fields which were beginning to take on a tinge of softest green under the warm rays of the sun.

The springtime was always a delight to Elsie. As she looked over the pastures and meadows, threaded by the stream which had sunk to its normal size, something of the old passionate joy in life thrilled her heart.

"Oh, I will be so glad to get out into the fields and woods!" she cried. "For a week I have forgotten my work; now it begins to call me."

Mary was at the sewing-machine, again making summer clothes for the Hill children. She looked up to say:

"This will be a busy summer for us all. Alice, from something that I heard Doctor Merdith say last night, I know he desires an early wedding. Have you decided when it is to be?"

"John wants it to be the first of June. He says we have waited long enough."

"I think that he is right," and Mary Howard sighed. "It means a great deal to me, this severing of the sisterly bond that has made our interests one for so many years, but it is right. It is the life that God ordained for men and women."

"But we have all waited so long," Elsie said a little petulantly. "Girls, I have not dreamed, not for years, that any of us would ever marry."

"It will be your turn next, dear," Alice said with the bride-elect's usual desire that others should know, by experience, her own joy. "Now one thing, I would rather that there should be no division of the property. You are to stay on here and use everything."

"Of course we will have a plain understanding about that," Mary said thoughtfully. "I would not like to have the old home divided again and any of it sold."

"It must not be," Elsie cried. "Alice, I am sure you are very happy, but no man I ever saw could tempt me to give up my home. I am a Howard, and at Howard Farm I expect to live and die."

Alice stooped to lay one hand on her sister's dark hair.

"Had it not been for your energetic taking of the affairs of the Howards into your hands, Elsie, this great happiness would have never come to me. I would not have met John, and I would not have regained my health."

Mary smiled, albeit her lips trembled a little. "Elsie, you have succeeded in making over one of the Howards," she said. "Now let us discuss this coming wedding."

A week went by. Elsie had not seen Jerome Dare. She was haunted by a continual sense of obligation regarding what he had done for her.

"I shall feel better when I have made an attempt to thank him," she said to Mary. "Will you not send a note, asking him to come up to supper to-morrow night?"

"I will, providing you will promise to be on your good behavior," said Mary.

"What do you mean, Mary?"

"You know what I mean. Your resentment toward Professor Dare has always seemed to me childish and unreasonable. He is a cultured gentleman and has tried to be a friend to us. It is true that he has met your independent rebuffs in something like the same spirit in which they have been given, but I think you can hardly blame him for that. Now—Elsie, he saved your life, and at the risk of his own"

"I know he did, Mary. If he did not in some way always make me feel—well, crude and faulty! But I will be 'nice' to him this evening, I promise you I will."

[TO BE CONCLUDED NEXT ISSUE]

Of Curious Interest

Spider Lifts a Snake

TO ANYONE unfamiliar with the habits and capabilities of the little spider, its feats of strength are indeed wonderful. Doctor Phin describes among other things, says "Youth Companion," how a spider contrived to lift from the ground a snake that was, of course, many times heavier than itself. The story is of interest chiefly for the scientific explanation which is given of the way in which the thing was done.

Some years ago in a small village in New York State a spider entangled a milk snake in her threads and actually raised it some distance from the ground, in spite of the struggles of the reptile, which was alive.

The spider is furnished with one of the most efficient mechanical implements known to engineers, namely, a strong elastic thread. There are few substances that will support a greater strain than the silk of the spider. Careful experiment has shown that for equal sizes the strength of these fibers exceeds that of common iron; but notwithstanding its strength the spider's thread would be useless as a mechanical power if it were not for its elasticity.

The spider has no blocks or pulleys and therefore cannot cause the thread to divide up and run in different directions, but the elasticity of the thread more than makes up for this.

Let us suppose that a child can lift a six-pound weight one foot high and can do it twenty times a minute. Furnish him with 350 rubber bands, each capable of pulling six pounds through one foot when stretched. Let these bands be attached to a wooden platform on which stands a pair of horses weighing 2,100 pounds, or rather more than a ton.

If, now, the child will go to work and stretch these rubber bands singly, hooking each one up as it is stretched, in less than twenty minutes he will have raised the pair of horses one foot.

The elasticity of the rubber bands enables the child to divide the weight of the horses into 350 pieces of six pounds each, and at the rate of a little less than one every three seconds, he lifts all these several pieces one foot, so that the child easily lifts this enormous weight.

Each spider's thread acts like one of the elastic rubber bands. The spider would have to connect the snake with the point from which it was to be suspended by a sufficient number of threads. By pulling successively on each thread and shortening it a little, the snake might be raised to any height within the capacity of the building in which the work was done.

◈

A Long Service Flagman

WE PRINT herewith a photograph of Mr. Samuel Durner, a crossing flagman in the employ of the Pennsylvania R. R. Co., stationed at Harmans, Maryland.

"Uncle Sam" as he is known by everybody has a unique record. He has worked at the same place for more than nineteen years, and during that time has lost but two days from work. He was sick one

SAMUEL DURNER

day and the other day took a vacation. His hours are from 6 A. M. to 6 P. M., and he works seven days a week. His salary is $33.00 per month. Another unique feature is that he has never had the slightest accident of any kind in his nineteen years of service. L. G. K.

◈

The Why of Things

THE origin and history of certain customs and habits that have been handed down from the long ago have never ceased to be new and interesting to many people. The "Scrap Book" cites a few, and very entertainingly says:

Why are sailor's trousers always made wide at the bottom?

Because, in the course of ordinary small boat duty, a sailor generally goes barefoot, and in making a landing on a beach he grasps his trousers and pulls them up to the thigh, thus landing through the surf with dry clothing. Trousers such as landsmen wear would have to be rolled up, which would cause too much delay.

Why is a woman's allowance called pin-money?

Because, at the beginning of the fifteenth century pins were considered a very acceptable present by women, who, up to that time, had used wooden skewers. Sometimes money was given with or instead of pins, and was called "pin-money."

Why is the fourth hour marked IIII on clock-dials, instead of IV?

Because, when the first clock, resembling those in use to-day, was made by Henry Vick in 1370, for Charles V. of France, surnamed the Wise, the king found fault with the Roman numeral IV. He said it should be IIII. Vick ventured to suggest that the king was mistaken, whereupon Charles roared: "I am never wrong! Take the clock away and correct the mistake at once, on pain of my displeasure." The figure was altered to IIII and has so remained ever since.

Why do we say: "Mind your p's and q's?"

Because in ancient times. behind the door of each ale-house there hung a slate, on which was written, P., which stood for pint, and Q., which stood for quart. A number was placed opposite each customer's name, according to the amount he imbibed. He was not expected to pay until Saturday evening, when he had to "mind his p's and q's."

Why do men wear buttons on their coat-sleeves?

Because Frederick the Great, of Prussia, who was a great admirer of smart uniforms, finding that his soldiers were in the habit of wiping their faces with the sleeves of their coats, ordered that a row of buttons should be placed on the upper side of each, and this broke the habit. The original purpose has been long since forgotten, and the buttons were placed under the sleeves to be out of the way.

Why is thirteen called a baker's dozen?

Because in olden times a baker who gave short weight was subjected to severe penalties, and to be on the safe side he always added an extra roll to the dozen to make up for the possible deficiency in the others, and thus safe-guarded himself.

Why does a dog turn around several times before lying down?

Because in his wild state, the dog lived in jungles, as the wolf and fox do now. Before lying down he turned several times in order to tramp the leaves and grasses down and away from his body and thus secure a flat resting-place. The instinct still survives though there is no reason for the practise.

Why do we always shake hands with the right hand?

Because in the days when the people were not as peaceable as they now are, every man carried a sword or dagger to defend himself. This sword was worn on his left side, where the right hand could quickly grasp it for use in time of peril. When a man wished to show that he was friendly, he extended his right hand, which would be clasped by the other's right hand, if he, too, meant peace. Thus each would be sure that the other would not draw his sword.

Why does a woman "give the mitten" to a man when she refuses him?

Because when women wore half gloves, or mitts, they could withdraw the hand from the grasp of a lover and leave only the glove therein. In this way the unwelcome suitor was made to understand that his attentions were not wanted.

◈

Queer, But Facts

IN the last sixty years the speed of ocean liners has increased from 8½ to 23½ knots an hour.

The most valuable crown in Europe is the Portuguese: but the Austrian, valued at $550,000, is the finest specimen of the goldsmith's art.

The world's births amount to about 37,000,000 every year, 101,370 every day, 4.224 every hour, or one and a fraction every second.

QUEER STUNTS OF FRENCH HORSEMEN

Out of every 100 pounds of paper manufactured in the world, only 6 pounds is made into books.

It takes 5,000 bees to weigh a pound; but when the insects come in fresh from the fields and flowers, laden with honey, they weigh over twice as much.

The pay of Chinese soldier is about five cents a day.

The possession of a boat and fishing-tackle valued at $150 gives a Canadian the right to vote.

At the first meeting of the new high court of Australia, the judges, whose united salaries amount to $50,000 per annum, found that there were no cases to hear, and solemnly dispersed.

Scientists roughly calculate, from the data so far available, that the stars of the Milky Way are situated from 100,000,000 to 200,000,000 times as far away from us as the sun.

The Chinese have a peculiar custom with regard to turtles. They are not used for culinary purposes, but are thrown into the sea at the commencement of a voyage in order to insure good luck.

The French president receives $120,000 a year, and gets, in addition, fruit, vegetables, game, fuel, oil, gas, electric light, and washing free.

Gems in the diadem of the Russian empress are worth $400,000. They comprise 2,536 diamonds and a massive ruby.

The palace of the King of Siam is surrounded by high white walls, which are a mile in circumference. Within them are contained temples, public offices, seraglios, stables for the sacred elephants, accommodation for 1,000 troops, cavalry, artillery, war elephants, an arsenal and a theater.

The great glacier on Mt. Blanc is being used for other purposes than furnishing an occupation to guides and an attraction for tourists. An ice trust has gone into business on an extensive scale of quarrying the clear, hard ice, at an altitude of 4,000 feet. The ice is blown out in great blocks by means of dynamite, after which it is sawed into regular sizes and sent down the mountain sides on a narrow-gage railway.

Mexico has a cactus which grows toothpicks; another, ribbed and thickly set with toothpick spines, which furnishes the natives with combs; there is another cactus, the long curved spines of which resemble fishhooks; there is another which is an almost perfect imitation of a sea urchin; still another resembles a porcupine; there is still another covered with red hair which is nicknamed the "red-headed" cactus.

Probably one of the largest benevolent bequests recorded in any country in modern times has fallen to the lot of Hungary by the will of the late Count A. Karolyi. The Count was 75 years old, and he left no direct descendants. He has also been one of the most enterprising supporters of modern methods of scientific agriculture in Hungary. By his will he bequeathed a sum of $6,000,000 for philanthropic objects.

◈

Horsemanship

FEATS of horsemanship such as leaping hedges and fences are common among fox-hunters and other equestrians, but in France the cavalrymen are taught to jump their horses over carriages, dinner-tables, carts and other curious obstacles. The accompanying view is an excellent snapshot of a cadet at Saumur school, putting his mount over a victoria. The feat was performed without the horse's hoofs touching any portion of the vehicle, although the length of the jump was over ten feet.

◈

Have you ever been to a large market place and seen the vast number of wagons standing side by side with their loads of all kinds of goods for sale? That's what FARM AND FIRESIDE is. Glance through the advertising columns and you will be surprised at the great variety of articles and goods for sale. You may find something that you have been wanting for a long time. If you do, write for it. If you mention FARM AND FIRESIDE we guarantee that you will have prompt and courteous treatment.

◈

No Use for Insurance Company

JACOB HAISH, a Dekalb, Illinois, manufacturer has an odd custom of taking chances against the elements, and some queer things began to happen after he had kept up this practise for nearly half a century.

Mr. Haish owns about one hundred different buildings in the city of Dekalb. He figured it out that the amount of the premiums, were all the buildings insured at usual rates, would amount to considerably more than any loss that would be apt to come along. He became his own insurance company, and for years has never spent a dollar for the protection for which business firms are now spending millions.

Not long since, however, one of his factories was destroyed by fire, and he replaced it with the structure shown in the accompanying picture, and he built one of the tallest smoke-stacks in northern Illinois.

Following the loss of the factory, and after he had rebuilt it, another structure known as the city opera house took fire and burned to the ground, and within a few months lightning struck his smoke-stack with the result shown in the picture.

Despite the fact that all of these losses

LIGHTNING'S WORK ON SMOKE-STACK

followed each other in quick succession, the veteran manufacturer sticks to his insurance custom like a soldier at his gun.

Mr. Haish was one of the inventors of barbed fence wire from the manufacture of which he made a large fortune. He is still looking after his many industrial plants while he is nearly four score years old. He has given a large amount of money to different worthy objects in the town. It is his custom to present to each of his many tenants a good fat turkey on Thanksgiving day. J. L. GRAFF.

◈

Helen Mortimer will be formally introduced to our readers in the November 15th issue. Be sure your subscription is paid up so you will not miss the paper. A beautiful full-page picture in many colors, entitled "The Indian Canoe Girl," will also compose a part of the next issue.

Game Law

C. D., Ohio—The season for shooting squirrel begins September 1st and ends October 15th. That for quail begins Nov. 15th, and closes Dec. 5th.

◈

Laws of Right-of-Way by a Non-User

T. H., Ohio, writes: "In 1880 A. granted to B. a right-of-way over a strip of land to a spring branch, to be used as a water right by B. This strip of land is not now used by B. as a water right nor for any other purpose; nor has it, during the twenty-six years been used by B. A. has exercised ownership over it in so far that no fence has enclosed it or been built around it by B. There is nothing to mark strip of land, except the writing.

B.'s failure to take possession of said strip of land and to use the same, and A.'s continuous use of it and exercise of ownership over it, for the period of twenty-six years, would be considered either as an abandonment by B. or as an acquirement of the same by adverse possession. B. could not now claim the same. Of course, if this has been allowed to continue in this unused way by agreement of parties, then B. would not have lost his right.

◈

Incompatability of Temper as a Ground for Divorce

J. R., New York—There is no state in the Union that gives "incompatability of temper" as one of the causes for divorce. The state of Florida makes "ungovernable temper" a cause. A violent exhibition of temper might in some cases be considered as extreme cruelty and in others might be considered as a cause of neglect, etc. A person in Pennsylvania is required to be a bona fide resident of that state for one year prior to the filing of the petition. It is questionable, under the recent decision of the Supreme Court of the United States how far the New York Courts would recognize a divorce granted in Pennsylvania to a person who had come into that state from New York.

◈

Disposition of Rent

G. W. S., Tennessee, asks: "A married B., second wife, about thirty years ago. Before A. died he made a will giving to B. his real estate during her life, and, after her death, to the children of his first wife. B. rented the place for the year 1906, rent due November 15th. B. died the first of June. Now who gets the rent for the year 1906, B.'s heirs or the present owners of the land."

I am not fully aware of the decisions of the Supreme Court of Tennessee, upon the above question, and those of other states are not uniform thereon. As a general rule growing crops where the life tenant dies belong to the executor or administrator of the life tenant, even though in that manner the remainder man is defeated of the right to at once enter upon possession of his land. If the executor or administrator is entitled to the growing crops, there seems to be no good reason that where the rent is a cash one he would also be entitled to the rent. Some states have passed laws to apportion the rent between the executor or administrator and the tenant in remainder, but there was no such a rule at common law. Therefore, I would answer that the executor or administrator of the life tenant is entitled to collect this rent. To be positive, however, it would be advisable to consult a local attorney.

◈

Ownership of Property

A. B., Ohio, asks: "A bought a farm in Arkansas about 1857, and paid $800 for it. He left it about 1860, and died in 1862. The deed is still in A.'s name. What is the law in Arkansas on real estate in such case?"

It is rather difficult to know just exactly what the querist desires to have answered in the above query. If the taxes have been properly kept up on the property, it would no doubt belong to the legal heirs of A. However, there is very great danger that before this time someone else has acquired title by adverse use, or by purchase of the land at tax sale, and that it would be some trouble for the heirs to get possession of the land at this date.

◈

Effect of Post-Nuptial Contract Upon Dower Rights

T. B., Ohio, inquires: "In 1875 I bought a small farm and paid cash for it. In 1877, I married, but got no property by wife. I lived with her twenty-three years. In 1901 she sued me for divorce, and ran away with another party. I paid her the required $500 alimony, allowed her all goods she owned, and half of all stock and everything. She gave me a quitclaim deed and a post-nuptial contract of all dower rights, or any claims whatsoever, each to do business separate and apart. These claims are all paid. She has been gone five years. She has been trying to get a divorce ever since she left. Can I sell this farm and give a clear title? We have three children, all married. In the event of my death can she hold claim to anything? Two years ago her father died leaving her an heir to a good farm and $3,000 in money. As she has no quitclaim from me, can I hold a third in this money and realty?"

The parties being married, so long as the marriage relation is not dissolved by order of Court, the survivor upon the death of the other will be entitled to the right given by law in the property of such other, unless such right has been released by act of the parties. So in the above case, the husband not having released his right to the propery, if he should survive her, would be entitled to whatever the laws would give a husband in the wife's estate. A husband would have no right in such property unless he survives the wife. As the wife has released all her rights, of course the husband could transfer his property free from any claims on her part, and in the event of his death she would hold no claim.

◈

The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit $1.00, addressed to "Law Department," this office, and get the answer by mail

Title to Property Under Will

E. M., Pennsylvania, asks: Two sisters (widows) own property jointly. The older sister made a will giving all to her sister her lifetime. Whatever is left she gave to the nephew. The older sister died. Two years after the nephew died, willing all he had or expected to have to his wife. The younger sister has lived in the house her whole life, has made all improvements and repairs, and paid the taxes for more than twenty-one years. Could she own the house where they lived by possession? The younger sister died, willing all she had to a niece. Now, does the nephew's wife own half of the house?"

Yes, it seems to me that the nephew's wife would own half of the property. That is, that belonging to the older sister, as that was devised to him by the will of such older sister. The younger sister might possibly have defeated this devise by having disposed of the property during her lifetime, but not having disposed of it during her lifetime it would pass under the will and go to the nephew, and under his will to his wife, the younger sister's share, of course, going to the niece as her will provided. The younger sister could not in such a case have acquired title by adverse possession, as she had a right to be in possession, and the law will presume that she held by that right and not by one adverse.

◈

Tax Title—Meter Rent—Accounting for Real Estate Rent

J. K., West Virginia, wishes to know: "(1) If I pay taxes on property that has turned delinquent and get a quitclaim deed, can person holding the warranty deed claim property? (2) If I burn natural gas by meter at twenty cents a thousand feet, and only burn one thousand (gas company's minimum rate is fifty cents per month) can they collect more than I consume? No contract was made to this effect when gas was piped into my buildings. (3) A. owned seventy-four acres of land and died, leaving it to seven heirs. The oldest heir, holding a mortgage of $250 on said property, has had the renting and charge of said property for ten years, the other heirs not receiving any of the rent in that time. Could that heir collect that mortgage from shares of the other heirs if property was sold?"

(1) It will depend entirely upon the fact whether or not the tax sale has been held according to law. Generally such tax titles are not considered very good, and if the person holding the title by warranty deed would pay all back taxes and improvements put on the property he might recover the same. (2) The gas company could make such rules and regulations as they might see fit, if no contract was made to the contrary. The mere fact that no contract was made when the gas was piped into the building will not prevent them from afterward adopting such rules and regulations as they might see fit. (3) The oldest heir could collect the same, provided he was not barred by the statute of limitations, but the other heirs could require him to account for the rent that was received from the property, and whatever he has received over and above the legal charges, in the way of taxes, repairs, etc., the court would apply upon his claim.

◈

Title to Property—Dower Rights

C. R., Pennsylvania, writes: "Father and son by first wife went into partnership on land that son helped to get, but there is nothing to show that they did. They erected a building in which to do business, and the father deeded half the land on which the building stands to his son. The second wife refused to sign the deed. Can the son hold property for his half interest?"

Yes, the son can hold his half interest in this property, subject, however, to the wife's dower therein should she survive her husband. However, in such a case, if the father gives to the son a warranty deed the son might recover from the father's estate, if he had any, the value of the claim of the wife would be in his half interest which was conveyed to him by his father. It might be possible that upon the father's death the wife would be obliged to take all her interest out of the property remaining in the father's name, if that was sufficient to cover it.

◈

Husband as a Creditor of Wife's Estate

K. P., Pennsylvania, asks: "If the wife dies (she owning the real estate) without a will, the husband having paid out in the past few years several hundred dollars for labor and material to enlarge the house and other improvements, sewer assessments, etc., money earned by him independent of his wife, can he come in the same as other creditors and recover from the estate?"

Unless there was an express egreement between the husband and his wife that he should be reimbursed for the money and labor that he had expended on her property he could not come in as a creditor after her decease. The presumption would be that such money was expended for the mutual benefit of each, and that no claim was to be made for the same. If the claim was so large that there would be no presumption of this kind, then the court might allow it.

◈

Right of Action Against Bank for Wrongful Credit of Deposit

H. P. D., Ohio, says: "March 14, 1906, I deposited $11 in the First National Bank, Elmwood Place, Ohio. The cashier put it in the savings account. A few days later I issued two checks, one for $6 and one for $5. When the $5 check turned up at the bank the cashier marked it savings account and returned it. An attachment was gotten out a few days later against me for the $5 in bank. Can I recover damages for injuring my credit and disgracing me by his not paying the check."

I doubt very much whether the querist would have any right to recover against the bank, as the bank, not having been specifically instructed to which account the deposit was to be credited, would not be charged with negligence if it placed the same to the credit of either deposit. Of course the same would depend somewhat upon the rules of the bank in reference to their various deposits.

◈

Prevention of One Person Talking About Another

L. G., Ohio, says: "I wish to know what steps to take to stop a certain young woman's mouth, as she is in the habit of starting scandalous stories about people? She has just started a false report about my son, who is a good moral young man. The report is of a very damaging nature to his character and entirely false. We have two good witnesses that she told this to."

Unless a person puts in writing or printing, false and scandalous stories about another, there is no criminal offense, that is, they cannot be punished in that way. The only redress is to sue for a recovery of damages. Very often where the parties are without property the law affords very little remedy.

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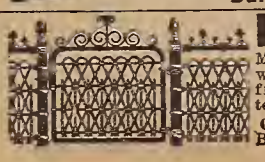

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A Base Hit

SEATED on the grand-stand during an exciting baseball game was an aristocratic individual who, as the game progressed, watched it with ever-growing interest and enthusiasm, emphasizing his satisfaction or otherwise by violently slapping his knee with his hand.

A splendid drive by his favorite batter roused him so much that, standing up, he suddenly brought down his hand on the hat of a gentleman in front with sufficient force to completely flatten it over his eyes, exclaiming as he did so: "Splendid! Splendid! That was a good one!"

"Yes," replied the victim, turning round and ruefully surveying the wreck of his three-dollar derby, "you're quite right, old boy, it was a good one. But—just look at it now!"

With a hearty laugh, in which all around joined, the offender there and then handed over the price of a new hat, with profuse apologies to his good-humored victim.

—HELEN◇MORTIMER—

"Mark" Was Funny

A friend wrote to "Mark Twain," asking his opinion on a certain matter, and received no reply. He waited a few days, and wrote again. His second letter was also ignored. Then he sent a third note, enclosing a sheet of paper and a two-cent stamp. By return mail he received a postal card, on which was the following: "Paper and stamp received. Please send envelope."

—HELEN◇MORTIMER—

Sherman Recognized Him

Upon a certain occasion General Sherman was the guest of honor at a banquet, after which a reception was held. Among the people who filed in to shake hands with him, General Sherman noticed a face that was very familiar, but which he could not place.

"Who are you?" he asked in an apologetic aside, as he welcomed the guest heartily.

The man blushed and murmured behind a deprecatory hand: "Made your shirts, sir."

"Ah, of course," exclaimed the general loudly, and, turning to the receiving committee behind him, he said:

"Gentlemen allow me to present Major Schurtz."

—HELEN◇MORTIMER—

Mike—"How old are you, Pat?"

Pat—"Thirty-sivin next mont'."

Mike—"Yez must be older than that. When were yez born."

Pat—"In 1861."

Mike—"I have yez now. Sure, yez told me the same date tin years ago."

Said Grace by Lot

"My wife and I agree on everything but religion," said Smith the other day. "I don't mean to say that we quarrel over that, for we do not. My folks were strict Methodists, and I was brought up along the lines of that faith, and have never felt like adopting a new one. On the other hand, my wife's folks were Baptists, and my wife was brought up clinging to that religious rock.

"When we were married we agreed to allow each other's religious beliefs to continue as they had been, the result being that we have alternated our attendance between the two denominations. The other day, while I was on my way home for the evening, I chanced to meet my minister. I gave him a cordial invitation to go home with me and have dinner, an invitation that he accepted with pleasure.

"Now it chanced that my wife's minister had been paying a late afternoon visit at my house, and my wife had asked him to stay and take dinner, when he would have a chance to meet me. He accepted and when we arrived we found him in the drawing-room with my wife. I saw at once that my wife was uneasy about something, but it didn't strike me what the matter was until we were taking our seats at the dinner-table, and I noticed my wife biting her lips. Then it dawned upon me that she was unable to solve the problem by asking one of the ministers to say grace without offending the other.

"There was an awkward pause for a moment, and then my little boy who is going on six grasped the situation, and half-rising in his chair, he moved his finger rapidly around the table, reciting at the same time that childish jingle used by children in counting out and going like this:

'Eny mene miny mo,
Catch a nigger by the toe.'

"He ended by pointing his finger at the minister sitting across the table and shouted: 'You're it!'

"The reverend gentleman accepted the decision and said grace, but it lacked the solemnity usually given to it."—Baptist Commonwealth.

—HELEN◇MORTIMER—

"Bridget, you've broken as much china this month as your wages amount to. Now how can we prevent this occurring again?"

"I don't know, mum, unless yez raise me wages."

—HELEN◇MORTIMER—

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It was on a Sunday more than a hundred years ago. The service had been read, the prayers said, the hymns sung, and the parson began his sermon. As he proceeded his gestures became very energetic. He brought his right hand down with great force. Then he turned pale, cleared the pulpit stairs at a bound, dashed out the church door and ran toward the pond a short distance away.

The congregation followed in bewildered pursuit, and saw their venerable pastor with flying robe rush into the water until it came to his neck. Then turning round he faced his astonished audience and said:

"Dearly beloved brethren, I am not crazy, as no doubt many of you think,

Cat—"Now this is something like jam—I wish they would put up more of this kind."

but yesterday at the drug-store I bought a bottle of nitric acid and carelessly left it in my pocket to-day.

"My last gesture broke the bottle. I knew the suffering the acid would cause when it penetrated my clothing, and rushed for the water to save myself pain."

He drew several pieces of glass from his pocket in witness of the tale. Then he dismissed the company and hurried home.—Youth's Companion.

—HELEN◈MORTIMER—

"I'm ashamed of this composition, Charley," said a teacher in one of the local schools this morning. "I shall send for your mother, and show her how bad you are doing."

"Send for her—I don't care," said Charley. "Me mudder wrote it, anyway."—Albany Journal.

—HELEN◈MORTIMER—

For Him Alone

The old negro had put on a clean collar and his best coat, and was walking majestically up and down the street.

"Aren't you working to-day, uncle?" asked one of his acquaintances.

"No, sah; I'se celebratin' my golden weddin', sah."

"You were married fifty years ago to-day?"

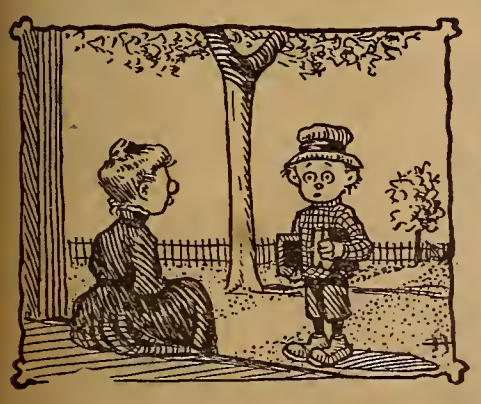
"Yes, sah."

"Well, why isn't your wife helping you to celebrate it?"

"My present wife, sah," replied the old man, with dignity, "ain't got nothin' to do with it. She's de seventh."—People's Magazine.

—HELEN◈MORTIMER—

In a little village there once lived a boy who was supposed to be dull-witted. The men of the village used to find great amusement in offering him the choice between a threepenny bit and a penny, of which he invariably chose the penny.



Aunt—"You'll soon be up to Johnny Jones at school, won't you?"
Nephew—"I should say I would. Why, I can half lick him now."

A stranger one day saw him choose the penny rather than the threepenny bit, and asked him the reason.

"Is it because the penny is larger?" the stranger asked.

"Naw," was the response, "not 'cause it is the biggest. But if I took the threepenny bit they'd soon stop offering it."—The Tatler.

—HELEN◈MORTIMER—

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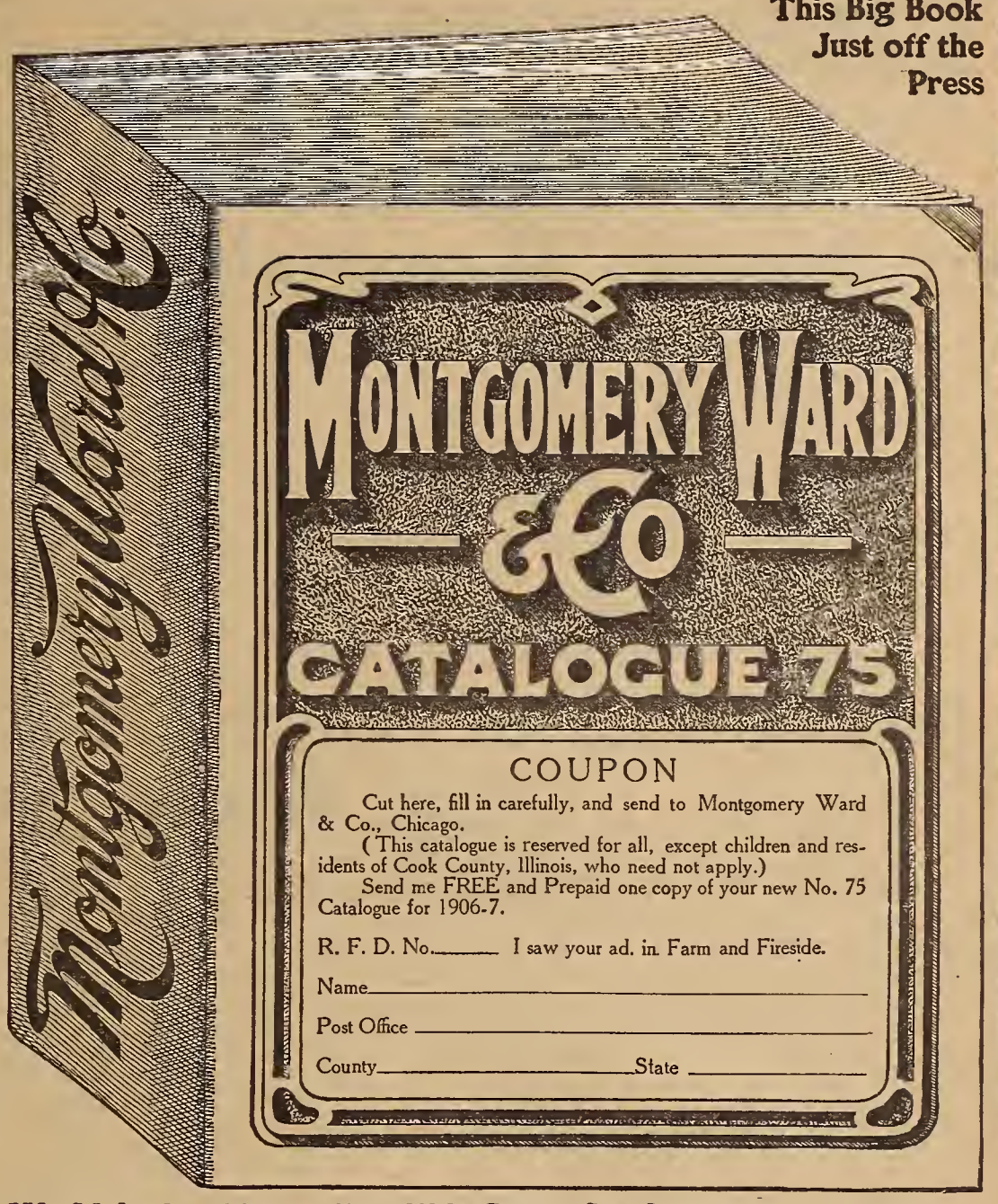

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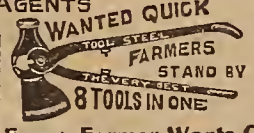

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Special Magazine and Feature Section

Commences November 15th Issue

We have something new for you—eight pages—every issue, brimful of the best Short Stories, Brilliantly Illustrated Feature Articles and Attractive Pages for the Household generally. **You Won't Want to Miss Any of These Supplements.** The November 15th issue will also contain the opening chapters of a "brand spanking new" serial story entitled

The Strange Adventures of Helen Mortimer

By Maude Roosevelt--Of That Celebrated Family

This story will undoubtedly be the biggest treat ever offered our readers. We do not have space to outline this very remarkable story, suffice to say that it is absolutely different from anything in the fiction line that has ever appeared in FARM AND FIRESIDE. The first American publication rights have been secured exclusively by FARM AND FIRESIDE at great expense, and the story will appear in no other publication until after the thrilling, deepening mysteries are all very cleverly unveiled. It's a "rattling good" story. The best serial FARM AND FIRESIDE has ever given to its readers. Now we have given you due notice of its coming, so "get on," and tell your neighbors about it. Don't absorb all the good things yourself. This is going to be a season of plenty with FARM AND FIRESIDE in the story line, and there'll be more than enough to go 'round.

Partial List of Special Features for the Fall and Winter Season

The Farmer in Our Own Country

In a series of illustrated articles that will be printed during the season, commencing in the November 15th issue, we are going to tell you how the farmer lives in *New England,* the great *Southwest,* the *Carolinas,* the *Pacific Northwest, California,* the *Semi-arid Region,* the *Gulf States* and the *Dakotas.* This series will take you right to the farmhouse door, and make plain to you the kind of home he lives in, the crops he grows, the tools he uses, the average size of his family, his problems and how he meets them—all these interesting points, and many others, emphasized with specific examples and special pictures. Every farmer wants to "know what the other fellow is doing." This important series, prepared by some of the best agricultural writers in the United States, will surely tell you.

The Farmer Boy and Girl of To-day

The subject, while often handled in the newspapers and magazines, never ceases to be a vital one, and its treatment is important. The special writer that we engaged to handle this feature has done so in an inimitable style that is going to do a whole lot of good. He will tell you about *The Farmer Boy Who Goes to the City, The Farmer Boy in College and The Farmer Boy in the Army.* He will not only tell you of the many perplexing problems and conditions that are confronted, but how to meet them, avoid them, and overcome them. This will be a series of great value to the young folks of the household, and every parent should see that their boys and girls read and become interested in the different subjects.

Around-the-World Travel Letters

Mr. Frederic J. Haskin, whose letters under the above caption made such a "hit" with our readers last fall and winter, has again been engaged to furnish illustrated special articles covering the subject of rural life in the different countries of the globe. Some of the countries that Mr. Haskin will talk about and picture are Austria, Germany, France, England and Ireland, and in addition he will furnisn two general travel letters. Mr. Haskin's well-known ability along this line, and the great popularity of his illustrated specials last winter insures an eager reception of the coming series. This feature, one of the greatest ever introduced by any agricultural journal, is alone worth more than the price of FARM AND FIRESIDE for one year.

Sketches from American History

Nobody ever ceases to find interest, renewed interest often, in the important and picturesque events of American history. We propose to give to you a number of full-width-page illustrations from the brushes of some of America's best artists, together with clever, entertaining text matter that is bound to please you. Also short, bright, catchy sketches of important events in the lives of men famed in our country's history, the series being arranged so as to cover various walks of life. All these will be of rare historical value to every member of the family.

A Great Serial for Young People

We do not intend to neglect the younger people of the household. They have been our friends always, and it is our intention never to slight them. We have secured a story entitled "Rafe, the Rubber Gatherer," that we will publish in serial form, and which we feel sure will greatly please them. Besides, we will not fail to continue to provide excellent pictures, short stories and games that will make the long winter evenings short. The boys and girls will be well looked after.

A Beautiful Picture in Many Colors

Next Issue Entitled "The Indian Canoe Girl"

Every one of our subscribers, and thousands of others, are more or less familiar with the beautiful picture supplements that were given free last winter by FARM AND FIRESIDE. We propose to do about the same thing this year, except that the pictures this season will far surpass those of last, and will be printed on only one side of the sheet. We do not intend to outline in advance just what the various subjects will be. We want them to surprise you—and we know they will, delightfully. They will not be mailed to any who have not

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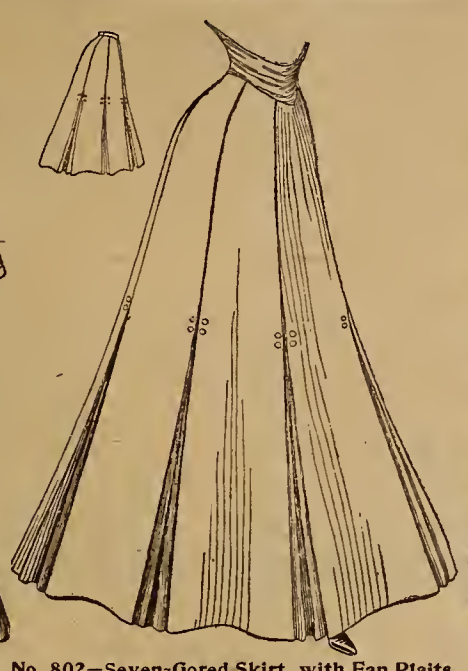

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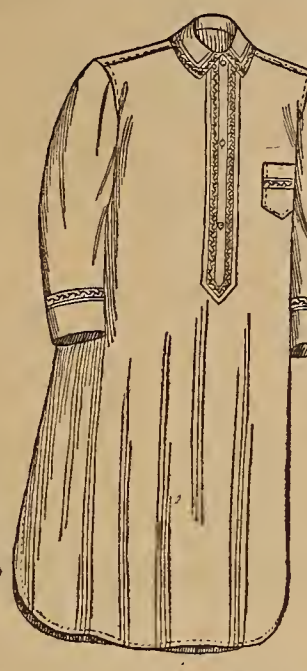

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For other new and up-to-date designs see page 20

Some Facts for Farmers

Scientific agriculture is the cry of the day. It is the most important economic task that awaits the farmers of America. Too many farmers are suspicious of what they rather contemptuously call "book farming." Some of them are conservative to the last degree when it comes to methods of farming. They are inclined to look askance at the "farming trains" and the government "demonstrator" sent out by Uncle Sam to teach the people new "wrinkles" in farming. A little less conservatism and a little more breaking away from the customs and traditions of our forebears in the farming world might be a good thing for the farmer. There is tremendous progress along all other lines of effort. Why not a little more response to the new methods in the farmer's world?

Every thinking man in the country must give a reluctant "That's so" to Dr. Seaman A. Knapp, when he says in a recent issue of the "World's Work:" "Every highway in the country might be made as good as a Roman road, with a free delivery mail-box and a telephone at every crossing, and a box stuffed with newspapers; you might hold a farmer's institute at every third house, and establish an agricultural college on every section of land in the United States, and the flow of young men from the country to the city would not be arrested in the least, so long as the average earning capacity of the average city laborer, or clerk, or professional man is at least fivefold what the same talent can command in the country." Manifestly, then, the thing to do is to increase the earning capacity of the farmer, and our government experimenters stoutly maintain that it can be done. Then let it be done—and quickly.

Did you ever read Mr. F. D. Coburn's book entitled "The Helpful Hen?" It gives some surprising facts regarding the hen and "hen fruit." It proves that the hen is a mighty wealth-producer and worth far more than her "keep." Someone who knows all about it might write an interesting volume on "The Lay of the Hen." But one should know how to make the pesky hen lay before undertaking a volume of this kind. There is a man in New Hampshire, known throughout the state as "Chicken" Hayward, who ought to be "up" on the subject, since he has no less than five thousand hens who have been so well brought up that they are most productive of eggs when eggs are bringing the highest prices in the market. He does not bother rearing chickens from the shell up, but buys hens of laying age. J. L. HARBOUR.

Agricultural News Notes

The leading barley-growing states are California, Minnesota and North Dakota.

Over 1,962,000 pounds of nuts were shipped out of California by rail in 1904.

The banner alfalfa county of Nebraska is that of Buffalo, where 27,307 acres are now grown.

Argentina has thirty-seven sugar factories and one refinery. 147,000 tons of sugar were produced in 1905.

Maryland is said to furnish more canned goods, including oysters, than any other five states in the Union.

The leading honey-producing countries of Europe are Germany, with 20,000 tons; Spain 19,000, and Austria-Hungary, with 18,000 tons.

The exports of butter from the United States have been much greater previous to September 1st this year than during the same date last year.

It is stated that the 1906 onion crop in the vicinity of San Antonio, Texas, required a train over eight miles long to carry the crop to market.

The "Cuban Official Gazette" of June 27th, announced that Shorthorn or Durham cattle can now be admitted free of duty. The pedigree must be shown at the port of entry.

One of the largest ranches in Texas is that of Mrs. M. H. King. It is known as the Lauredo ranch, and contains 170,000 acres. It is valued at $1,000,000. This ranch is nearly as large as the state of Delaware.

In the vicinity of Lawton, Oklahoma, 200 acres of watermelons have been grown this year for the production of seed, the contract price for the same being 12 cents a pound. Much of the juice was used in making syrup. *

Beef Making As a Business

Beef is made very much like any manufactured article. The internal organs of the steer represent the machine and the feed is the raw material. To grow beef the raw material or feed must contain every element of the animal body—but by combining the different grains, fodders, etc. commonly raised on the farm, a perfect ration can be formed—after obtaining the proper ration your ingenuity should be exerted to see that this ration is properly digested and converted into profit.

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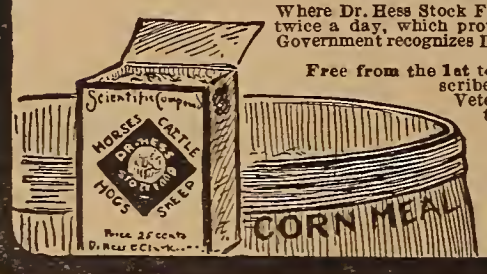

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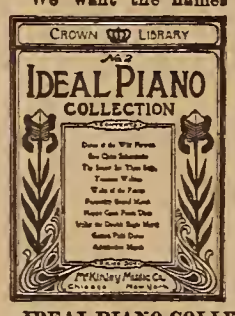

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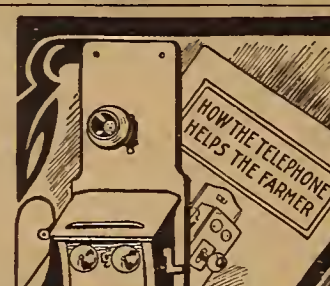

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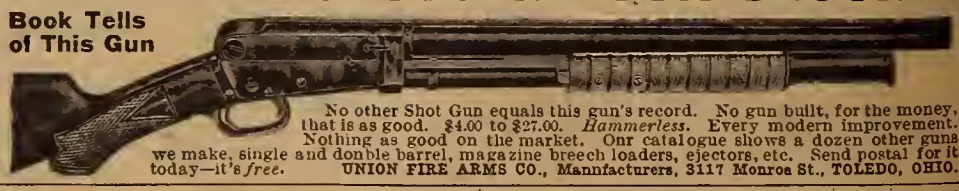

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Vol. XXX. No. 4 — SPRINGFIELD, OHIO, NOVEMBER 15, 1906 — TERMS {25 CENTS A YEAR / 24 NUMBERS

Date Culture in Arizona

By Harry Hurst

SHOWING HOW THE DATES GROW ON THE TREES

As a result of experiments carried on for a number of years by the Agricultural Department of the United States Government, it is authoritatively announced that vast stretches of alkali land in the valleys of southern Arizona and southeastern California can be made to return enormous profits by planting to dates. This land is absolutely worthless for any other purpose, refusing to support even sage-brush and mesquite.

The long, feathery leaves of the date-palm are familiar to winter visitors to Florida and southern California, and doubtless many have taken it for granted that the trees were bearing fruit and perhaps paying handsome dividends. That is far from the truth. The area in the United States where the date will ripen is relatively small compared with that on which the tree flourishes. Date-palms grow as far north as San Francisco, but the climate of nearly all of California is too moist and cool to mature the fruit. The Arabs of Algeria, the home of the date, have a saying that the tree must have its head in fire and its roots in water. This means, of course, that the atmosphere must be intensely hot and dry, but that the ground at the base of the tree must be saturated with water.

The government was led to attempt the growing of dates in this country by the report of a commission sent to Algeria in 1891 to study agricultural conditions. This commission found that the climate and soil of those parts of Algeria devoted to the culture of dates bore a striking similarity to those of southern Arizona. Acting at once upon the suggestion of its agents the government imported a number of young date-palms which were planted at the Phœnix sub-station.

Prior to this time the date-palm in America was regarded merely as an ornamental tree. It was introduced by the mission padres, who planted in the soil of California the seed brought from the Old World. The tree is propagated by seed, or by suckers that spring up from the roots of the parent plant; but it is only from the suckers that the varieties come true. As a rule seedling dates are not edible.

Arab trickery interfered to some extent with the success of the United States Government's first experiment. Date-palms are so valuable in Algeria that these sons of the desert could not resist the temptation to send nearly all male suckers, which can bear no fruit and are only necessary to fertilize the bloom of the female plant. This deceit was not discovered till the trees at Phœnix were old enough to blossom. Fortunately a few were females, and results from these were so encouraging that the government made a number of subsequent importations, the most important of which was in 1900.

In the year last named a strip of strong alkali land was secured at Tempe, nine miles east of Phœnix, and most of the plants were set out there. In time the area of this strip was increased to fifteen acres, all of which is planted to dates. There are about 1,000 trees of nearly 120 different varieties at the Tempe ranch. Some of these have already borne fruit, but a crop of commercial importance cannot be expected from a date-palm under eight years. The date-palm resembles the Baldwin apple, in that it bears only every other year.

OFFICE OF THE PHOENIX SUB-STATION WITH DATE PALMS SURROUNDING IT

On account of their age the date-palms at the Phœnix sub-station have been the ones to demonstrate that date culture in America can be pursued with great profit. Prof. V. A. Clark, of the Phœnix station, is confident that dates are the coming crop for Arizona. Many questions yet remain to be answered, such as the best varieties to raise in this New World's garden, but all are sure to be solved in the near future.

The Deglet Noor is the ordinary date of commerce, and specimens of this variety are to be seen at the Phœnix substation; but unfortunately the season in the Salt River Valley is not long enough to ripen the fruit. In favorable years the Deglet Noor might reach maturity here, but it could not be depended upon. However, other varieties, practically as good, can be raised to perfection in Arizona. One of these is called the Rhars. This date is highly esteemed by the Arabs, and the only reason why it is not as extensively exported as the Deglet Noor is that it is soft and syrupy, and in long shipments will not retain its shape so well. Were it marketed in the country where raised, these objections could not be urged against it. Great quantities of this date are raised by the Arabs for home consumption. It is very prolific and hardy, and its fruit is among the most delicious of dates. The Rhars ripens in November, and in every way is admirably adapted to the climate of Arizona. Some varieties of dates are more susceptible to frost than others. The Rhars stands the cold better than most any other kind.

From one of the trees shown in the accompanying photograph the net yield of marketable dates last year was 375 pounds. Other trees produced ten or more bunches of from 40 to 50 pounds each in the gross; but there was very little waste in these. Fresh dates sell at twenty-five cents a pound in the Phœnix market.

The trees do not require much attention. If a paying crop is expected, they must have water often and in large quantities, but the tree endures drought well. As operations are now conducted, the blossoms are fertilized by hand with the pollen from the male plant. The long stem containing this pollen resembles a stalk of sorghum or broom corn. It is clipped from the male plant and shook lightly over the blossoms of the female. This would not be necessary were the trees set out in large orchards, where a male could be placed at convenient intervals, and the task of carrying the pollen left to the wind. In the large grove at Tempe, and also in a grove at Phœnix containing 500 seedling date-palms, nature will be allowed to do this work.

Very little labor is involved in preparing the ripe fruit for market. There is a popular misapprehension that dates are packed in sugar and undergo a complicated treatment. They are merely picked and put under an open shed for two or three days to dry. Then they are packed in buckets, baskets, boxes or other convenient receptacles being placed in one at a time, side by side and pressed close together with the hand. They are then ready for market.

Care is necessary in plucking the fruit at just the right time. Should a rainy spell of weather come when the dates are

[CONCLUDED ON PAGE 7]

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FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL PUBLISHING CO.

SPRINGFIELD, OHIO

Subscriptions and all editorial letters should be sent to the offices at Springfield, Ohio, and letters for the Editor should be marked "Editor."

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The above rate includes the payment of postage by us. All subscriptions commence with the issue on press when the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post Office Money Orders, Bank Checks or Drafts. *When none of these can be procured,* send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. *Do not send checks on banks in small towns.*

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Always give your post office at the beginning of your letter.

The Beautiful Picture

in this issue will undoubtedly be appreciated by all our people. It was

PAINTED ESPECIALLY FOR

The Crowell Publishing Company by Louis Akin, a celebrated artist.

FARM AND FIRESIDE IS GOING TO BE BETTER THAN EVER

New departments have been added, and we are spending more money than ever to make our paper please you. Something interesting for

EVERYONE IN THE HOME

has always been our aim, but hereafter we shall spend any amount of money needed to make it an ideal farm and home paper.

THAT THRILLING STORY

beginning in this number was secured at a great cost just because we have determined to give our people the best money can buy. Read the first chapters and see if you don't think it is the greatest you ever read. But we want to tell you

SOMETHING CONFIDENTIAL

It is taking so much money to get out this big paper of over 400,000 that we cannot send it to you unless your

SUBSCRIPTION IS PAID IN ADVANCE

So if your time has expired, or is about to expire, send in your renewal at once. It may be that this number will come to some whose time is out; if so, it is because we were too busy to revise the list completely. We are at work overtime getting ready

THAT BIG CHRISTMAS NUMBER

As soon as you read this

LOOK AT THE LABEL

and if you are due us for another year, send the money immediately or you cannot get the special Christmas number. It will be sent only to paid-in-advance subscribers.

ANOTHER FAMOUS PICTURE

"Jack's Christmas Prayer" will be in this number. The drawing for this full-page illustration was made especially for us, and is worth the price of FARM AND FIRESIDE for an entire year—25 cents.

About Advertisements

FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment.

Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

In the next issue "Austria-Hungary" will open a new series of Travel Letters, by Frederic J. Haskin. This series supplements the one published last year that pleased so many of our readers, and they will find Mr. Haskin's letters on European countries of even greater interest than those on the Orient.

◈

In an eloquent speech, Senator Foraker recently made this striking statement:

"I fear less the avarice of greed than the avarice of power."

The people of this country have reason to fear more from brilliant United States senators who represent both the avarice of greed and the avarice of power.

◈

The usefulness of special trains in conducting campaigns of agricultural education has been fully demonstrated, and the plan is being followed again this year.

A "seed-corn gospel train" is now making a tour of Indiana. Investigations by the Purdue Experiment Station show that the stand of corn in Indiana this year is less than three fourths of a perfect stand. The experiment station hopes to demonstrate to the corn-growers how the stand can be readily improved through the proper selection of seed-corn. Progressive farmers do not need to be urged to attend the corn-special meetings.

In October a "chicken school on wheels," the first of its kind, made a successful tour of southeastern Missouri. During the two weeks' trip there were eighteen meetings and forty-nine lectures. Over 4,000 people attended the meetings, and over 15,000 visited the poultry-exhibit cars. The attendance gives some indication of the great interest taken in the work.

◈

Our readers cannot fail to notice the first announcement in this issue of a great coöperative subscription plan. FARM AND FIRESIDE is offered in combination with leading farm papers in various parts of the country.

Many farmers now take several farm papers; everyone should take the best farm paper of his own state or region of country. It will give him agricultural news and practical information suited to his own special needs and special conditions, along lines mainly outside the field of a national farm paper.

FARM AND FIRESIDE does not conflict or compete with the farm papers that are clubbing with it. It is a national farm and family paper that supplements them. Therefore it urges its own subscribers to take other farm papers, and now furnishes them an opportunity to do so at special prices.

◈

Industrial Alcohol

In a bulletin recently issued by the Department of Agriculture, Dr. H. M. Wiley says that the benefits which are to accrue from the use of denaturized alcohol free from tax have probably been overestimated by the public, or, at least, they will not be realized for some time to come. However, he says:

"That material benefit will accrue is not a subject of doubt. These benefits will come, not suddenly, but slowly, as agricultural products become more abundant, technical methods of manufacture are improved, and the methods of utilizing the industrial alcohol are better understood. Our people should not be disappointed should many years elapse before the magnitude of the product used for industrial purposes reaches the figure already attained in Germany and some other European countries."

The most abundant source of alcohol in this country at the present time is Indian corn, but, it is pointed out, at its present price the tax-free alcohol made it would have to be retailed at about forty cents a gallon. This country does not yet grow the cheap, coarse potatoes used in Germany as a source of alcohol, and the average price of American potatoes is too high to make it a competitor of Indian corn. Nevertheless, experiments are being made with by-products of beet sugar, cane sugar and corn-canning factories, and other cheap sources, that promise to give us cheap industrial alcohol much sooner than is indicated in Dr. Wiley's interesting and conservative report.

Free Seed

When the subject comes up at the next session of Congress, not so many members of the House as formerly will have the gall to stand up and claim that they favor the free distribution of common garden seed because their farmer constituents demand it. The fact is farmers everywhere have voiced their opposition to it in unmistakable terms through their various organizations. Their general opinion on this subject is very well expressed in the following resolution unanimously adopted by the Farmers' National Congress:

Resolved: That we are opposed to the system of seed distribution as now conducted by the federal government, but we believe in the work of exploring foreign countries for such seeds and plants as may be profitably introduced into this country, and we recommend that the money expended for seed distribution as now conducted be added to the fund for maintaining seed and plant explorers in other countries, under direction of the United States Department of Agriculture; we recommend the distribution of promising new seeds and plants among the agricultural experiment stations of this country for practical test.

◈

Life Insurance in Indiana

The Indiana Life Insurance Committee recently made an important report to Governor Henly, giving the results of their examination of the business of life insurance companies in Indiana. In brief, the committee found that the expenses of management were generally extravagant, and that the cost of life insurance to the public was excessive.

This is true of the majority of companies; in a nutshell, it is the general condition of affairs in the life-insurance business.

The committee recommends legislation requiring the surplus to be distributed to the policy-holders annually, or credited to them as fixed liabilities, and a law limiting the expenses of management.

As a striking example of excessive charges against the policy-holders under expenses of management, the committee cites the State Life. Although in business only eleven years it has, according to its 1905 report, piled up a fat surplus of $605,000, besides having paid out in illegitimate dividends on special contracts $605,000 more. The pocketbooks of its policy-holders are just that much leaner.

The State Life's "expense of management" is over 43 per cent of its premium income—a rate even more extravagant than that of the great, rocky Prudential.

There is important work before the insurance committee of the Ohio legislature. Ohio has more than one life-insurance company that needs attention, not merely an examination of its reports to the state superintendent of insurance, but a thorough overhauling of all its business methods. In "high-finance" life insurance, Ohio, on a smaller scale, holds her own with New York.

J. C. Barnett.

* * *

Advice to Young Men

ONE thing I would like to indelibly impress upon the minds of the young men is not to fritter away the days of their strength in what is usually termed having a good time. The first and best days of manhood should be devoted to securing a home and a reserve fund. Get these safe, then look about the earth if you are so inclined. Most young men are bent on seeing life, as they term it, as soon as they leave their parents, and a vast majority of them keep at it from force of acquired habit until age creeps on and their ability to win a home is about gone.

Many young men endeavor to guard against the time when infirmities of age overtake them by taking out a life-insurance policy, but thousands of them find themselves at one time or another unable to meet the dues, and they lose all they have put into it. I have always advised young men to do their own saving instead of paying a lot of other men to do it for them. Get into the habit of saving your earnings, and you will be surprised how fast the sum climbs up. Get a thousand dollars together and you are on the high-way to independence. Let the other young men of your age or set have the good time they boast about if they wish, but you go quietly on with your saving and banking, and the day will quickly come when you will be regarded as a business man, while they are still boys, good fellows, but chronically on the brink of penury.

Then how much better a fellow feels when he knows that if any financial upheaval should happen and his services are no longer needed he will not have to wander about in search of any kind of a job and pick up a scrappy living, but can go to his own home and calmly wait until the clouds roll by. Another thing, it is a well-known fact that a man who owns some property can obtain employment much more readily than one who has nothing but his clothes. This is because the property owner is regarded as a responsible party, and one who understands that business is business.

"A. C. C.," who writes from Ohio, should keep in mind the fact that a young man who is working for twenty dollars a month is not expected to drop half dollars, or even quarters into a contribution-box, or into any fund under the management of respectable people. He cannot afford it, and sensible people really think he is silly in his efforts to "keep even" with people whose income may be a hundred or more a week. He should quietly drop in his nickel or dime, with the full assurance that he has done his share.

Replying to "W. R.," Wisconsin, I will say that if he finds it necessary to spend more than half his wages on his "girl," to keep even with the rest of the boys, the sooner he drops the girl the better it will be for him. As I have often said, save your wages and get them to earning money for you as soon as possible. When you get a good fund together, drawing a rate of interest that makes you practically independent, you won't have to feed stock in all sorts of weather all winter, and work from "sun to sun" all summer. It would be better to miss a little of the fun now, to be independent after a while, than to have all the fun now and hard work and poverty when work is doubly hard and poverty biting. I have seen the boys who were boys when I was growing up, and I know who spent their earnings and who saved them, and I see how they stand to-day, and I know that the best advice I can give "W. R.," and all other young men, is to hold onto your dollars now and get them invested where they will earn you good wages.

◈

Parcels-Post

By the time this is published the result of the fall elections will be known, and whether the efforts of farmers and the better element in different congressional districts have been crowned with success. Also whether we have gained anything in the direction of parcels-post. The latest force to be organized against parcels-post is the "Merchants League of America," and, of course, it will comprise about three fourths of the retail merchants of the country, for parcels-post, such as every civilized nation on earth but this has had for years, is the great and awful Boo-Boo of every little storekeeper in the land. This "League" is being built up and fostered by the Express Trust, and is destined to become a formidable obstacle to all progress in the direction of postal reform. The Trust has the money to support a lobby that will see that the Committee on Post-Offices, etc., is properly made up of men who will not let any bill leading toward reform get out of their control. As long as this commitee can keep a bill in their possession congressmen will not have to go on record as opposed to it. The farmers have no money for lobbies, but they have the votes, and they can, if they will, put them where they will send those who oppose this great boon back to the woods where they belong. The Express Trust and their henchmen, the little retail merchants, can rest assured that the people of this great nation are going to have a parcels-post equal or superior to that of any other civilized nation.

Fred Grundy

About Rural Affairs

In Suspense on the Alcohol Question

But for the prospects of having a chance of using alcohol as a clean and safe fuel next year, I would have bought a new oil-stove and some additional gasoline lamps. The general feeling with most of us, however, is that of suspense—swinging between hope and fear, but really much closer to the latter than to the former. The Department of Agriculture talks about making alcohol from green corn-stalks, and from the waste corn-cobs of the corn canneries at cost of 3 cents a gallon. Others who also pretend to know a thing or two, assert that perfectly denaturized alcohol is not likely to be sold at retail for less than 35 or 36 cents a gallon, at least for sometime to come, as the Standard Oil octopus has secured control of the wood alcohol business of the country. Somebody asked the advice of my great and good friend, T. B. Terry, of Ohio, whether he should buy an oil-stove or wait for the arrival of the alcohol stove. Mr. Terry replied that if ever alcohol gets cheap enough to be used as fuel, manufacturers will promptly fit the stove to the fluid. "But that time looks, to us, some ways ahead. I should buy the oil-stove without waiting. Oil is cheaper now, since the Standard Oil Co. is being investigated; in fact, very reasonable in price by the barrel. It will take time to get alcohol made in large quantities. And have you any idea the Standard's millions will not largely control the manufacture of alcohol? Doubtless they are laying the wires and have been for some time. And there are said to be $450,000,000 worth of automobiles in this country. They will probably have the first pull at the alcohol, before farmers will have much chance, as gasoline is much higher than kerosene oil, and the uses for it are increasing rapidly. Some time alcohol may be manufactured in sufficient quantity to bring the price down so it will really compete with oil. Supposing this to occur, then the price of oil would have to come down, too, if there was open competition. So far as I can judge, a good oil-stove will be an entirely safe investment for some time."

Everybody is aware that it took the most strenuous efforts on the part of farmers, farmers' papers and farmers' organizations to influence Congress to make denaturized alcohol tax free. Should all this have been merely a flash in the pan? Have we bought a gold brick? The law was passed for the avowed purpose of giving us a cheap substitute for oil, gasoline and coal, to supply light, heat, power. This general fear that the "Standard millions" will also control the manufacture of alcohol, and exact heavy tribute from every user of alcohol, as they have from every user of oil and gasoline, seems a sad commentary on our boasted liberty and independence—and intelligence.

◈

Agricultural Secrets Worthless

I have paid my $1 for the "secret of the laying hen," and pledged myself not to divulge it. It is probably the same "secret" that another asks $10 for. I paid money for it as an investigator, and without expectation of getting my money's worth except as a matter of information. Although I am bound not to tell by what method the party who sells the "secret" attempts to discover the layers and non-layers, I feel free to quote some references to this subject found in a bulletin recently issued by the Maine Experiment Station as follows: "There are one or two concerns that advertise to teach how to pick out the pullets that are to be good layers, and how to pick out the hens that have laid well. The price for the system is $10 by one of the concerns, with a bond of $1,000 to keep the secret. The warm friends of both systems tried them on some pens of trap-nested birds at the station, with known records, and both parties went away sorrowing at the result of their work. Their systems were unknown to the writer, but it does not matter; for both were completely valueless as applied here. Two others came to show that it was not necessary to use trap-nests. One claimed to be able to tell the laying capacities of the pullets by the position of the pelvic bones; while the other was sure he could tell the yields for the coming year to within eight or ten eggs by the length and shape of the toe-nails. Another was sure that large combs are infallible indications of great egg-laying capacities. There are eighty birds in one yard at the station, each one of which has laid from 200 to 250 eggs in a year. So far as can be discovered, they differ from each other sufficiently to upset any theory of selection thus far put forward. One feature is common to all these hens—they all have strong constitutions."

I can only repeat that I have never yet found a "secret" in agricultural practise that is worth paying $1, let alone paying $10 for. Keep your money, friends, and let the other fellow keep his secret!

◈

The Farmer on Test

By the time this gets into print some of the test cases, of which we have one of the most important in this 34th Congressional District will have been decided. It seems to me, however, that it is the farmer himself who is on test rather than a nominee already weighed in the balance and found wanting. For years the agricultural press has advised the farmer to rise above party considerations and support only such candidates for public office as can be expected to represent and not oppose the farmer's best interests. Men, for instance, who are in favor of honest butter against oleo sold as butter, of the parcels-post and the abolition of the free-seed humbug, and are honest generally. Such advice has been of a general character, and usually ineffective, as party ties have seemed to be extremely strong. Never before, however, has the agricultural press been so unanimous and urgent in pleading for the defeat of an objectionable nominee as for that of Wadsworth. It will soon be seen whether the farmer, being so well advised, can rise to the occasion and defend his birthright with his ballot, or whether he will again tamely submit to the dictates of corrupt party machines, and of those who care much for his vote but nothing for his interests.

The farmer will never have his proper influence upon legislation and political development and secure proper consideration of his legitimate interests until, in or out of party lines, by his vote in party caucuses and elections, he has learned to relegate men of the Wadsworth type to the rear.

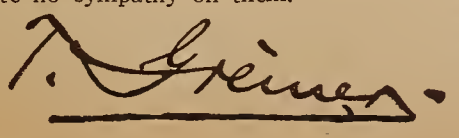
◈

A Waste of Sentiment

This world is full of misery. I do not like to add to it, and try to bring up my children to be kind and gentle and helpful, and to avoid giving pain, even to the lowliest creature. For that reason I discourage in them all sporting proclivities, and am opposed to the free use of firearms. But all that I and every parent in the land can do is only a drop in the bucket. I have at times been greatly incensed when seeing squirrels or other four or two footed marauders rob the nests of innocent birds, or a cat catch and devour a song bird.

Now I have learned to look upon such occurrences more cooly. The murder of innocents is the law of nature. In all creation the big creatures live and fatten on the little ones, and the little ones, in turn, live and fatten on the big ones. To grieve over this natural state of affairs is only a useless waste of sentiment. For every creature that lives to come to maturity, hundreds, often thousands, as in the case of fish, worms, etc., die in infancy to serve as food for the survivors. Birds are killed in the egg, in the nest as fledglings, by the thousands, so that hundreds may grow to breeding age. I will not lie awake nights over these things, nor for fear that this wholesale murder of the birds will cause us to be eaten up by insects. No matter how many birds we may have about us, we will have codling-worms in our apples, lice on our hops, green-worms on our currants and cabbages, and bugs everywhere, and suffer serious damage by their depredations, unless we rely on our own efforts and the use of poisons more than on the help of birds. All this, however, is no reason why we should destroy birds of any kind except when they themselves become seriously destructive to our crops. Even the English sparrow lives during the winter largely on weed seeds. Yet, when some years ago long and severe snowstorms nearly killed out every sparrow, we managed the weeds the following summer just as well as we did before. Self-help is usually most effective help.

Another instance of the extreme cruelty often practised by nature, perhaps only as an incident in the pursuit of other practical results (pollen transfer), is the way in which little flies, wasps, gnats, night-moths, etc., are caught in the honey-baited flowers of the common milkweed. The method is as cruel as the use of sticky fly paper by the prudent housewife. She gets rid of the flies, and although the latter have to die in fearful agony, she will waste no sympathy on them.



Salient Farm Notes

Corn Crop Advice

A man in West Virginia writes that he has a tract of land that is capable of producing seventy-five bushels of corn to the acre, and he is thinking of planting it to that crop next spring, seeding with crimson clover at the last cultivation, and hogging the corn down in the fall. His object, he says, is to secure the largest quantity of feed for the least labor and expense.

If I had the tract in question I would plant corn, as he proposes to do, and seed with crimson clover. But instead of hogging the corn down I would have it cut as early as safe and put into small shocks. As soon as sufficiently cured I would husk it, crib the corn and store the fodder for cow and horse feed. This fodder would pay all the cost of growing and housing the crop, for if it is well taken care of it is almost equal in feeding value to the best timothy hay. I would use the fodder and sell some timothy hay.

For the farmer who lives in the "corn belt," or where the season is long enough to mature corn, it is the most profitable crop he can grow. It yields the largest quantity of food per acre, and when properly fed in connection with materials containing a larger per cent of protein, it is, without a doubt, the most satisfactory stock food known. Cattle feeders, sheep and hog raisers, and the best informed poultrymen are a unit on this point. There will be more corn grown than there is now, partly through increase of yield per acre by better management of the soil, and partly through increased acreage, but feeders and exporters will take all of it, and if the price of corn ever goes down to some of the figures of the days of yore it will be because the bottom of everything has fallen out and there is no demand for anything that grows. I consider it the safest crop one can grow in sections where it does well. It is safe because there always will be a demand for it at prices that are profitable to the grower. For these reasons I would advise the West Virginia gentleman to grow corn instead of the other crops he mentions.

◈

Solving a Farm Problem

A farmer in Nebraska has come to the place in life where many a man meets with problems that are difficult to solve. He is an experienced and successful celery grower, and he inclines toward dairying. He has two sons, seventeen and twenty years old, who are opposed to both of these vocations, and as he will require their help to make a go of either, he is in a quandary what to do. In our family we boys never were consulted in matters of this sort. Father made his own plans, and with our assistance carried them out to success or failure. We were expected to do our share of the work whether we liked it or not. These two boys will soon leave home to look out for themselves, and in making up his plans regarding what he will do their father should not take them into consideration at all. A friend of mine had two sons the same age as these two, and as they became quite restive, and were constantly objecting to his plans and methods, he told them their time was their own and they could strike out for themselves. If they would take hold and help him while at home he would pay them wages, the same as he would have to pay hired men. If he had nothing for them to do they could attend to the feeding and other chores for their board. They were welcome home at any and all times, and if they got sick, home was the place to come at once.

"Well," exclaimed the youngest, "that means that we are invited to get out, does it?" "It means exactly what I have said," replied the father. "When you are a few years older you will understand the matter better. In planning my work I shall not take you into my calculations at all, for I know I cannot count on you." Both departed the following morning to find work. The eldest secured a job in a livery barn, and the younger with a ditching outfit. In two months the latter was at home again, hired to his father for ten dollars a month, board and clothes. He said that he was mighty glad to get back home, and was ready to accept any terms. He stayed at home five years, then took charge of the farm for a share of the crops, his father having become too old to manage it.

In deciding what I would do, if I were in the Nebraska gentleman's place, I would take into consideration my age, strength and ability to carry the plans I had in view to a finish. He is too old to undertake the work of a young man. He probably is too old to experiment with new vocations. He would better limit his field of operations to something he fully understands and be sure of every step he takes. I have seen men fifty and sixty years old start into a business and make a fine success. I remember one nice old man who was led to invest quite largely in a business that was new to him, but which seemed sure of paying well. Unforeseen reverses came, and a rascally partner decamped with all the cash he could borrow in the firm's name, leaving the old man to settle with the creditors. He had a good farm and they seized it. He quietly arranged a meeting with them and agreed to pay each one in full if they would give him a chance. As his integrity was unquestioned they made the necessary arrangements to allow him to settle the debts as fast as he could.

He proceeded to mortgage the farm for three thousand dollars, enough to pay all the bills, and then went back to it and settled down to work to pay off that mortgage. He was then sixty-eight years old, and his wife fifty-eight. They accomplished the task in six years. The following year the wife died. He lived six years longer. It was plain to everyone who knew them that the task was too great for them, and shortened their lives many years. Our Nebraska friend should be careful in what he undertakes, keeping in mind the one fact he will have to rely almost wholly upon himself in carrying out his plans. He should especially avoid going into debt. I am well aware that if one has been doing a considerable business he dislikes to limit his operations while he is feeling well. But when one gets between fifty and sixty years old, and has worked hard all his life, he is soon going to break down more or less, and it is advisable to keep everything well in hand, so that when he is obliged to stop his affairs will be in reasonably fair shape.

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Capons

Replying to Mrs. L. C., Kansas, I must say that I do not know whether it will pay her to try raising capons. I have at different times been very much interested in watching the efforts of others to make it pay. One, a near neighbor, who lives on a large farm, told me four years ago that he was satisfied that capons would be more profitable than any other kind of poultry he could raise. He caponized about a hundred cockerels each year for three years, then gave it up. In reply to my questions he stated that it did not pay. He said they grew all right and made nice-looking capons, while the price he received for them was much higher than for ordinary fowls, but he had to keep them so much longer to "ripen" them to get the best price that there was little left on the profit side. There is no question that capons are fine eating, and that the price seems high, but the fact that none of the sixteen persons, whose efforts to make them pay I watched interestedly, succeeded to their satisfaction, makes me chary about advising anyone to try them. The few experiments I tried quickly convinced me that a man would be a long time in getting rich raising capons. I found the largest profit in selling my cockerels before they crowed. By doing this I saved feed, avoided loss of birds, and made room for my later hatches.

Fred Grundy

* * *

Our people will bestow a great favor upon us by suggesting certain kinds of advertisements that you would like to see which we do not have in Farm and Fireside at present. Is there anything you need which we do not advertise? Let us hear from you. We are endeavoring to make Farm and Fireside a great market place where our people may buy just what they want. We shall try to have things a little cheaper or a little better than you can get elsewhere.

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An advertiser recently wrote to us: "Farm and Fireside is all right." By that he meant he had received many replies from his advertisement in Farm and Fireside. In answering an advertisement, always mention this paper, and you will have prompt attention.

Hunger that Makes Us Poor

"WISH we had that fifty acres that joins our farm on the west. It's got to be sold and probably will go cheap. Good land, too. We need a little more. Don't you suppose we had better try to buy it?"

Wife hesitates a moment before she answers. She does not exactly sympathize with the land-hunger of her husband.

"Don't you think we might better work the land we have a little more thoroughly, husband? Seems to me that would be better than to buy more and not work any of it as it ought to be worked."

Husband winces a little at this home-thrust. He does not just like it to be told thus frankly that he does not "farm it" as thoroughly as he might; but he knows his wife loves him and has the best good of all at heart, so he takes it patiently, and they discuss the matter in its pros and cons.

"You know you are not quite as strong as you used to be, either. Let's not get too much on our hands, husband."

There seems to be in the heart of most of us a longing for a little more land. No matter how much or how little we have, it seems to us if we only had that fifty acres over the line we could make it pay better than the man does who owns it now. The best land and the most profitable land, the land that will surely make us happiest is the land we do not possess.

Now, I like the drift of that wife's argument first rate. Better farming and less of it is what we as American farmers sorely need. You can go out over the country in any direction you will and find farms that are not half cultivated. In fact, very few farms are under as good a state of cultivation as they might and should be. Do you know of any farm in your neighborhood that has not some land that might not be called waste? Grown up to weeds or brush, or from some other reason lying idle, the owner gets very little value received from it.

And yet the owner of every such farm has an ambition, either unuttered or expressed in one way or another, to get hold of a little more land. The result is that as a people we are not making the progress toward the best agriculture that we might if we were content to till the land we do own the best we can.

There is this other side to the matter. The more land we have the more help we must hire and the harder we will need to work ourselves to make it pay. Help is scarce and hard to find. Men who are really desirable from every standpoint are as scarce as the traditional hen's teeth. This is a fact we all must admit. Wages are high. And after paying taxes, hiring help and other necessary expenses the profit is not enough larger to pay.

Let us follow the matter still farther. Few men are really a success as managers of large farms. Sounds harsh, does it not? And yet it is a fact. It takes a peculiar line of executive ability to keep a large farm moving properly. Men must be kept at work. Stock must be looked after personally. Ends must be tucked up everywhere; and where is the man that can do it for any great length of time without breaking down? "Then whose shall all these things be?" Is it worth while to get a few hundred dollars more in the bank for the sake of losing one's health?

So this is a common-sense way of looking at it, it seems to me: Better own what land you can take care of yourself comfortably than to strain every nerve to get more and not have any of it well cared for, and lose your health in the end.

This world is something more than a place to get money in. In truth, that is the last thing we ought to have in mind, for it certainly is the poorest motive of all. Money in the bank never made any man happy, in and of itself. Life is more than owning five hundred acres of land more or less.

Close this meditation with a picture or two. In the first, let us look at a great farm—great in the sense of size. From morning to night all, father, mother and young folks are on the keen scoot. No time to think, to sit down, or really live. Things must be kept moving. Kept moving. That is the sole ambition in life. Kept moving for the sake of the dollars we hope to have in store by and by. Kept moving, no matter at what cost. Kept moving, till we make the last move and go down to the little cemetery where everybody is resting so quietly.

"He was a hustler," somebody says, and that might well be the epitaph.

The other picture is this: A comfortable farm home. Not too much land. Father and the boys do all the work themselves. If they want a day off, they hitch up and take it. Time to think and read, to whistle and sing. To cultivate each other's acquaintance, as well as to cultivate the soil. To get the best there is in the soil. In short, time to really live. That is my picture of the ideal farmer's home.

Edgard D. Emmert.

Farmers' Correspondence Club

The Tile Ditch

When I was a boy my father constructed a large and deep open ditch across the end of an eighty, to carry swamp water into a small stream, and thus prevent it from coursing diagonally across the tract. It fell near a north line, where the timber-land joined the cleared portion of the farm, and I had a good opportunity to study the action of the water at times of saturation.

First, I observed, with boyish interest, the many little springs that appeared in the region of the hard-pan. There I noted how much better the corn grew for a rod or two from that fence than further back in the field.

Later we cut a ditch at the south end of the farm, and I remember how tenaciously the blue, or slate-colored clay stuck to the spade as we tried to handle it. It was of about the consistency of putty, and a plow would hardly go through it at all. This ditch we covered with oaken slabs, and it was a real "blind" ditch; called so before clay tiling was invented.

Here another study was opened up to me, and out of the two observations I derived a theory I have never since given over: Soil relieved of saturation is better, both as a vegetable feeder and as a thing to be handled.

The plow cut through that same stratum; and, instead of resembling putty, it turned over as mellow as any soil on the farm. And it lost its blue clay appearance, assuming the color of good soil.

So, a few years later, when I took a course in Organic Chemistry I was able to see the value of under-draining, although the subject widened and lengthened very materially. When my teacher said land should be relieved of saturation, I was able to see two good reasons for the statement. And I received with interest the further statements the professor offered: That the deeper the ditch the wider the area it would drain; that water run off in an open ditch carries off all the fertility it has in solution; that this fertility is left in the soil as the water makes its way through to the outlet; and, as air enters the spaces left vacant by the removal of the liquid, the soil naturally becomes friable. So the tile ditch is nature's own assistant in the processes of soil action.

It is a well-known principle of physics that evaporation is a cooling process. That is all there is in the use of a fan. The air that feels so cool to the face is not cooler than what already touches the face, but air in motion snatches away the moisture of our perspiration and the coolness is in the skin. So, a wind, be it even a very warm one, cools the soil by increasing the evaporation. In more direct phrase, when water is obliged to leave the soil by evaporation it leaves very slowly, and it produces a chilly condition of the soil very unfavorable to vegetable growth. The ditch which relieves the saturation is a means of warmth. Indeed, there are two sources of heat that are rendered available by drainage. The direct impact of the sun and the admission of the atmosphere. When the sun shines upon saturated ground the evaporation is so great as to carry off, in the latent state, most of this heat; and the air cannot penetrate at all until the water is out of the way. So the fairest of drying circumstances are contributory to cooling the soil. The same, with a soil under-drained, would contribute to the warming so much desired.

Again, I learned in the class that germination will not take place except in the air. This accounts for the fact that grain planted in the saturated soil fails to come up; or, as we say, rots in the hill. If the ground be properly under-drained there will never be entire saturation; for, as soon as the point of saturation is reached the water makes for the outlet, and is drained away.

It is important to know when the ditch is properly made.

1. It must have a sufficient amount of fall. The requirement at this point is not great, for water will flow readily over a fall of a half inch to the rod; or one foot to four hundred linear feet. The main point is to have no up grade in the water's course.

2. The size of the tile is important. If too small, the friction will retard the flow, and the tile will be filled with mud. A three-inch pipe will do if the fall is great and the flow somewhat constant. But it is far better to put in from six-inch capacity upward. Six-inch tile will convey a large quantity of water. And an eight-inch tile will convey about twice as much. What it lacks in capacity it makes up in freedom from friction. Capacities are to each other as the squares of their like dimensions. The square of six is thirty-six, and the square of eight is sixty-four. So the eight-inch pipe is but eight square inches less than two six-inch pipes in point of capacity, and almost double the friction is encountered in the two.

One more important matter is the depth at which the tile is laid. Experience has shown that the scope affected increases in width much faster than the ditch increases in depth. A ditch two feet below the surface will drain about a rod on each side, while one laid a foot deeper draws off the water from a distance of six rods on either side.

Moreover, the water that enters a tile near the surface, say eighteen inches or less, will carry in with it a portion of the fertility it holds in solution. In percolating through two to four feet of mixed soil, it parts with all vegetable elements. Clay, particularly, is a fine absorber of ammonia, and sand will catch and retain vegetable fibers that may be floating in the water.

Rain and snow bring down ammonia from the atmosphere, which will quickly return thither by evaporation if the water remains on the surface. Hence, the capillary action of desaturated soil is a matter of importance. And again the tile ditch serves indirectly as a fertilizer. Ammonia is known to be a fruitful source of nitrogen, and nitrogen is said to determine the relative value of our standard grain and vegetable foods.

Finally, let it be understood that swamp land is not the only land that a tile ditch benefits. It helps the ridges by carrying off surplus water beneath the surface, and so inducing rainfalls to sink instead of running off and carrying the surface soil with it. It helps clay soils in that they are very compact, and saturation renders them heavy and cold. Clay loses much by shedding the rainfall from the surface. Where friable, the clay soils are the very best; but in a state of saturation they are not to be worked. The plow and harrow act as the kneading apparatus of the brick-maker. Clods large and hard, and a general surface like the public road will be the result of all attempts to cultivate saturated clay.

WALTER S. SMITH.

Destruction of Wire-Worms

Probably there is no insect enemy of farm and garden crops which in the course of the year inflicts more serious injury than the familiar wire-worm. It seems to be present in all soils, although fortunately in varying numbers, and being less scrupulous than most kindred enemies in its tastes, nearly all crops seem to come alike to it. The actual amount of damage that it inflicts fluctuates largely, according to the season, and the consequent speed with which the plants develop beyond the stages at which they are susceptible to its attentions; but practically in all seasons and in all soils it claims a certain proportion of the fertile seeds.

It therefore would be a matter of the utmost importance to arable farmers and market gardeners if an effectual and practical remedy for the wire-worm pest could be discovered. Much attention has been devoted to the subject by both scientific and practical experts, but, although various schemes have been suggested, it has to be admitted that even the most successful up to the present are to be accounted only as palliatives, and not as absolutely reliable remedies. Perhaps the most beneficial of the systems hitherto advocated has been that of applying dressings of rape cake, which acts indirectly in that it serves to divert the attentions of the insect from the plants, and not as a specific insecticide. This system, though strongly recommended, has not been generally adopted, nor are farmers willing to accept it as the best form of treatment that science can suggest. In fact, rather than have recourse to the use of the rape-cake remedy, many farmers prefer to apply dressings of quick-acting manures, with the object of forcing the plants through the delicate stages as rapidly as possible. The chief drawback to this latter method is that it is seldom of much effect in seasons when it is most wanted, that is, in dry weather, and when the progress of vegetation is naturally slow. Moisture is necessary to the assimilation of all fertilizing material and in its absence even the quickest acting are of little avail.

A new treatment which has been tried involves the use of bisulphid of carbon. This material was first of all utilized in flower beds and borders, and it proved thoroughly effectual, and it is interesting to notice that its success on a small scale has been fully confirmed on more extensive areas and against other injurious insects, such as the vine phylloscera, and and the cabbage-maggot. It is explained that the character of the soil determines the rate at which the fumes diffuse through it. On heavy clay soils, especially if they be in a very wet state, diffusion is slow, while it is most rapid on sandy porous soils, and if these be too dry at the time of the treatment, the diffusion may be so rapid that the insects within range are not long enough exposed to the vapor to be killed.

The following directions are for the benefit of those who may be inclined to use bisulphid of carbon as a remedy against wire-worm: (1) The soil must not be too wet nor too dry at the time of use, and after applying it there should be no cultural operations for a week at the very least; longer would be better. (2) The treatment should be in line; that is, whenever the plants are known to be attacked, not when they are dying off. (6) Make a hole with a stick, beginning three or four inches from the plant, and passing down in an oblique direction till a point is reached rather below the root. (4) Pour in a teaspoonful of bisulphid of carbon for each plant treated, and quickly stamp the soil in over the hole, and press down. (5) The material must not touch the roots; the liquid will harm the plant, but the vapor is harmless. The plants treated will be quite free from any poisonous properties, and thoroughly wholesome, and if the pest be checked in time, one application should suffice.

W. R. GILBERT.

Cotton-Seed for Human Food

Developments in the packing-house investigations have had a far-reaching effect in advancing the cotton-seed interests of the South. Cotton-seed-oil companies are running whole-page advertisements in the leading Southern daily papers, and it will be only a short time before they get into the standard farm journals and magazines. The boom will be pushed for all it is worth, and this is a great thing. There are thousands of families that have been using cooking fats made largely of cotton-seed oil, and they have always been well satisfied with results. Now that the meat business has been put before the public in a bad light, it is reasonable to suppose that cotton-seed-oil products will be in great demand.

State Chemist McCandless, of Georgia, has gone into the matter in detail, and furnishes an exhaustive report on the value of cotton-seed for human food. His investigations present an encouraging view of the matter. There is no better oil for human food than that obtained from cotton-seed, and the people can do no better than use it to a certain extent everywhere. The Southern people are supposed to be in greater sympathy than any others with this move, but the effect it will have on the hog industry can scarcely be noticed. It will mean an increased use of such foods.

Besides being valuable as an oil, the cotton-seed meal promises to develop into some prominence in the way of bread-making itself. The meal when mixed with corn-meal or flour is valuable as a food of surpassing richness, and in the end may be considered a great addition to the list of foods good for man. It may be that someone will put the cotton-seed-meal food on the market and become a millionaire before anyone knows just what they are eating. Such has been the case with many of the so-called breakfast-foods, only they are hardly ever as good as cotton-seed meal.

A few years ago I wrote an exhaustive article on the value of cotton-seed, and at that time I said the day might not be far away when the farmers would be growing cotton mostly for the seed. At that time cotton was low in price and seed was high, but it seems as if cotton-seed is still alongside of cotton, so far as value is concerned. J. C. MCAULIFFE.

Review of the Farm Press

The Growing Demand for Alfalfa Hay

THE following from the "Rural New-Yorker" illustrates the increasing demand for alfalfa hay wherever it has become known on the market:

A few years ago it was hard to sell a ton of alfalfa hay in Syracuse, N. Y. The soil around that city is well adapted to the afalfa crop, and farmers kept on growing it. When they found how useful it was they were sorry to let it leave the farm. Livery-stable keepers learned of its value in feeding horses, and began to buy it. Dairymen in distant sections who read of its value, but could not start the crop, began to order it. Now, in addition to what is sold in local markets, and the immense amount consumed on the farms, about two hundred car-loads of baled alfalfa are shipped annually from this district. This hay goes in large bales and nets $17 a ton. Much more of it could be sold. We speak of this to show how the demand for this excellent hay grows. Think of raising two tons of timothy compared with four tons of alfalfa!

Live Stock Management

In giving some sound advice on farm management, in the "Kansas Farmer," Prof. A. M. Ten Eyck says:

Sufficient live stock should be kept on every farm to consume the roughage and some of the grain produced on the farm. This is not only necessary in order to maintain the fertility of the soil, but it is necessary in order that farming may be profitably carried on.

A general farmer should raise well-bred stock, but not necessarily pure bred. In fact, he can hardly afford to raise pure-bred cattle, sheep and hogs for the block, or pure-bred horses to work in the field at the present market value of pure-bred animals.

The breeding of pure-bred stock is the work of the specialist. The general farmer should purchase and use pure-bred sires in his flocks and herds, and should breed his mares only to the best stallions, but he cannot afford to keep a one-thousand-dollar team of pure-bred mares as work-horses, even though they may raise colts each year, when a three-hundred-dollar span of horses or mules will do the work, and good grade mares will raise colts when bred to pure-bred stallions which, as a rule, will bring the average farmer as much money in the horse market as though they were pure bred.

True, if the plan of breeding only from pure-bred sires is practised long, the animals on the farm become practically pure bred, and it should be the aim of every stock raiser to ultimately secure such a herd or flock.

It pays to give the best of care to well-bred stock. The scrub is usually kept at a loss anyway, and it may not make so much difference financially what care the scrub receives, but with money invested in well-bred stock, which is capable of returning a good interest on the investment with proper feed and handling, neglect becomes costly.

It is not possible here to discuss methods of breeding, feeding, handling, and marketing the several classes of live stock. For such information the reader must consult the writings of authorities on that subject.

The Babcock Test for Farmers' Use

In the "National Stockman and Farmer," L. W. Lightly gives some pointers about farmers using a milk tester. He says:

It is to be regretted that so few farmers use the milk tester, but in fact very few own and use this valuable little dairy implement. Of course everybody has a scale, and if he doubts someone's weighing he uses the scale to determine the matter. He has a bushel, half-bushel, peck, quart and yardstick to measure with, and uses them. But in to-day's marketing when you sell milk by the pound or quart that is really not the final basic unit, because man has found it so easy to extend the quarts or pounds by adding aqua pura. The man who buys our milk weighs or measures it, but its real value and the money we are to get for it are finally determined by the Babcock test. This is true if we sell at the creamery, cheese factory or in the city milk market. Again we ask, "Why does not the farmer get and use this important measuring device?" It costs no more than a good accurate scale, so that is no serious hindrance.

"I can't operate a Babcock test." That's what they tell me, and yet they are using a number of machines on their farms that are much more complicated and more difficult to operate.

Buy your machine from a reliable dealer and you will get all the needed accurate glassware and full directions for operating. Buy from your druggist some sulphuric acid, specific gravity 1.82, then take your sample of milk and do some testing, following directions. You had considerable trouble at first operating your grain or corn binder or your combined corn plow, but a little persistence made you master of the situation, and the same will be true of the tester. I had infinitely more trouble making my grass mower work than I ever had testing ordinary whole milk.

Leaves as Fertilizer

Leaves are nature's fertilizer. Someone, in speaking of the importance and usefulness of leaves, said that they were the lungs of the trees and plants. It is certain that vegetation is fed, nourished and sustained by the elements contained in the atmosphere as well as by those in the soil. Therefore the leaves of each tree or plant possess the elements obtained from the air and earth particularly adapted to the sustaining and nourishing of its own peculiar life.

How often have we heard the expression, "I dislike autumn, for the leaves are falling—they are dying." To some the fall of the year brings unpleasant memories, as probably this is the season of the year when their loved ones passed away; but the falling of the leaves should not be a sad sight, but a gladsome one; because they are simply passing from one state of usefulness to that of another. They are doubly useful; they protect the roots from the severe cold and the injury of the frequent freezing and thawing of the ground, and while thus employed they are decomposing, and the rich properties that they gathered from the air and soil enters into the earth and is absorbed by the roots, and thus leaves live again.

Tobacco leaves pulverized and sprinkled on the top of the soil of potted plants not only furnish food for the plants, but are also a preventive against those little white worms which are so troublesome and destructive to plants. Everyone who cultivates house plants knows that in order to keep the plants growing and blooming nicely the seed pods should be removed as soon as the flowers fade, and the leaves removed as soon as they begin to die or turn yellow. Instead of throwing these pods and leaves away, as is the usual practise, press them into the soil containing the plant from which they have been removed. Plants treated in this way seldom need to have their soil replenished.—G. E. E. in the Indiana Farmer.

Gang Plows

In the "Practical Farmer" Mr. T. B. Terry tells some of the advantages of using gang plows as follows:

In large fields of reasonably clean, level land a gang plow can certainly do as much as two single ones and save one driver. That is no small matter, with help as scarce and high-priced as it is now. The gang plows are entirely practical now and will do good work. I have seen them at work time after time in the West. And I have personal friends, and good farmers they are, too, who tell me they wouldn't think of using any other kind of plow. There are quite a few of our Eastern and Southern readers who could use gang plows to advantage. At present such plows are almost unknown in these sections. By all means get a riding plow. What is the use of walking with four good, strong horses in front? Save yourself when you can so easily. You can practically rest while the horses are working, and then have ample strength to take good care of them when the day's work is over, as well as to hustle around to get started in season in the morning. If you walked all day you wouldn't feel much like pushing things morning and night and cleaning the horses properly. Let them save you; then you take good care of them. And this is important if a hired man drives them, too. Save him, when you can, and he will take better care of the horses and look out more for your interests. And it will be easier for you to get good help and keep them. You can buy a left-hand plow as well as a right-hand one, if you care to. It is simply a matter of what you have been accustomed to. Now, there are many different makes of gang plows. Probably any of them will do good work. They are hardly in an experimental stage any longer. They have been in use long enough to be quite well perfected. The most important matter, seems to me, is to buy a plow made by a solid, well-established firm.

Let us study into this matter a little, friends. Suppose you have forty acres of plowing to do in a season. Two men walking, each with a team and plow, will do as well if they average three acres plowed in a day, taking sod and stubble land together. Put one good man on a gang plow, driving the four horses, and he ought easily to turn the forty acres in ten days, if the field is reasonably long. He will naturally be more willing to push the horses a little, than he will when it means more tramping for himself. Even most farm owners will find it the same way. Now, good hands are easily worth $1.50 a day here, including board, for good weather. Put these prices on the above figures and see how it comes out. With the two walking plows it will cost for labor to turn the forty acres, about $40. It will take about thirteen days at $3 a day. If you pay a man $20 to $25 a month this won't be far from right. You cannot board him and stand rainy days and make it much less. If one man does the plowing with a gang plow in ten days the cost will be $15; $25 saved. That will pay interest on the extra cost of gang plow and for extra storage and leave a nice margin of profit. Then if you get to harrowing as economically as you plow, there will be more profit. And as you plow in less time there will be more for working the land, an important matter. Some of our Western friends will smile at the low estimate of four acres a day turned with a gang of two plows. They do more. The figures given are quite conservative. But we do not wish to lead anyone into buying a gang plow who hasn't enough land to make it worth while, and land in suitable condition.

Moss on Fruit Trees

The "Pacific Rural Press" concisely tells how to get rid of moss on fruit trees as follows:

Moss can be cleaned from fruit trees by spraying during the dormant season with concentrated lye, one pound to six gallons of water. This gives a clean bark, not only making the trees look better, but contributing to their thrift by destroying the parasite growth which renders the bark hard and brittle.

The Dairy Game

Have an understanding with the cow. Start with the settled fact that she is a dairy cow and worth while. Tell her you and she are going to have a game, and that you are going to play according to Hoyle—or Hoard,—which means the same in dairy playing—and that it is the rule of the dairy game that both players share in the gain, the cow gets the honor and the other player the profit. But from start to finish the play must be fair. Impress upon this cow, before the cards are cut, that the play is to be on honor. Convince her that you mean to take no advantages, that you are going to be liberal in putting up good and abundant feed, reasonable care, comfort, cleanliness, pure air, sunshine and skill and that she is to do the rest. If she can't do it, the time to let the fact be known is before the game opens.

Art is too long and time too fleeting and the very best dairy profits too small for a man to go into a game with a rip of a cow that is going to pay under the game, going to renig.

Tell the cow you are willing to show her and help and encourage her up to the limit of the rules of the game.

But, also, my dear boy, as I look over your shoulder and say "M-m-m" over the hand you hold, allow me to suggest that having made sure of your partner be as sure that you are sure of yourself. Are you as well read up as your cow must be fed up?

"To let the new light in, we know,
Desire must ope the portal."

Are you well supplied with this new light, and have you strained it through several thicknesses of sterilized fabric of horse sense? There are microbes and things even in the "teachings," some of which may be profitably put through as crude a test as a coal riddle, so that the finer mesh of the final straining need not be so clogged.

If sure of both players you may go on with the game, and success be with the game, and success be with you!

Does luck count? Not a bit of it. There may be such a thing as luck in many games, but in the one of dairying it is ability in the cow and ability in her owner—owner ability that stands for knowledge, skill, liberality, patience, industry, self-denial, alertness, willingness to study and learn, gentleness, self-dependence, faith, hope and charity.

Proceed with the game. May I close with a yarn? Old, perhaps, but apropos.

The sermon was ended and the minister said, in a proper voice.

"Will Deacon Brown lead us in prayer?"

Deacon Brown was manifestly asleep and did not hear.

Then said the preacher, a little louder: "Deacon Brown will now lead us in prayer."

Still the Deacon slept.

Then the preacher, quite loud: "We will now have prayer, will Deacon Brown lead!"

Deacon Brown started up just in time to catch the last words, and looking around, said—"Is it my lead? I thought I dealt."—W. F. McSparran in Hoard's Dairyman.

Cement Floors in Cribs

In "Wallaces' Farmer," Mr. S. Schrantz gives his experience with cement floors in corn-cribs as follows:

In the fall of 1903 I built a double crib, 30x60 feet, with concrete floors under the cribs and driveway. The outside is sided up tight with shiplap, and the cribs are ten feet wide. It was filled that fall with corn after the floors were down only two weeks, and without extra ventilators. The corn was shelled out in January, except one thousand bushels reserved for feed, and none was spoiled. In 1904 the crib was again filled and shelled out early in winter, except enough for feed. Late in the next May two neighbors, who had to replant and could get no seed, came, and in four hours selected enough good corn from what was left to replant two hundred acres for one and forty acres for the other. It grew well, but the first man got his corn almost too thick, and the other raised eighty-five bushels to the acre on clover sod. The crib was filled again last fall and is still full, but I am sure the corn has kept perfectly.

In building, I advise raising the floors above the level of the ground. Fill in eighteen inches with the scraper and the teams will tramp it down well. Then on this tamp about six inches of sand or cinders and then put on four inches of concrete, mixed one part cement to seven of gravel. Tamp down well and put on the finish coat. This gives good drainage, and the corn will keep whether the crib is closed or open on the sides.

Date Culture in Arizona

[CONTINUED FROM PAGE 1]

ripening, they are likely to rot on the tree. The fruit hangs in long strings, falling from a stalk that grows from the base of the tree's crown of foliage. The strings are more or less bunched, as shown in the illustration, and when the dates are gathered the stalk is cut so as to save them all together like bananas.

It is expected that the grove of 500 seedling six-year-old date-palms at the Phœnix station, which has been previously mentioned, will develop some interesting facts bearing on date culture. An important discovery led to the planting of this grove. Among the bearing trees of the first importation is one of the variety Hamrara, the fruit of which ripens about the first week in December—a trifle late for this locality. A seed from this tree was planted on one of the irrigating ditches, and in time became a bearing tree, the fruit of which is in all essentials the same as that of the parent tree, but with the important difference that it ripens in October.

From this horticulturists are led to think that the seeds of some of the leading varieties might come practically true and the fruit ripen earlier than that from which they were taken. Thus a new variety might be originated and improved which would be more suitable to conditions here than any of the Old World kinds. The trees in this grove are just beginning to bear.

Up-to-date ranchers and fruit growers in Arizona are deeply interested in the subject of date culture, and many are experimenting on their own account. Results with them have been equally as encouraging as those achieved by the government.

Gardening

Celery Growing

An Ohio reader writes that he owns a farm of 80 acres, the soil being a black loam or muck which he thinks may be all right for celery. He knows nothing about its culture, and asks for information.

There are many farms in the United States—and in fact whole sections—where the soil is admirably adapted to celery growing. They are mostly tracts of black loam, mold or muck, naturally quite fertile, and in some cases well drained, or in other cases need tile draining. Whether it will pay to go into the celery business on a large scale, depends much on the market facilities and, of course, on the skill of the grower. The man who knows nothing about growing the crop, or who lives at some distance from a good market or shipping point, is at a disadvantage from the very beginning. Good celery, however, is always in demand, and brings fairly remunerative prices. It is only a question of producing it and bringing it to a good market. The proper thing to do in a case like this is to make a trial on a small scale, and then expand operations as the circumstances may warrant. Begin with an infant industry and let it make a natural and healthy growth. It will need some equipment, too.

For early celery (and this is usually what pays best), greenhouse or hotbed facilities are required. The plants must be started from seed under glass, say about March 1st, in flats, and they may then be transplanted into other flats, one and one half to two inches apart each way, and kept in cold frames to make plants large enough for transplanting to open ground in May. To grow good plants of this kind is not a difficult task for the expert gardener.

Persons knowing nothing about celery may have some difficulty in this undertaking; but if one fails to grow his plants, or plants that he thinks are good enough, he may buy them from a commercial plant grower. They can always be had at $3 or $4 per thousand. I grow plants more cheaply by starting them in flats in rows, and then at once transfer them in sections cut out of the flat into a sort of nursery row in open ground just as soon in spring as the ground will work properly. I thus avoid handling the plants singly, and by the end of May or early in June I have rows of plants, 30 to 50 to the running foot, large enough for transplanting or for sale. I can always sell all I have to spare, and usually charge 25 cents per hundred for them. When one has good plants and good celery soil it is easy enough to grow good celery. But anyone who has had no experience with the crop, and desires to make a business of it, should first of all study all the books and pamphlets on modern methods in celery growing that he can get hold of.

◈

Michigan Melon

Several readers have asked me for seed of the melon which I mentioned in these columns a month or more ago, and which, for want of the right name, I called the Michigan melon. I have only what seed I want to use next year. I am not a seedsman, and the Welsh onion is the only seed of which I have more than a house supply. To those who live near me, I will gladly sell vegetables from my surplus during the season, and give you information free gratis, but I don't want you to send me money for seeds. Your regular seedsman will furnish them to you. As for the Michigan melon, I will try to find out its true name and give it in these columns. It is really the finest melon I ever saw or tasted. In the meantime you may be satisfied with the Emerald Gem and the Gold Coin, which are of very high quality, and very satisfactory all around.

◈

Late Vegetables

The garden has provided us this present season with an unusually prolonged supply of good things. Killing frosts were much delayed. We had fine tomatoes fresh from the gardens until the middle of October, and likewise some very fine melons. The Emerald Gem had all ripened by about October 1st. But we had some most delicious Gold Coin from the patch, even after a light frost had killed the vines. All our melons were of exceptionally fine quality this year, owing probably to the fact that the vines were but little affected by blight. We can still gather good eggplants from the patch; but we have gathered and stored up quite a supply of them and have them on the table every few days. They are just as delicious as ever. Owing to the frequent and heavy rains during the past few weeks, the late cabbages, which promised to be an entire failure only a few weeks ago, have come on beautifully, and we have as large and fine Sureheads as ever. and some fairly good Mammoth Red Rock and Danish Ballheads. The latter are tiptop for sale, but rather coarse for home use. We prefer the Sureheads.

◈

Planting Asparagus

A reader, some time during June last, asked me whether it was then too late to set out asparagus plants, or what is considered the best time for doing that work. I might say that any time when you have good plants, and soil that is in workable shape, will do for setting asparagus. It might be done in the fall, but I would try to do it early enough so that the plants will have a chance to get well established in their new quarters before the final freeze-up. The usual, and I believe, on the whole, best time for doing this job is in early spring, and the sooner after the land gets to be in good working condition the better. Neither commercial nor home grower need ever be afraid of planting too large a patch of asparagus. What the family does not want or need, will find ready sale at remunerative prices. There are very few things that could be planted on a little piece of warm and rich ground which will bring in as much money and clear profit as does asparagus. We used to hear the cry of overproduction; yet the demand for this most appetizing and wholesome of all vegetables has been steadily increasing from year to year, and there does not seem to be the least danger of overproduction.

◈

Commission Merchants' Addresses

I am asked by readers to give addresses of responsible commission merchants in St. Paul, Minn., and Chicago, Ill. It would not be difficult to get such addresses. Many of the dealers advertise regularly. But I do not propose to shoulder any responsibility of thus advertising them. If they advertise in the Farm and Fireside, the publishers become in a large measure responsible for them, as the latter announce their willingness to make good any loss caused to subscribers by the ads of fraudulent advertisers, if claim is made within a reasonable length of time. Commission merchants in the larger cities who can stand the searchlight of Farm and Fireside's investigation, I believe would find it to their advantage to have a standing ad in these columns.

◈

June Pink Tomato

For my first early tomatoes I still grow the Earliana and its strains, like No. 10., McKay and Maule's Earliest. The Pink June, however, has had one trial on my grounds, and deserves another. L. F. B., of Binghamton, N. Y., writes: "I consider the June Pink the best of all new early tomato, tested. It is as early as Earliana, holding out larger and more uniform to the end of season. It proved an extra good bearer on rich ground this wet season."

◈

Commission Dealings

When we grow any kind of produce, especially fruits, such as apples, pears, peaches, strawberries, etc., on a large scale, we are often obliged to make use of the services of commission dealers. If we are careful and select honest and responsible firms, we will usually come out all right, and get all that is coming to us. There are some sharks in the business, and we must try to steer clear of them. Beware of the men who promise too much. If you make large shipments, and are not too far from the city, it is a good plan to follow such a shipment up and see what the dealer does with it. I have shipped onions, and eggplants and berries, and tomatoes and apples and pears and various other things, also poultry, at various times. and usually managed to get approximately what these things should have realized simply by calling frequently at the store. But when I grow garden stuff in a smaller way, and have the chance to sell most of my produce at retail to people who come after it, or order it, or buy it from the wagon, I find it much more profitable and satisfactory. It is a local question, however. Without the home demand, I would have to ship a lot of fresh vegetables to Buffalo. I like to raise just the vegetables and fruits that I can sell right at home.

T. Greiner.

Fruit Growing

An Interesting Bulletin on Orchard Culture

The Ohio Experiment Station has published an interesting bulletin on the subject of different methods of orchard culture. The object of the experiments, which are given, was to show the comparative value of different methods of cultivation. It included cultivation in the following ways:

No. 1, With cover crop. No. 2, Clean culture. No. 3, Sod-culture. No. 4, Sod-mulch.

The experiment has been running six years.

The cover-crop method is said to be safe, practical and excellent while the orchard is young and where the ground is level or nearly so, or on steep hillsides where the soil does not wash readily by flooding rains. For this method of culture Mammoth, Crimson and Medium Red clover, also winter vetch and cow-peas do well. Soy-beans do well even in northern Ohio, and are generally conceded to be superior to cow-peas for a cover crop. A combination of oats and Canada field-peas also makes a good winter covering for the soil. It is customary to sow the cow-peas and soy-beans in drills two feet apart, at the rate of three pecks to one bushel an acre; the young plants are then cultivated once or twice to give them a vigorous start. A mixture of rye and vetch is sometimes sown broadcast among the cow-peas and soy-beans just after the last cultivation in autumn. This combination affords a dense carpeting during the winter, and makes an early heavy growth the following spring by the time the ground should be plowed again. The trees in this plot made a satisfactory growth.

The clean-culture plot had a hard time of it, as the soil washed badly, and it was necessary to seed it down after four seasons' trial, as many tons of soil had been swept away by the rains, and the roots of the trees were exposed in many places.

Under the sod-culture method the trees were planted out in generous holes directly in the sod, and the area of the ground for three or four feet in diameter was spaded about each tree, and these spaces have annually been kept clean and mellow. The grass in this orchard was cut and allowed to lie where it fell. No fertility was added to the space about the trees, which space has been enlarged as the trees grew to correspond to a diameter equal to the head of the trees. In this plot the trees made only a fair growth.

It is a most expensive and laborious way of growing orchard trees, but may be used to good advantage upon very rough or stony areas where mulching material is not available.

Under the sod-mulch method the trees were planted in the sod, much as in the sod-culture method. The stems of the trees were enclosed with fine-meshed wire-screen cylinders, to prevent injury by mice or other rodents. The grass was also mowed three or four times each year, but instead of allowing it to lie where it fell, as under the sod-culture method, it was raked up and used to maintain the mulch about the trees. The results in this orchard were very satisfactory. In fact it gave the best results of any method of cultivation tried, and the trees made an extremely satisfactory growth. It was thought that there might be more danger of injury from borers and other insects owing to the mulch about the trees affording them good protection. but this did not seem to be the case. and no more injury was noticed in this plot from insects than in those that were not mulched.

It has been frequently claimed that under the sod-culture method the tendency was for apple trees to produce their roots near the surface of the ground, but it was found in these experiments that the root systems of the apple trees grown under the different methods of culture were at a surprisingly uniform depth, the greater portion of the roots, both large and small, having remained in the upper six inches of soil. The fibrous or feeding-root system of an apple tree under annual plowing and clean culture with cover crops, practically renews itself annually, pushing up thousands of fibrous rootlets to the surface of the soil. Apparently but few of these rootlets go into the lower, more compact colder soil. The partial or even total destruction of these surface-feeding roots, which occurs during the hotter and drier months of summer and during the cold months of winter, does not cause the tree to suffer in the least, and there was found to be an immense network of rootlets occupying not only the upper two inches of soil, but also the four inches below. The conclusions from this fact are, that there can be little danger in changing from a heavy mulching to a clean-culture or cover-crop plan.

◈

Bitter Rot

S. H. North River, Virginia—Bitter-rot is a fungous disease that spreads rapidly during the latter part of summer. It winters over in diseased fruit and also on the branches of the trees, where it causes what are known as canker spots in the bark, from which it spreads in the spring. It is probable that insects play an important role in spreading this disease. It is not especially troublesome in cool seasons, but in hot, moist weather will start quickly, and sometimes destroy the entire crop of certain varieties, provided the fungus is present. On the other hand an outbreak may start in warm weather and a few cool days will almost completely check it.

There is a wide range of variation in the liability of different varieties of apples to this disease. In Virginia the Newtown Pippin is especially susceptible. The following conclusions as to the best method of fighting this disease are given in a recent bulletin of the U. S. Department of Agriculture:

1. Bitter-rot can be completely controlled by proper applications of Bordeaux mixture, 93.3 to 98.9 per cent of sound fruit having been saved by such treatment in these experiments, while the checks rotted completely.

2. Four applications, when made just at the right time, are sufficient to control the disease satisfactorily, but in order to be sure of covering the infection periods one or two additional applications being necessary.

3. The applications should be made at intervals of two weeks, beginning about six weeks after the trees bloom.

4. It is neccessary to spray the trees thoroughly, coating the fruit on all sides with fine mist-like applications.

5. Other diseases, such as scab, leaf-spot, and sooty-blotch, may be controlled in connection with the treatment of bitter-rot.

For the treatment of bitter-rot alone spray the trees thoroughly with Bordeaux mixture at intervals of two weeks until five applications have been made, beginning not later than forty days after the petals have fallen (in Virginia usually about June 10th to 15th).

For the combined treatment of apple-scab and bitter-rot, spray the trees with Bordeaux mixture (1) just before they bloom (but after the cluster buds have opened and exposed the flower buds); (2) as soon as the petals fall; (3) a week or ten days later; (4) about forty to fifty days after the shedding of the petals, and at intervals of two weeks thereafter until, in all, seven or eight applications have been made.

◈

Cause of Blight

A. C. M., Grandville, Illinois—I think you have found out one of the causes of blight on apple and pear trees, but this is not what is commonly known as fire-blight—which is the trouble we generally refer to when we say blight. The insect to which you refer is probably what is known as the bud-moth which bores into the wood near the bud. I wish, however, you would send on a specimen for examination, and I will report on it further.

◈

Pecan Growing—Chestnuts

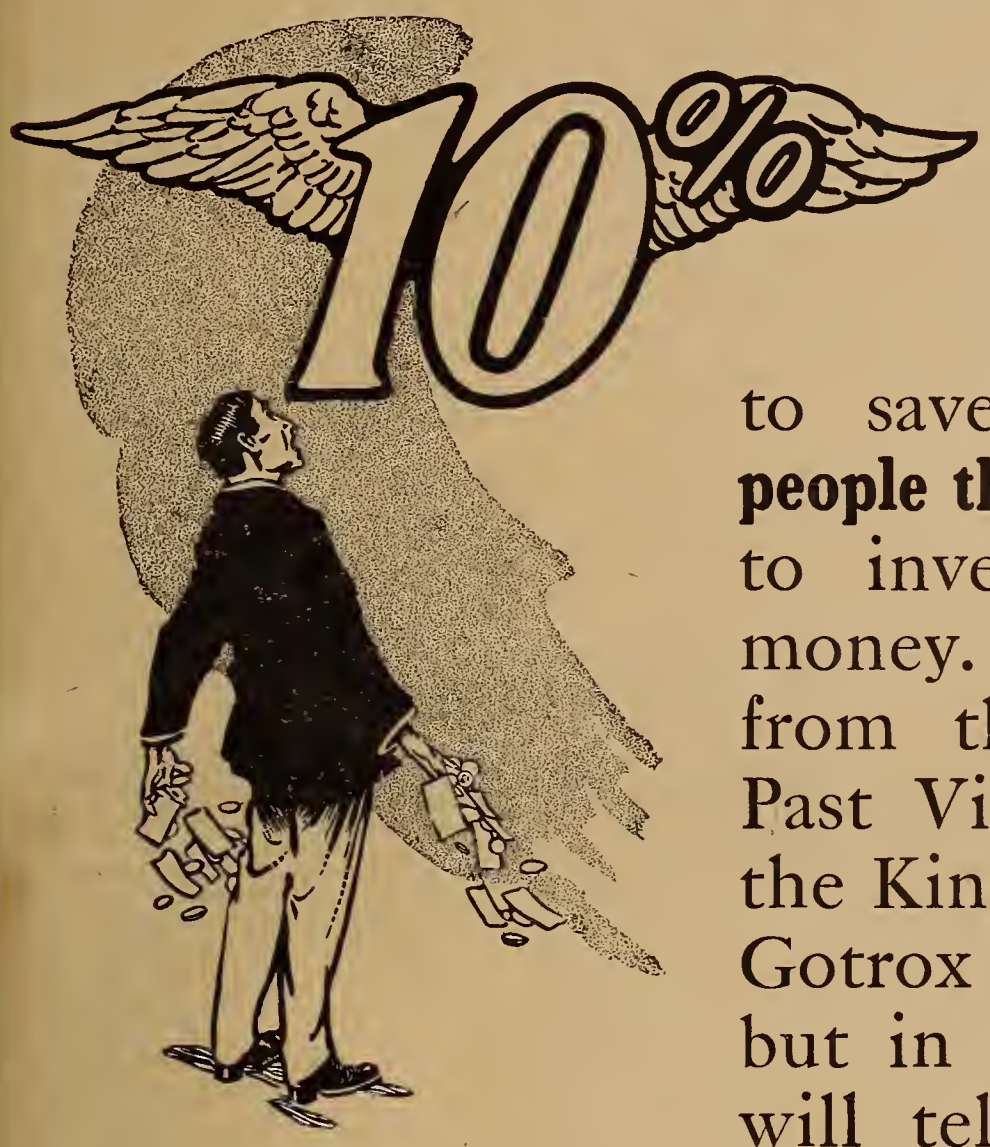
O. J. D., Troy, New York—Pecan growing can be carried on successfully as far north as southern Iowa, and in favored locations somewhat farther north, but probably the best section for them is farther south. This tree will often survive the winters much farther north than it will prove fruitful.

I think chestnuts may be grown in many of the Northern States to advantage, especially in New York and New England. Before you start in on it, however, I would suggest that you visit some parties who are making a business of this.

The best book that I know of on the subject of nut growing is a pamphlet sent out by the United States Department of Agriculture, entitled "Nut Culture," for which apply to your congressman.

Samuel B Green

"How I Lost My Savings"



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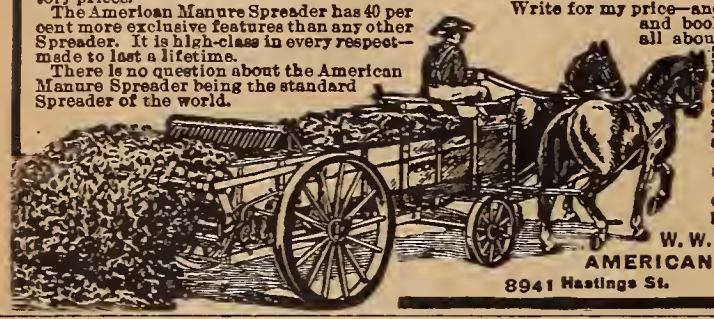

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Live Stock and Dairy

Cattle Shelters

CATTLE out on an open field on a cloudy and very cold and windy day, and unable to find shelter from the wind, suffer under one of two serious disadvantages. They must either move about to keep warm at a waste of energy or, standing still, submit to the bitter wind at a loss of vitality in mere useless endurance of the cold. The constant stream of air flowing over their bodies robs the surface of its animal heat faster than the blood can bring more heat to the surface to repair the loss. If possible they seek the shelter of some kind of wind-break. Even a fence is better than standing in the open.

Now the farmer cannot afford to have his cattle uncomfortable, for discomfort is ditions are changed discomfort will surely nature's warning signal that unless conturn into disease. In fact, the word disease when split in two, thus: dis-ease means discomfort or want of ease.

A man cannot work to advantage when uncomfortable. Neither can cattle grow good beef or give much milk. Therefore, it is well worth while to provide shelter for cattle outdoors on cold, windy days. The barn is a shelter, but every sensible cow wants to be outdoors

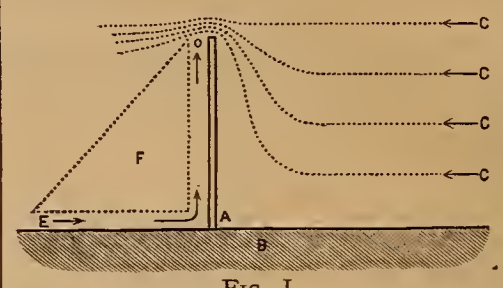

FIG. I

every day, when it does not rain or snow, a part of the day, at least, for a breath of fresh air. The barnyard is often on the wrong or windy side, or it may be ill-smelling and offensive to any right-minded cow. She may not say so, but no man can prove she does not think so.

Why do all animals on cold, windy days seek the lee side of a fence, building, or even a wood-lot? Because experience has taught them that they are warmer and more comfortable in the calm air on the leeward side of any kind of wind-break. They do not reason about it—they simply know the fact. It is for the farmer to do the thinking for them.

First of all, we should understand the reason why cattle feel warmer in the lee of the fence. Suppose we have a tight board fence standing at a right angle to the direction of the wind? Why is the cow standing in the shelter of the fence warmer than when out in the open? The fence creates an artificial calm and the cow feels warmer while standing in this little patch of still air, because the loss of heat from the surface of her body is slower. Her blood brings heat to her skin, but the loss by radiation is so much slower in still air than in a stream of moving air that blows the heat away that she feels warmer and more comfortable. So sure is she of this that she will con-

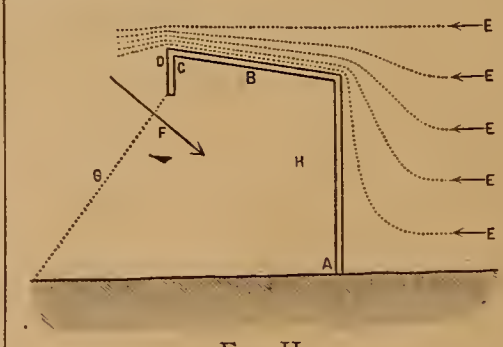

FIG. II

tentedly remain outdoors in the pure fresh, though cold, air rather than face the wind in the open or return to an ill-smelling barn.

Secondly, we should understand why a tight board fence placed at a right angle with a strong wind creates this calm spot on the side of the fence. We cannot see the air move, but a few simple experiments will show exactly how the air behaves when the wind meets such a tight board fence fitting closely to the ground. When the wind blows, the entire mass of the atmosphere next the ground moves forward like a deep, invisible river. When this moving mass of air meets an obstruction, like a board fence, it separates, a part going by on each side at the ends of the fence and a part rising and flowing over the top, and then dropping down and flowing on along the surface of the ground. Immediately behind the fence the air is subjected to very curious conditions. The air in its effort to get over the obstruction flows swiftly up and over the top of the fence and creates a partial vacuum near the top of the fence and immediately behind it.

Stand before such a fence (windward of it) with a handful of small feathers.

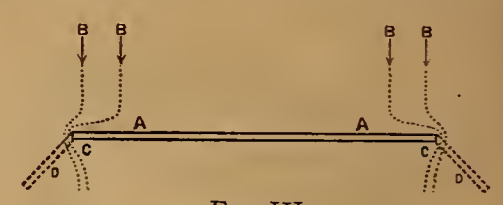

FIG. III

Throw them up in the air near the fence and it will be seen that the wind sweeps the feathers along toward the fence, and then up and over it, the feathers floating on beyond the fence, but gradually falling to the ground. Very few of the floating feathers will fall close behind the fence. Standing about six feet from the lee side of the fence throw some in the air; they will fly back toward the fence. Stand close to the fence and let a few fall and they will rise upward close to the fence, and reaching the top dart off on the wind blowing over the fence. In this manner a few small light feathers thrown on the air before and behind will show visibly just how the air behaves in a high wind on either side of such a fence.

In Fig. I., A, is a board fence, B, is the ground, the arrows at CCCC show the mass of air moving against the fence, the dotted lines and bent arrows show the path of the air in passing over the fence. D shows the place where the vacuum is formed by the swift rush of air over the top of the fence. E shows the back eddy of air behind the fence and the arrows show that this back or return current travels along the ground toward the fence and then upward, rushing in to fill the vacuum and flowing away again

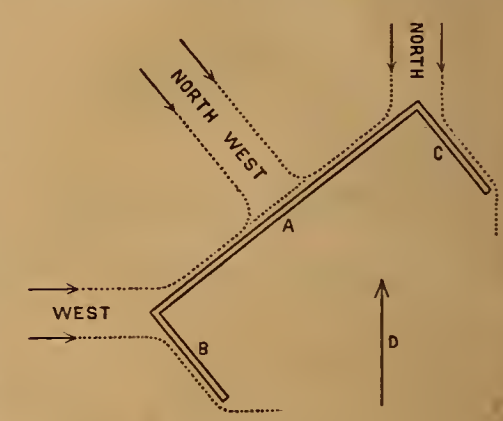

FIG. IV

with the general current of the wind. At F is a triangular space of dead or calm air.

Of course, none of the conditions of the air are exactly as drawn in the diagram yet we do know that this is the way the air behaves, and that there is behind every such wind-break this triangular calm spot, and that all living creatures, wild or tame, know that such a calm spot exists and try to get into it when they wish to keep warm. Such creatures also know that if such a board fence is full of cracks or does not reach the ground the wind will press through the cracks or under the fence and the calm spot will be completely destroyed. If the farmer expects to benefit his cattle by building such a shelter from the wind it must be tight, or it will do very little good.

Every greenhouse man knows that no matter how cold and windy it may be outdoors the inside of the greenhouse is warm just as long as the sun shines upon the glass. The reason for this is readily understood. The air enclosed by the building is calm, and the sun's light and heat passing through the glass warms this enclosed air and, as it cannot escape, it stores heat and becomes warmer and warmer until the sun goes down. In the same way on a sunny day, though in a different degree, the little triangular mass of air under the lee of a fence becomes warm. If the fence stands east and west, then when the wind is north and the

sun shines, such a fence serves a double purpose. It is a shelter against the wind and a storage place for the sun's heat. Cattle know this and seek the sunny side of a wind-break for both the shelter from the wind and to find a warm corner in which to bask in the genial sunlight.

Such a sun-warmed fence has one disadvantage that the wise farmer will do well to consider. The heat collected under the lee of a board fence is small in amount and soon lost by being blown away by the back eddy near the ground and the strong wind sweeping over the top of the fence. The thing to do is to save it. Warm air rises and in the open is soon lost. If a roof were added to the fence, a still better outdoor shelter would be provided.

In Fig. II. A is the rear wall of the shelter; B, is the lean-to roof; C, is a short apron or front to the roof; D, is the spot where the vacuum would be formed. The arrows and dotted lines E show the streams of air moving against the shelter, up and over it. Even the top layer would be crowded up into a hump by the rush of air seeking to get over the obstruction. The arrow F shows the direction of the sun's rays. The dotted line G shows the outside limits of the calm air under the shelter. In the sunshine the warmest part of the calm spot would be at H.

Such a roofed shelter-shed would serve three purposes, a shelter against cold winds on cloudy days, a sun-warmed shelter on sunny days and a shelter against rain and snow on stormy days. Cows basking in the warm, still air of such a shed would find just what they want, fresh air, sunshine and escape from biting winds. Being confortable and contented they would not waste their vitality in trying to keep warm, would eat less to keep warm and, being confortable and under agreeable conditions, would give more milk.

It will be observed that in Fig. I, the vacuum formed by the rush of the wind over the top of the fence is close to the top of the fence on the lee side. In Fig. II. the vacuum is transferred to the top

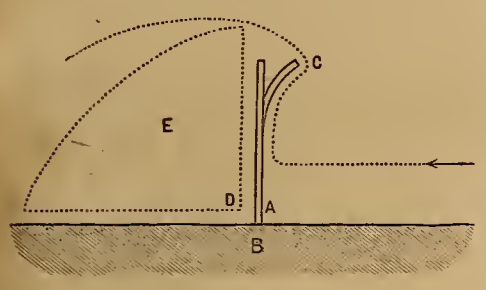

FIG. V

of the little apron at the front of the roof, where it is out of the way. The apron thus performs two functions; it causes the vacuum to form outside the shed and it acts as a little stop or dam to check and retard the loss of the warm air under the shelter. Were it not there, most of the sun-warmed air would rise and flow up along the under side of the roof and be lost.

When the wind meets an obstruction, it endeavors not only to get over it, but also around it. Suppose a farmer erected a tight board fence one hundred feet long and open at each end. A few experiments with feathers would soon show that behind such a shelter there are three places where a vacuum is formed. One would be (as shown in Fig. I.) at the top of the fence and extending the whole length. There will be two more, one at each end.

Fig. III. is a plan of the two ends of such a fence, the dotted portion being the center left out to gain room in making the plan.

In Fig. III. A A are the two ends of the fence. The arrows and dotted lines B show the travel of the air in passing the ends of the fence. The vertical vacuum at each end would be formed at C and C. The heavy dotted lines at D are wings.

These bad spots can be easily taken away by placing short wings or aprons at each end as shown by the heavy dotted lines D D. This suggests the proper shape for a cattle shelter. We have in this country three cold winds, west, northwest and north. The coldest prevailing winter wind is northwest. The west wind is not usually as cold, and the north wind, while cold, is not the prevailing winter wind. As the shelter cannot be moved at every change of the wind and cannot be at right angles with all, the best plan is to have long wings, one at each end.

Fig. IV. is a plan for an open or roofed cattle shelter to protect against all winds between north and west. A is the back of the shelter, at a right angle with the prevailing northwest wind; B, is a wing protecting against west winds; C, against north winds; D, shows the direction of the sun at exactly twelve o'clock each day. The five arrows show the direction of the three winds. The dotted lines show that when the wind meets an obstruction it does not rebound or "echo," but travels along the sides of the obstruction until it can find a free path, when it travels on in its original direction. This is shown by the dotted lines at the sides and back of the shelter.

In Fig. IV. the dotted lines show that when the wind strikes the fence it spreads out flat against the fence and moves up, close to it, until it can flow over the top. Some recent experiments in France show that advantage can be taken of this in guiding the wind in such a way as to increase the calm space behind the fence without increasing the height of the fence.

In Fig. V. A is a section of a fence standing on ground B. At C, at the top of the fence, on the front windward side, is a curved shield that extends the whole length of the fence. The arrow shows the direction of the wind and the dotted line shows the path it takes when it meets the fence. E is the calm place.

It is shown that the wind follows the shield and, instead of turning directly over the fence, is thrown up into the air and flows on in a long sweeping curve quite above the top of the fence. The experiments showed that with such a curved shield at the top of the fence a man standing at D could expose his head above the fence and even look over the top and not feel the wind at all. His head is in a calm and yet, if he holds his hat in his hand above the dotted line it might be blown away by the wind blowing just above the top of his head. These experiments were made to show how the man on the bridge of a steamship could look over the top of such a wind-break and not feel the wind at all and thus be able to look against the wind while standing in calm air. The experiments make a most valuable contribution to our knowledge of wind-breaks and cattle shelters.

Would such a shed or open shelter pay? It depends entirely upon circumstances, and the writer would not presume to say whether it would pay in any particular place or not. This much is true: Such shelter would be appreciated by the cattle. Erect some such shelter and then, without saying a word to the cattle about it, see how quickly they will find it and use it. Ask the dog where he likes to sleep outdoors (and your wise dog always prefers the fresh air), and he will tell you plainly enough, "why, out of the wind and in the sun, of course." Look at your barns and out-buildings. Perhaps, by a little planning, a good shelter can be built at small expense by adding wing fences to a building, and so creating what every animal wants in winter, fresh air, shelter and sunshine. These three are essential in the well-being of a man, a horse, a cow, and every other living creature.

Connecticut. CHARLES BARNARD.

Live Stock and Dairy

Care of the Autumn Calves

It has been the custom at our place for a number of years to have a large proportion of our calves to put in their appearance in autumn, in order that we might not only have the care of them during the slack time of winter, but also obtain the prices for the butter-product, which ranges much higher in the market here during the winter season. We have found that our farm dairying process paid us much better at this season, and also that by a little extra pains we are enabled to produce just as good grown calves in this manner and at this season as we can upon the grass in the summer season. We do not mean to say that we can produce them as cheaply as we can with grass, and yet, when we take the high prices of our farming land into consideraion, we almost dare to contend that it is most profitable to feed the calves in a lot by themselves and transport the green feed grown upon cultivated portions of the farm to them.

The autumn calf does not have the advantage of the early spring produced animal it is true, weather conditions as well as advantages of care is in favor of the latter at all times, but the former animal is properly housed and given the proper condiments and kept in proper condition it certainly has just as much room to grow and expand into a well-developed animal as its more favored brother.

There is certainly much more in the care of an animal to get the proper development than is usually given credit by many of our stock raisers, and in no place is this feature in profitable stock raising shown so strongly as in the proper care of the winter calves. There is scarcely any well-managed farm in this region that does not produce from one to a dozen of these animals, and just now is a very opportune time to go into the study and care of this most profitable animal, and endeavor to care for them in such a manner that they may be made to grow into profit and not be a loss to the owner during the winter.

The ailments of the winter calf are not so easily overcome; hence care should be taken to avert all possible disorder by careful feeding and proper housing. Calves should have a good comfortable shelter made of well-thatched straw or stalks. Or if it be of boards, all cracks should be well battened up in order to exclude draft. It is expensive in the extreme to feed a calf that must shiver off half its feed in trying to get a night of rest. Plenty of straw or coarse litter must be employed in bedding the animal, and the sheds cleaned out at intervals of not more than two weeks.

Over-feeding is one of the evils of wintering the average calf, and if care is not taken along this line much disorder may ensue. The stomach of a calf will hold just so much milk, and the owner should study each individual he is caring for and feed it just the proper quantity at each feed. It is not at all good custom to feed the calves their milk in a trough and allow them to drink together. The most rapid drinkers will get the largest bulk of the feed and the weaker ones will become stunted and dwarfed in a short time.

The best method is to give each individual its proper quantity of milk alone in a clean sanitated pail. Since the event of the deep-setting cream separator our calves get sweet milk at all times, strictly fresh from the machine, fed in pails used for no other purpose, and scrubbed to prevent accumulation of dirt or likelihood of poisoning.

Filthy pails for feeding are the cause of much disorder in calves. As soon as the calf learns to drink well it is broken to drink the supply of milk without heating. We think that they do just as well upon this diet in this condition as when warmed, and it is much less trouble in preparing. We would not recommend feeding iced milk, nor cold enough to bring a chill over the animal. In this case the animal cannot profit the owner, and the milk had best be warmed by the addition of hot water in order to remove the chill.

Careless feeding carried to extremes will result in a disordered stomach, and is always followed by scours.

Most calves when being fed in the winter upon dry feed will consume more or less water, aside from the milk diet required, and water should be given regularly.

There is no rough feed upon the farm that might be termed best for the wintering of calves. The usual supply of feed upon the well-regulated farm consists usually of clover and timothy hay, alfalfa, corn stover, oats and millet hay, etc. The calves should be given of these feeds just what they will clean up nicely three times each day, and it is best fed in small open racks or mangers placed at a convenient height that they may reach it well and not waste the feed by trampling it down.

Oil-meal in addition to chop feed, chiefly oats and barley, or corn ground together, makes a very good feed to balance the ration of rough feed. This must be fed to each animal in just the quantity it will stand without showing signs of disorder. Some growing calves will consume much more feed than others without inclination toward a disordered stomach. In case of this cropping out we have always found a good home remedy in breaking a beaten egg into the milk.

It is a very bad custom to mix the grain diet with the feed of milk; it should be fed in small troughs where each individual may have its share alone. We have always found in feeding chop that it is best fed perfectly dry

With proper housing and feeding we see no reason why the winter-grown calves should not come forth in the spring-time hearty and robust, and in the end make as blocky beef-product as the spring grass-grown animals.

Ohio. GEO. W. BROWN.

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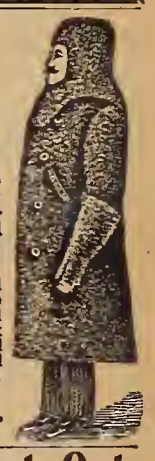

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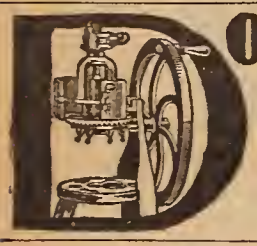

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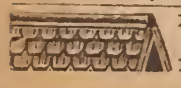

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Poultry Raising

The Egg Supply

With the change from summer to the cool weather of autumn there is always a change in the quantity of eggs produced This season does not seem to be an exception compared with former years. Winter cold-storage eggs cannot compete with the fresh article, for already the cold-storage supply has been brought out, to a certain extent, yet in the markets of the large cities the prices of fresh eggs are high, the regular quotations giving no indications of the large quantities sold at special prices to parties who will have nothing but the best. If farmers will give their attention to the production of eggs during the winter, they will find opportunities for disposing of many undesirable foods on the farm that cannot be used by any class of live stock but poultry, and the fowls will pay well for the labor and care if properly treated. It is true that farmers do not realize large profits from poultry, but such results must not discourage those who are willing to assist the hens with warm quarters and a bountiful supply of food. The supply of fresh eggs is seldom equal to the demand, and every farmer in this country has an opportunity to venture in poultry keeping with excellent prospects of success.

Selecting a Good Breed

Where the climate is cold in winter and the birds are to be confined during a long period, the Asiatics (Brahmas, Langshans and Cochins) are perhaps as suitable as any, as they are heavily feathered and seem well able to endure severe cold. They have feathered legs, and also combs of medium size. For climates where the weather is somewhat mild the Leghorns are excellent, but they are active in inclination and dislike confinement. Plymouth Rocks and Wyandottes seem to thrive in nearly all climates, judging from their popularity. They are divided into several branches, according to color of plumage, but it is doubtful if there is any advantage possessed by any one variety over another. It is not always convenient to select the most suitable kind, but it should be done if possible.

Weights of Pullets

When pullets have nearly reached maturity, and are below the required weight for the breed, there is room for improvement in the flock. To have a flock of Wyandotte or Plymouth Rock pullets, that should average at least five pounds each, reach the weight of only four pounds is an indication that the flock has not been well managed, or that careful selection of the parent stock each year has been overlooked. Where there is reduced size the flock should be improved by purchasing a few birds from outside sources, such birds to be large and thrifty. Small pullets seem out of place in a flock where the members should be up to the standard weight. The flock should be uniform in all respects, if possible, the object being to have something better each year. It is not out of the ordinary for Leghorn pullets to be small, but they should be lively and active. To allow Wyandottes, Plymouth Rocks, or the Asiatic breeds to become reduced in size is to lessen their value as market fowls, as well as to render them more susceptible to disease, the most vigorous birds being usually of full weight and size.

Bulky Materials

Concentrated foods are not relished at all times. Something of a bulky nature is appreciated by poultry, especially if the bulky food is green or succulent. If it is not convenient to cut and scald clover hay for the hens, an excellent plan is to throw an armful of hay where the hens can work it over, and they will eat every leaf. A head of cabbage fastened to a short stake that has been driven into the ground, will be eaten until but a portion of the stalk remains. Of course, there are better modes of preparing bulky foods, but where it is preferred to allow the hens to help themselves the clover hay and cabbage will be sufficient for providing a change from the grains to something more bulky.

Variety is a great factor in egg-production, as the hens will thrive better if given a varied food, and will also lay more eggs, a larger supply of the elements necessary to egg-production being obtained when the foods are not restricted to a few kinds. The bulky foods are the cheapest, but they lead to good results because they promote the thrift of the flock and create contentment during the winter confinement, especially among those members that have industriously foraged during the summer.

Cleanliness in Feeding

While it is well to compel the fowls to scratch in litter, when grain is allowed, so as to exercise, yet the soft foods should be supplied from troughs in order to avoid the filth of the ground, the damp food easily accumulating dirt if thrown where the hens must walk over it and scramble with each other for their supply. Many cases of disease in flocks can be traced to the lack of cleanliness in the use of soft foods for poultry.

Wire Yards and Shelter

Now that the cold winds will soon begin, the use of wire for poultry yards should be with due regard to the comfort of the flock. Wire is probably the cheapest material that can be employed for enclosing poultry, but it will pay to use wind-breaks of some kind on the fences, such as a board fence three feet high, and using three feet of wire fence above the boards, which will give a six-foot enclosure. Tarred paper, roofing paper, or any suitable material, fastened on the outside of the fence, as a protection against the cold winds, will answer the purpose if no boards are used with the wire. If the hens are protected against the cold blasts while they are enjoying the sunshine in the yards, they will lay more eggs than if not thus shielded, while the reduced feed bill will compensate for any expense incurred. Warm yards during the day and warm houses at night will be found of much assistance in increasing the returns from the hens during the cold season.

Difficulties in Watering

It is difficult to supply fresh water to poultry when the weather is severely cold, as the water freezes and cannot be used. Earthenware fountains are often broken by expansion during freezing, and the only convenient method of providing water is with the aid of wooden troughs, which can be scalded and kept clean with ease. To avoid freezing, some poultrymen adopt the plan of watering their fowls three times a day, using tepid water, and the birds soon become accustomed to the practise. Immediately after the hens have finished drinking the troughs are emptied, placed on end out of the way, and used only when the next watering of the flock occurs.

Condiments in Food

Pepper, saffron, or other so-called "appetizers," are really of little value as additions to the regular meals of poultry. But ginger, finely ground, has been known to give relief in some cases of diarrhea. Ground spices, if cheap, may be used in cases where the flocks have eaten too much green food, as nearly all kinds of poultry seem to relish or accept spices, but it is not necessary to incur expenses in that direction, as the results from the use of spices are seldom satisfactory.

Inquiries Answered

FEEDING FISH TO POULTRY—H. C. C., Sumdum, Alaska, asks "if salmon, or salmon spawn, fed to chickens, will taint the flesh or eggs."

If largely fed on such foods the probality is that the odor of fish will be noticeable.

STAGGERS—J. B. M., Salt Lake City, Utah, desires to know the "cause of a rooster staggering and falling down while eating, otherwise seeming in good health." It is probably due to vertigo, resulting from too much highly nutritious food. The remedy is to remove the bird and allow only one meal a day for a week or two.

P. H. Jacobs.

Woman's Institutes of Ontario

THE first Woman's Institute of Ontario was organized in 1897, and the movement has met with approval and enthusiasm to the present time. The membership is increasing, and new institutes are organized every year.

At some meetings which I attended this year the membership averaged from twenty-five to one hundred and seventy-five. At Drayton the women's institute was combined with the farmer's organization, and the attendance exceeded one thousand.

A good feature of these organizations is that they are practically self-sustaining, while the government is ready with a goodly sum to sustain the weak ones, yet they are expected to help themselves as much as possible. A membership fee of twenty-five cents is charged to defray local expenses, and the expenses of the "state speakers," or delegates, as they are known there. Each member receives a number of periodicals and the "Handbook," which is a yearly book printed in the interest of women's institutes.

HOW CONDUCTED

Their meetings are localized, so that nearly every village has an organization. There is a "mother" organization, or district institute, with a district secretary and president, whose duty it is to keep in touch with all local organizations in the district. This duty chiefly falls to the district secretary. She is paid $15 a year for her work. Once a year a meeting of all the local officers are held at this "mother" point of the district, where the district business is conducted. The success or failure of the local meetings depends very much on the district secretary. Some districts have retained their secretary a number of years, so they have become very efficient in their work.

ARE THEY PRACTICAL?

The question is asked quite often, "Are they practical?" I have had two seasons with them, and I know they are intensely so. When such subjects as fruit-canning, preserving, sewing, butter-making, bread-making, ventilation and first aids in accidents, children's foods, etc., etc., are taught by experts in these lines, we readily recognize what the Canadian women are learning.

Again there are a number of thrifty meetings that have their individual libraries in connection with the work. Books that are used in every domestic science school are used, also standard literature of poems and fiction and history.

I can think of no other method of doing so much post-graduate work as these institutes are doing for the Canadian women. They are constantly in school, studying out the economic problems of home-life, as well as the great elements of character-building for their children.

DEMONSTRATIONS

A few years ago the traveling dairy was the first demonstration that appeared. The result has been that every farm home has a cream separator, and poor butter is seldom found. Now the farmers' organizations are demonstrating tile drainage, while at the women's meetings demonstrations of cooking are presented at every institute. The demonstrator carries an outfit containing all kinds of small cooking utensils, which is supplied by the government.

The local officers usually express a desire for whatever they wish prepared, then a list of articles required are forwarded by the demonstrator to the local secretary to be in readiness for the demonstration. These demonstrations include the cooking of meats, soups, salads, creamed sauces, puddings, etc. The idea is not to teach cooking alone in these demonstrations, but why the putting together of certain things will produce certain results. The question "Why?" is greeting every kitchen chemist to-day, and a good home-maker must continually be a student to be successful in every avenue her work opens. These demonstrations also teach economy of time and economy of strength, and how to attain the desired food value for the family.

I truly think the Canadian government has struck the key-note in its methods of educating the women of the country.

Indiana. MRS. J. W. BATES.

Cooperation in Selling

The grange exhibit at the Ohio State Fair brought out many interesting discussions. Much interest was taken in the matter of direct buying from the producers by various associations. A labor organizer complained of the high prices of produce compared with what the farmers receive for it. He was paying 80 cents a bushel for apples, while thousands of bushels were wasting in the orchards of the state. He was anxious for arrangements to be made whereby the organization could buy direct, and naturally felt the Grange would be a medium.

I took pains to investigate and discuss it with others and found the same desire. They wanted to get in touch with producers. For the last year, having changed location, it has been necessary to buy much that we formerly produced. I have contrasted selling and buying prices. Apples are now selling in the Western Reserve at $1. a barrel. The freight rates here are 20 cents a hundred weight, or 10 cents a bushel. The apples would cost us, bought direct, about 45 cents a bushel. They are from orchards well cared for. We pay 75 cents a bushel. When potatoes were selling for 30 cents a bushel in the potato-producing sections we were paying 80 cents. Delivered here the potatoes would cost us 40 cents per bushel. We bought creamery butter, made ten miles away, and paid 29 cents during August. I found that the producers were receiving 20 cents a pound. A difference of ten miles made a difference between selling and buying price of 9 cents a pound. Here is a difference of 30 cents for apples, 40 cents for potatoes, after paying transportation, which is very high, both non-perishable products. By splitting the difference both producer and consumer would be benefitted. Naturally, the Grange which is organized for coöperation, is the organization to take this matter up in earnest. The consumers are anxious for this direct dealing. They are seeking methods for its accomplishment. Some organization of farmers will secure this trade. Why not the Grange?

The Grange

Postal Deficiency

Office of Master,
Forest Grove, Oregon.

To Patrons Greeting:

You are doubtless familiar with the conditions existing in the National Post-Office Department. There is an annual deficit of $15,000,000 and growing larger each year. With such deficit, even if there were no other factors to meet, it is a difficult matter to persuade Congress to establish Postal Savings Banks or Parcels-Post Delivery, such as now exists in Mexico and nearly all European countries. It also retards the extension of our rural delivery system. Ours is the only great nation where such a condition exists, and the patrons of Oregon are convinced that this is due largely to the following facts: By the payment of exorbitant prices to the railroads for the carrying of the mails; by the payment of extravagant prices for use of stamping machines, time-recording clocks and many other supplies used in every branch of the service; and by the flagrant abuse of the franking privilege.

"In support of this belief we ask your consideration of the following facts: For carrying the mail a distance of ninety miles between two points in Oregon, one mail each way six days in the week, the Government pays a certain railway company $6,000 a year. In addition it pays the company rent on three cars at a rate that would more than build each of three cars new every year. Only two of the cars are used at any one time. Only one half of each car is used for mail purposes, the other half being used by the Wells Fargo Express Co. It cannot be learned whether it pays any rent or not.

"Mercantile institutions pay from $100 to $200 for time-recording clocks. By some strange regulation the Government is never allowed to buy these clocks, but pays an annual rent higher than the cost of the clock. Various departments of the government have sent steel safes, billiard tables, desks, bookcases, chairs and lounges free through the mails, and many of these heavy shipments are made during the period when the mails are being weighed to determine the basis of compensation for the railroads. In 1899 this free matter, exclusive of wrappings, constituted 12.58 per cent of the entire weight carried. No one knows how many cases there are, like that of a certain congressman, who franked so many documents to swell the mail carried by a favored railroad at the time of the weighing on which its pay for four years was to be based, that it was necessary to rent a barn for storage.

"It is stated on excellent authority that the railroads charge the government about 800 per cent more than they do the express companies for similar service. The patrons of Oregon believe that the greatest amount of good should be accomplished in securing beneficial results if the National Grange would make an indepedent investigation. It could collect such an array of facts as to force the uncovering and correction of the whole matter. Fraternally yours,

AUSTIN T. BUXTON,
Master Oregon State Grange.

Higher Taxes

Many correspondents in different states complain of an increase in taxation without adequate increase of public service. This is especially true in Ohio, and the farmers are crying for redress of the wrong. The Grange, under the splendid leadership of State Master Derthick, is making a fight for equalization of taxes and a more honest expenditure of money raised by taxation. Collect all the data possible in your own county, find where the money is spent, what form of property bears the burdens, bring it up before your Grange, and create sentiment that will correct the evil rather than bear and growl about.

Juvenile Granges

There is a widespread interest in Juvenile Grange work. Many are organized, while others are talking of it.

Mrs. W. A. Lloyd, of Athens County, Ohio, has organized a fine one, and asks for outline for nature-study work similar to that prepared for the older people in the Home Reading-Course. Many others have asked for an outline on nature study, and I will prepare one as soon as possible. The intelligent people demand these things of the Grange. The Grange exists for the farmer, for his culture and benefit, and no less for the little ones.

Children are eager and inquiring. Nature prompts the questions she would ask. Because we are ignorant we do not answer them. Watch a child as it eagerly peers into the secrets of nature. It is abounding curiosity prompted by God to further a knowledge of his handiwork. Yet the child is turned away. In after years he pays dearly in time and money to answer the questions in college that childhood asked, and which it was then easy for it to learn because its interest was aroused. Oh the aspirations that are strangled, the inquiries stifled, because the questions we asked in childhood were not answered, and we have not yet searched for the answer. Truly civilization is a history of arrested development. Organize juvenile Granges, take the children to the fields, the stream, get close to nature's heart and converse with her. Her speech is sweet, her voice soft as the rising wind, her caresses soothing.

Helpful Reading

A number of city librarians testify to the fact that the children are reading better literature than formerly, and that their choice is wiser than that of their elders. Science and biography lead in interest. The amount of juvenile fiction read grows less each year. What a splendid sign this is. Fiction has its place in the intellectual and moral development of the individual, but not all the place. My college president, Doctor Super, one of the most careful readers I have ever known, read one volume of fiction a year. It is a good rule to follow.

Special school for trades and sciences, special courses of reading for the city dwellers are being largely patronized. People are learning that without special fitness there is little chance of success. The Y. M. C. A. and Y. W. C. A. are doing splendid work in this line, and also in securing specialists for lectures for the young people. In the country the Grange is doing for its members what these organizations and similar ones are doing in the city. The day is past when one can hope for success from manual labor that is not directed by a trained brain. Skill and intelligence combined with thrift will bring a rich reward.

Mary E. Lee

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You can't get a poor lamp-chimney with my name on it.

MACBETH lamp-chimneys fit, don't break from heat, and are so shaped that they get the most light from the oil consumed.

All lamp-chimneys break. Mine break only when they are dropped or knocked over.

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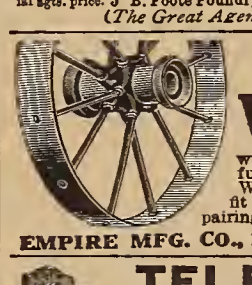

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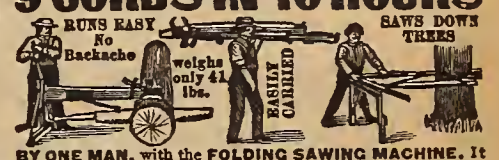

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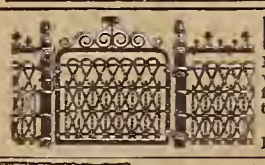

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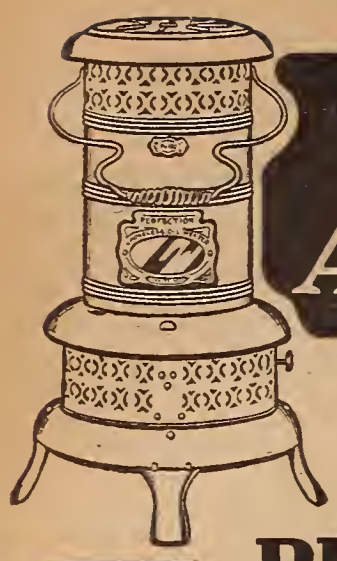


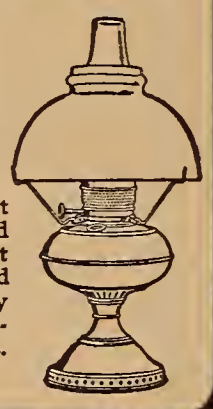
Have You A Cold Room?

In most houses there is a room without proper heating facilities—to say nothing of chilly hallways. Even though the heat of your stoves or furnace should be inadequate to warm the whole house there need not be one cold spot if you have a

PERFECTION Oil Heater

(Equipped with Smokeless Device)

It will heat a room in no time and will *keep* it warm and cozy. Operated as easily as a lamp and perfectly safe. Wick cannot be turned too high or too low. Gives no smoke or smell because fitted with unique smokeless device. Can be carried about, which cannot be done with an ordinary stove. The Perfection Oil Heater is superior to all other oil heaters and is an ornament to any home. Made in two finishes—nickel and japan. Brass oil fount beautifully embossed. Holds four quarts of oil and burns nine hours. Every heater warranted. If not at your dealer's write nearest agency for descriptive circular.



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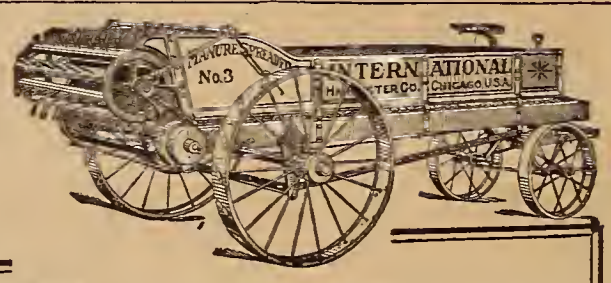

A good spreader costs considerable but it is worth more than it costs.

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You get for your money—

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I. H. C. Spreaders are well proportioned machines. They are strong but not needlessly cumbrous—strong where strength is needed, with due regard for light draft and load to be carried.

The I. H. C. apron is driven at both sides, by both hind wheels. This eliminates all binding, friction and undue strain.

It has a vibrating rake to level the load—exclusive feature.

It has a wide range of feed, consequently a large or a small amount of manure per acre can be distributed. It is the only spreader controlled and operated entirely with one lever.

Made in three sizes for each of the two types, Cloverleaf, endless apron, and Corn King, return apron.

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Send three 2 cent stamps for a copy of "Farm Science." Book just from the press, written by eight leading agricultural authorities of the United States. Treats practically every farm topic in the most forceful, money-making way.

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(INCORPORATED.)

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Nothing can get by the four bladed, revolving knife and pass through the perforated plate of an Enterprise Chopper without being actually *cut*—the cutting action is as positive as a pair of shears.

Useful as a sausage cutter at butchering time—as a food cutter all the rest of the year.

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TELLS all ABOUT the SWEDISH-AMERICAN **PLAN** OF ORGANIZING TELEPHONE COMPANIES

This plan has proven the most successful and practical for rural communities and small towns. It is the largest and most complete book on rural telephones—valuable and instructive because the information it gives is the result of actual experience. It tells why the Swedish-American Telephone is the 'phone for rural lines; tells how to organize a Company, secure subscribers, build lines, connect telephones, etc. It gives cost per mile, contains models for franchises, constitutions, etc.; also illustrations of telephones and parts, switch-boards, tools, supplies and wiring diagrams; teaches how to locate and remedy telephone troubles. Don't buy any telephone until you get a copy. Send today and write us a good long letter about the telephone situation in your neighborhood. We'll write you a personal letter full of helpful advice that you can use in your own neighborhood. Address,

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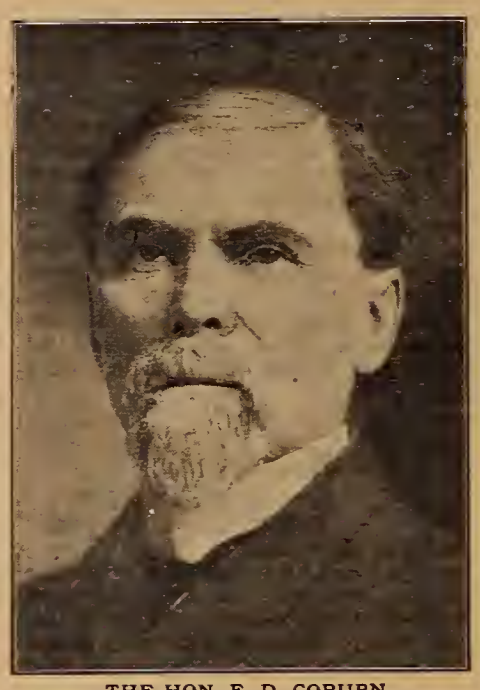
TREES $5 PER 100, FREIGHT PAID Apple, Pear, Plum, Cherry, Peach and Carolina Poplars, healthy, true to name and fumigated. All kinds of trees and plants at low wholesale prices. Remember we beat all other reliable Nurseries in quality and prices. Catalogue free, Reliance Nursery, Box D., Geneva, N. Y.

Coburn, The Farmers' Friend

THE Hon. F. D. Coburn, of Kansas, has well earned for himself the distinction of being the farmers' friend and the friend of his own state of Kansas. It is doubtful if there is a man in the state who has done more to advance the best interests of Kansas. He is sort of a press-agent for the state, and what he does not know about her agricultural resources has never been told. He was a farmer from his early boyhood, and at heart is one still, although for thirteen years he has been secretary of the State Board of Agriculture in Kansas, a position to which he was called because of his eminent fitness for the place. He had written so much that showed a keen insight into the agricultural resources of Kansas, and had published the state so thoroughly through his writings, that it was felt that he could be extremely useful in the office of the State Board of Agriculture. He did not over-estimate his value to the state in his present position when he declined to accept the appointment to a seat in the United States Senate, bestowed upon him by Governor Hoch, because he felt that he could be more valuable to the state in his present position.



THE HON. F. D. COBURN
Secretary of the Department of Agriculture of Kansas

"Coburn, of Kansas," as he is so often called, is a Westerner by birth. He was born in Wisconsin in the year 1846, and he was but two years of age when he was left an orphan. He has had to shift for himself since his thirteenth year, and he was but seventeen when he enlisted in the 135th Illinois Volunteers. When his term of enlistment expired he reënlisted in the 62d Illinois. When he was mustered out of the service in 1866 it was with the rank of sergeant-major and he was not yet twenty-one. He went out to Kansas in the year 1867, crossing the Missouri River on foot on the ice. He became cook and helped to herd cattle on a cattle ranch. He taught school in the winter to earn money with which to make a first payment on a farm. He married a Kansas girl who was willing to do her part toward helping her young husband to earn a farm.

From the first young Coburn determined to become an intelligent and even a scientific farmer. He "read up" on the subject of farming and made a study of soils, fertilizers, stock raising and everything pertaining to farming. He was well aware of the tremendous possibilities of Kansas as an agricultural state, and he began to call the attention of others to those possibilities. He combined writing with farming. He wrote much and well on agricultural topics, and gave hope and inspiration to many farmers through his common-sense writings. He established such a reputation for intelligence in his writing that in the year 1880 he was asked to go to Topeka and do some special work for the State Board of Agriculture. He did the work so admirably that he was unanimously elected secretary of the board, and he accepted the position because of the larger opportunity it gave him of serving the state. He then had a set-to with the politicians who, when they found that they could not dictate to him and run his office to suit themselves, effected a combine that got him out of office. He then became, and was for nearly six years, managing editor of the "Live-Stock Indicator." He was appointed by two different governors, of opposing political beliefs, a member of the Board of Regents of the State Agricultural College, and served three terms as president or vice-president of the board during the years of the institution's most substantial advancement.

In 1894 he was again made secretary of the State Board of Agriculture, and has held the position by six unanimous reëlections ever since. He was one of the expert judges of live stock at the Columbian Exposition and was chief of the Department of Live Stock of the Louisiana Purchase Exposition at St. Louis.

Mr. Coburn has published thousands and tens of thousands of pages about the agricultural resources and products of Kansas. Speaking of his work not long ago he said:

"I earn my salary by doing things not required by the law. The law requires that I issue big tomes of statistics at regular intervals, but I consider that the most valuable part of my work is the publication of these little books which tell the wonders of Kansas agriculture. I have been at this for many years, and still I am astonished at the things I find when I get to digging up facts. I print these little books to allow these facts to percolate throughout the country. I believe in good printing. I aim to make these books about Kansas agriculture look different from any other agricultural literature. Good printing pays."

Probably no state in the Union has in it a man who is advertising that state in so many and in such unique ways as the farmer-secretary of the State Board of Agriculture advertises the state of Kansas. Each envelope that goes out from his department has on the back of it some information about Kansas resources and possibilities. He floods the country with pamphlets, booklets, quarterlies and reports of all kinds, showing what Kansas has done, what she is doing and what she proposes to do along the line of agriculture.

The farmer of Kansas has only to ask for information from Mr. Coburn's department to get it, and if he is in Topeka and wants to see Mr. Coburn himself he will receive the glad hand if he wants to talk about anything pertaining to farming in Kansas. No less than 1,600 of the most intelligent farmers in Kansas assist Mr. Coburn in securing and reporting information about Kansas. They fill out cards and blanks he sends them and each of them is a little wheel in the information machine of the secretary of the State Board of Agriculture.

When it comes to work Mr. Coburn is a marvel. He says that he believes in the eight-hour law; that is, eight hours in the forenoon and also eight in the afternoon. Perhaps he learned to work that way on his farm. If he did he keeps it up in his office, and he is one of the hardest workers in Kansas. He is called the most useful man in Kansas, because no other man has done so much nor is any other man doing so much for the best interests of one of the greatest agricultural states in the Union. If you want to "strike fire" just say something derogatory to Kansas in the presence of F. D. Coburn. He contends that it is the greatest state in the Union, and there is nothing better than for a man to be loyal to his own state.

MORRIS WADE.

◈

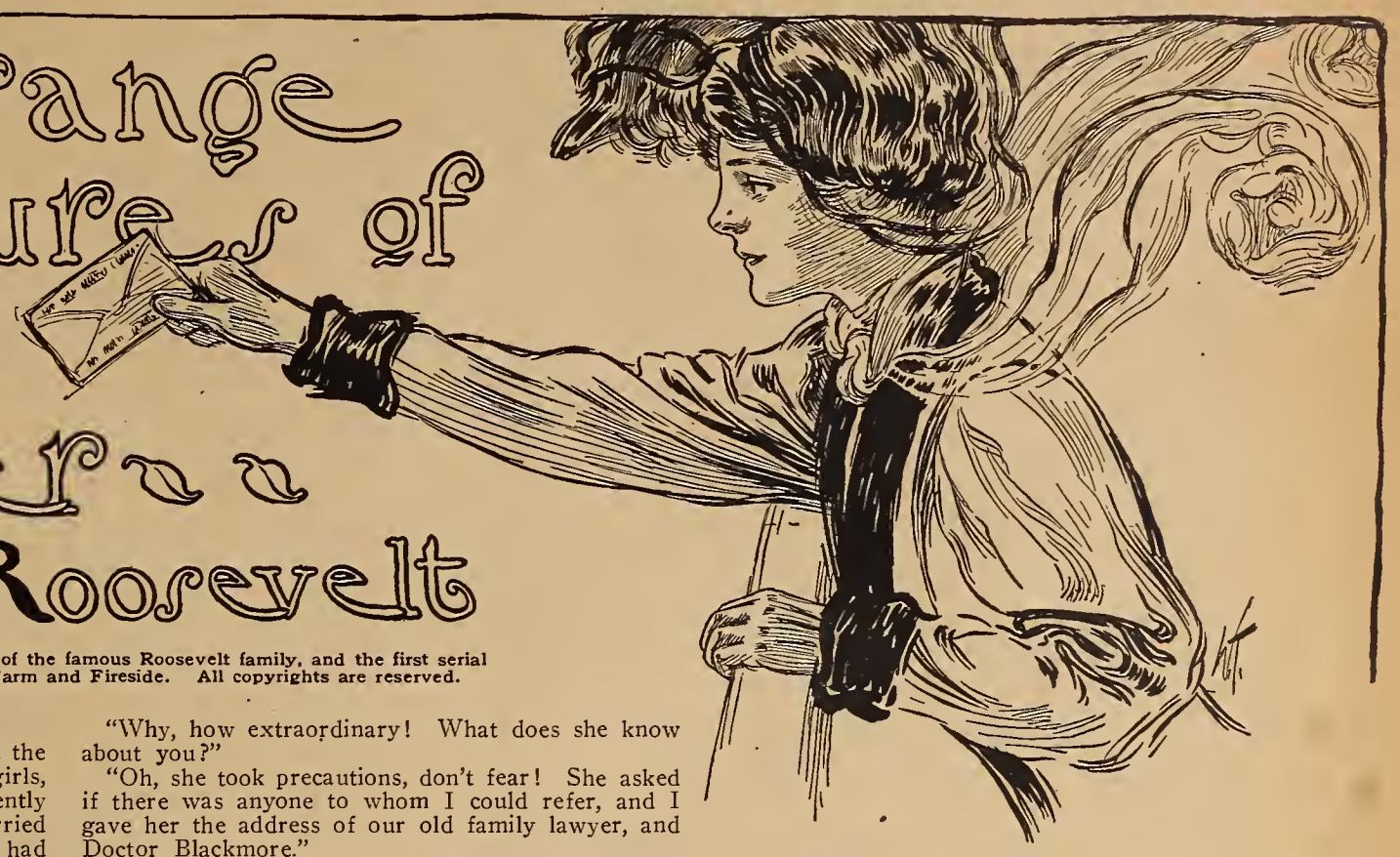
The following are texts that headed some of Mr. Coburn's famous state pamphlets—reports of the Kansas State Board of Agriculture:

KANSAS WHEAT-GROWING—"There is not on the vast expanse of the globe a savage or semi-civilized nation that cultivates the wheat plant. Its culture has caused savages to abandon their barbarous customs, has fixed in friendly communion many nomadic and rival hordes, and inaugurated the greatest era the world ever saw—the era from which the human race may date its incipient civilization, the era of labor."

THE HELPFUL HEN—"While everything else was going to rack and ruin, she increased and multiplied; she supported herself, and the family too. The very insects which would have despoiled the farm she fattened upon, laying her daily egg—the blessed egg that took the place of beef and milk, mutton and pork—and in good time, after all these services, surrendered her toothsome body to the cause of humanity."

Special Magazine and Feature Section

The Strange Adventure of Helen Mortimer



By Maude Roosevelt

This story is from the pen of a gifted member of the famous Roosevelt family, and the first serial publication rights are the sole property of Farm and Fireside. All copyrights are reserved.

CHAPTER I.

"Good news!" cried a breathless voice outside the bare, well-lighted room, where two girls, neither much beyond twenty, were diligently working in oils before their easels. Hurried footsteps climbing four flights of carpetless stairs had prepared them for Helen Mortimer's coming; and when the door burst open, and she entered, radiant with suppressed excitement, one of the painters laid her palette on the floor and ran to embrace her.

"You are taken!" she exclaimed. "How—when! What is she like?"

"Splendid!" returned the girl. "Oh, Edith, I can scarcely believe it. Forty dollars a month and all my expenses, and—and we sail in three days!"

Edith's face clouded. "In three days!" she repeated. "Oh, my dear, that is dreadful! How are we to do without you?"

Helen sank upon an improvised divan and dragged at her gloves. "Well, you would rather be separated from me than see me starve before your eyes, wouldn't you?" she asked excitedly. "Do you realize that I have only fifteen dollars between me and—perdition! Beggared orphans can't be sentimental! It has come in just the nick of time."

Mary Halloway, the eldest of the three, a commonplace, practical-looking person, wearing spectacles, and with her hair brushed back tidily from a plain face, now arose, and, with palette and brushes in hand, stood looking down on the two meditatively. "Where are you going?" she asked.

"To Europe! Think of it—to Paris!"

"But my dear, do you know anything of the woman? Is she a lady?"

"Lady enough for me! I didn't ask for her pedigree. Why you two act as though it were the simplest thing in the world to get an offer of forty dollars a month to accompany a very agreeable woman to Europe!"

"If she is all right, of course, it is splendid," said Edith slowly, "but Helen, dear, it is an awful risk to cross the ocean alone with a stranger you know nothing of. No one can—"

"Oh, well, isn't my whole life a risk?" interrupted Helen. "Whatever happens could not be worse than the constant dread of coming to the point where I can't pay my eight-dollars-a-week board bill! I have gone on like this now for two years, since heaven saw fit to take my brother and last relative on earth from me. In story-books a situation like mine may appear very interesting, but excuse me from going through another month of it! You two have something to depend on. You can make enough by illustrations and painting advertisements to keep body and soul together, while I have nothing but a very ordinary education and a great hunger to see the world, and do what rich people do. Oh, think of it—Paris! The dream of my life! I nearly fell on her neck and wept with joy!"

"What is she like?" asked Mary.

"Like! Why—large, about thirty, lots of fair hair, blue eyes and beautiful teeth! She is really a very nice-looking woman."

"Married?"

"A widow, I think. Her name is Mrs. Harold Pancoast; good name isn't it? And she—"

"But why does she want you?" queried Edith.

"Oh, because! She says she is tired of being alone. She can't speak French, and I do—in a fashion. And, what is more, she has taken a fancy to me."

"Well I hope it may prove as nice as you think!" remarked Mary dubiously, as she returned to her easel.

Helen sank back against the wall and drew a deep breath. "You girls are the most discouraging mortals!" she said wearily. "I thought you would be delighted to hear that I had at last got something!"

"We are," returned Edith. "I am just as glad as you are, dear, although I shall miss you dreadfully, but I should like to know something more about the woman. Is there any way I can see her?"

"Yes, you can come with me to-morrow morning. I am going to see her about some things she wishes me to keep for her until we sail. She is going to Washington to see her family for two days, and doesn't wish to take anything with her but a bag."

"What sort of things is she to leave with you?"

"I don't know. A trunk, I believe—everything she is to take with her on the ship."

"Why, how extraordinary! What does she know about you?"

"Oh, she took precautions, don't fear! She asked if there was anyone to whom I could refer, and I gave her the address of our old family lawyer, and Doctor Blackmore."

"And she is to hear from them to-morrow?"

"She has already heard from them. She went immediately to the phone, called up a Mr. Ridgway and asked him to go at once to both addresses, and let her know what he learned concerning me. The answer came while I waited, and she was evidently satisfied with it."

"Well, I don't know," murmured Edith, "it looks rather queer to me that she should want to leave her things with an absolute stranger."

"I don't see why," returned Helen. "Naturally she doesn't want to leave them in the boarding-house where she is, and it would be foolish to take them on to Washington for two days."

"What do you think, Mary?"

"I don't know; it may be all right. Did she give you any reference, Helen?"

"Yes, she gave me two addresses in California."

"California! What good will they do you if you sail in three days?"

"Oh, she offered me some in Washington, too, but I said I didn't want them."

"Why did you do that? It was very foolish."

"No, what was the use? I wouldn't bother to write to them, for even if they wrote back that she was the worst woman on earth, I should have to risk it and go with her, unless you two are prepared to support me after I've paid up this week. You know I have been trying hard for two years to get something to do, and this is the only possible thing that has been offered."

"Oh, this cruel poverty," sighed Edith, "it is a thousand times worse for a woman than a man!"

"Especially for one who has never been trained to win her bread," said Helen rising. "Well, I must go home and get my things in order. When will you be finished here, Edith?"

Edith returned to her easel. "Oh, when this beastly thing is done. How I hate doing advertisement work!"

"You'd better be glad you have it to do!" remarked Mary, standing off from her canvas to get the effect of her last touches.

Helen approached the door. "Will you both come up to my room when you return to the hash-house?" she asked as she opened it.

"'It means that woman has intentionally made a dupe of Helen'"

"'Helen stood at the side of the ship, waving the telegram to her friends below'"

"Yes; we will shall be there about six," returned Edith, adding when Helen had departed, "well, what do you think, Mary?"

"I think as Helen says, she'll have to take the chances, that's all."

"But suppose the woman is a bad lot!"

"Well, suppose she is. There is always that risk in every position of that sort, and Helen is desperate."

"Poor little thing! It is cruel to be thrown upon the world like that."

"She is not the only one. We have to struggle, don't we?"

"Yes, but we have been prepared in a way, and she has not, for she was quite well off before her father died. I think it's wicked for people to have children, and not prepare them to support themselves should the necessity arise."

"Well, your opinion is not likely to revolutionize things, so don't overtax yourself by planning to educate parents in the way they should go. Most people are inordinately selfish, and no amount of moralizing will ever change them."

"No, I know, but I mean to go to see this Mrs. Pancoast and find out what sort of a woman she is. I thought the advertisement said an old lady."

Mary turned to her with eyes spread wide in perplexed amazement. "It did. I am almost sure!" she said. "There is the paper on the table. Look! it is marked with a blue pencil."

Edith took up the paper, and found the place immediately.

"'An *old* lady going abroad wishes a young woman to act as traveling companion.'" She read aloud with emphasis, "'must not be over twenty-five, and must be able to speak French. Address with particulars, A. R. P. Herald.'"

The two girls stood looking at one another a moment in silence, which Edith presently broke by saying, "what do you think of it?"

"Of course it may be a mistake in the printing," replied Mary returning to her work. "I don't see what possible reason anyone could have for resorting to such a stupid deception."

Edith took up her palette. "No, there would be nothing gained by it," she replied, "and it must have been a mistake."

The next morning she and Helen presented themselves at Mrs. Pancoast's boarding-house. They were shown first into the public drawing-room, and, after a short delay, the maid returned to ask Miss Mortimer to go up alone to Mrs. Pancoast's private room.

"I don't like this," whispered Edith. "What reason can she have for not wishing me to go."

"Probably she is in the confusion of packing," returned Helen under her breath. "I shall try to get her to come down with me. Wait, will you?"

Mrs. Pancoast greeted her affably, her white teeth revealed in a pleasant smile.

"I am sorry I could not ask your friend up," she said as she led Helen to a chair opposite the one she took, "but I think we can talk better if we are alone. My things are all ready, you see. That is the trunk I want you to take care of for me; it is not large, so I hope it will not be very much in your way."

Helen glanced at the ordinary steamer trunk that stood strapped and locked near them. "Oh, it will not be the least in my way," she returned. "Is that all you are taking?"

"Yes, you see I take very little over, as I always like to get what I need in Paris. There I buy one of those light basket trunks, which are much more convenient for continental traveling, as they are lighter, and every pound costs over there."

"Oh, yes, of course."

"What are you taking; anything besides your steamer trunk?"

"One other; but it is quite small."

"Well, I'll tell you. I should rather you didn't take a steamer trunk. You see it crowds the stateroom so! I shall give you a bag that will hold all you need for the voyage. We are going on the 'Cedric,' which is a five-day boat, so you will not need much. I shall send it to you with this trunk."

"Oh, thank you—"

"Now, I want to tell you to take particular care of my trunk, as there are some very important and valuable papers in it. Lock your door when you leave your room, and pretend in the house it is yours, so the servants may not be tempted to look into it. Perhaps it would be better—to prevent complications—to put your name on it. I shall give you some tags."

She went to a desk and took from it several steamer tags, which she handed to Helen. "Write your name clearly on these, and the number of stateroom—twenty-four, saloon deck. Will you write them here, at my desk? Then I shall know you have made no mistake."

Helen did as she was asked, and Mrs. Pancoast blotted each one as she finished it.

"You see," she pursued, "I may not be able to get back from Washington in time to do anything but rush for the steamer, so I must ask you to attend to the trunk for me, and go on board without waiting for me, as I shall go there direct from the Washington train."

She took an envelope from one of the pigeon-holes, and extracted from it a square printed paper. "This is the steamer ticket," she said, "be careful you don't lose it. I shall put these tags in the same envelope."

A brief silence followed, during which Mrs. Pancoast, fitting the tags into the envelope, appeared to be rapidly reflecting.

"Is your ticket there, too?" asked Helen.

"No, I had them made separately, so you can get on board without waiting for me, to save confusion. It is absolutely necessary that I get this ship, and consequently I have taken every precaution to prevent my losing it."

"What a shame you must go to Washington!"

"Yes, it is unfortunate, but there is a legal matter which must be settled before I leave, and cannot be done without my presence. However, I shall push it and get back in time. There is one thing I want to ask you as a favor. Do not tell anyone that this trunk is not yours, and take it on the cab with you to the ship. I shall be very anxious about it, as the papers in it are of vital importance to me, that is why I don't dare to take them to Washington. If any servant or porter should learn the trunk is not yours, their curiosity might be aroused. Of course, there may be no danger, but I shall feel more comfortable if I know you are taking care of it. Do you promise me?"

"Yes, certainly. I shall guard it as the apple of my eye."

Mrs. Pancoast smiled. "Thank you, but don't appear too anxious concerning it, as that also might incite someone to learn what it contains." She turned to the bureau and opened a small silver belt-bag from which she took a roll of bank-notes. "Here are one hundred dollars," she said, counting it out on the desk. "Put the small notes in your purse to use for your cab and incidental expenses, and the rest put safely somewhere so you will have it in case of accident."

"Oh, I should never need that much!" protested Helen, "I have—"

"No one ever knows," interrupted the other. "We must be prepared for every contingency. You can give it back to me on the ship, but I shall be more comfortable to know you have it."

"Very well, if you think it best." Helen with trembling fingers took the roll of money that seemed like a fortune to her. "I shall be very careful of it," she said.

"Here, put what you don't need at once in this bag and hang it around your neck under your dress," suggested Mrs. Pancoast offering her a small suede-leather bag with a patent fastener. "Then you will know it is safe."

They talked a few moments longer, while Mrs. Pancoast, who appeared to be acting under some inward excitement, put on her hat preparatory to leaving for the train.

As Helen arose to depart she said on an impulse, "Wait a moment! I must have a cab to take me to the station, you may as well drive home in it, and take the trunk and bag with you. Then send the cab back for me." She rang the bell and gave her order, then asked Helen if she would fasten her veil for her.

"I think we shall get on very well together," she said genially, "and as we are both fond of travel, we shall have a good time."

"Oh, I am sure it will be delightful!" returned Helen, adding with some hesitation; "I wonder if you would mind coming downstairs for a moment, before we separate? My friend, Miss Halloway, is so anxious to meet you."

Mrs. Pancoast was hastily throwing some toilet things into a hand-bag; she glanced critically at Helen and appeared to consider before saying quietly, "Certainly, if you wish. But why is she so anxious to meet me?"

"Oh, merely from—sentiment, I suppose! She is nervous about my going off so suddenly with—a stranger."

"Ah, she wishes to see if I am trustworthy, eh?" laughed the elder lightly. "Is she a great discerner of human nature?"

"Oh, no; it is all silly, but if you don't mind—"

"Of course not. Come on, I am ready; we shall go now."

"What do you think of her?" asked Helen, when she and Edith were rolling homeward in a four-wheeler, with trunk and bag on top.

"She is very attractive," returned Edith slowly, "but I must say there is something about her I don't like."

"Oh, nonsense! If you can't name it there can't be anything very substantial back of your suspicion."

"She looks to me like—an actress!"

"Well, what if she is? There is no crime in that, is there? But the idea is ridiculous. If she were an actress she would not be leaving town in the middle of September to travel about the continent, and she would have a maid, not a companion."

"Yes, I know, that is what is so strange. She doesn't look like a person who would need a companion."

"Well, let us be glad that she does, and ask no questions. I am perfectly satisfied. Think of crossing on the 'Cedric'—one of the finest ships afloat? How I wish you were coming!"

"So do I, for more reasons than one."

Helen, glancing at her troubled face, leaned over and put her arms about her. "Don't you worry, dear," she said; "I am quite able to take care of myself, whatever happens, and I shall keep you informed of everything that occurs."

The following two days were spent in getting Helen ready for the voyage, and when the hour arrived for embarking, Edith and Mary accompanied her to the vessel.

"Think of me, a pauper, starting for Europe like this!" said Helen, as after having seen the trunk and bag safely deposited in her stateroom, they stood near the bulwark watching the busy crowd below.

"It is strange Mrs. Pancoast doesn't come," remarked Edith nervously.

"Oh, she will come, don't worry!" Helen returned, too elated to allow any troubling thought to dampen her buoyant spirits that leaped excitedly as she considered the impenetrable and adventurous future lying before her.

"Well, the ship is scheduled to start in twenty minutes, and I don't see any sign of her!"

"What troubles me," remarked Mary in an undertone, "is that man down there—do you see? Pacing up and down, near the gangway."

"Well, what of him?"

"I noticed him when we first got out of the cab. His eyes were riveted upon you, Helen, and ever since he has been watching you like a cat."

Helen laughed. "Oh, you two really should be writers instead of painters," she exclaimed. "Your imaginations are marvelous."

"Well, you may call it—"

"All off for the land!" cried a voice, immediately followed by a shriek from the siren. The two girls wrapped Helen in their arms.

"Oh, I don't like it—I—can't bear to let you go like this," said Edith with tears in her eyes.

"You can get off yet, Helen, if you want to," whispered Mary; "get your bag, and let her trunk go on alone."

"No; what for? I'm not afraid, and there are lots of people on board to look out for me!"

"But she hasn't come! what will you—"

"All off! all off!" cried a steward near them. "Be quick ladies, there's no time to lose!"

After another embrace and some anxious words of warning, the two girls hurried to the gangway, just as the man whom Mary had remarked upon a moment before, pushed past them, and, quickly begging permission of the steward approached Helen.

"Miss Helen Mortimer, are you not?" he asked in a distinct cultivated voice, as he raised his hat.

"Yes," she returned, "I am Miss Mortimer."

"I have a message for you from Mrs. Pancoast. She telephoned me from Washington to come aboard, and explain to you that she most unfortunately missed the train she had calculated on to get her here in time, and she begs that you will await her in London at the address given in this telegram. It came for you in my care—I am her lawyer—but a few moments ago, I had barely time to rush down. The telegram will explain everything. Good-by."

He sped down the gangway, impelled by the urgent cries of men who were preparing to disconnect it from the ship; tethers were thrown off, the siren shrieked once more, and the throbbing of engines began. Helen stood at the side of the ship, waving the telegram to her friends.

"It is all right!" she cried, "I shall write you by the pilot!"

She was on the great ocean—alone. Her strange adventures had begun.

CHAPTER II.

That night Mary and Edith sat in their fourth-story room, talking anxiously of Helen's departure. To them it all seemed very mysterious and inexplicable. How could Mrs. Pancoast allow anything to prevent her getting a train on which so much depended? And then there was certainly something suspicious in the fact of the man they had seen prowling about so long, going to Helen at the very last moment.

"Of course, he may have been trying to ascertain positively if Helen were the one he was looking for," said Edith, trying to catch at a straw.

"But why should he not have gone boldly on board and asked for her," demanded Mary, "unless he had some reason for leaving it to the last moment?"

"Yes, and how could he possibly know it was she, without asking someone?"

"Probably Mrs. Pancoast described her to him."

"But how!"

"I don't know," said Mary in a perplexed tone, shaking her head slowly. "It all looks to be prearranged."

"But what could be the object?"

"That's where the rub comes in. That there is some object is certain, and I now believe that word 'old' was put in the advertisement purposely, don't you?"

"It looks like it," returned Edith, who, clad in a wrapper, was lying full length on the bed, her hands clasped back of her head, her large gray eyes gazing meditatively into vacancy. "Poor Helen, she may find herself in an awful position!"

"She has that money Mrs. Pancoast gave her, she could come back by the next steamer if she finds there is anything wrong."

"Ah, yes, she could, but she never will! That wouldn't be Helen! She has an adventurous spirit that can't be frightened. If she were more timid I shouldn't be so afraid, but she is utterly fearless, and I believe would rather be in a whirl of excitement and danger than have a regular income she could barely get along on."

Mary made no reply; she was sitting at the table looking through a collection of prints, but her serious, uncomely face expressed irrelevant thought.

"There couldn't be a more dangerous position for a pretty girl to be placed in than hers," continued Edith sadly, "especially for one with her temperament. I have always felt she would have a strange and perilous career."

"Well, it is better than drudging along to make both ends meet," muttered Mary. "She will at least have some interest in life!"

"I don't agree with you. Any surety is better than a life of chance for a woman—a young girl! There are so many pitfalls. Supposing she is left alone in Paris without money, what will become of her—surrounded by temptations of every kind in that most wicked of cities! I feel terribly remorseful when I think of it for having let her go."

"Oh, nonsense! How could you help it? If we had stopped her going and she had fallen ill here from worry, what could we do but appeal to strangers for charity, and probably get nothing! She may meet someone on the ship. There must be one or two, among all those nice people we saw come on board, with whom she can make friends."

Edith sat up. "Where is that passenger-list you took from the stateroom?" she asked. "Let's look at it."

Mary opened a small satchel bag at her belt, took out the neatly folded catalogue, and seated herself on the bed, so they could both read it together.

"There are some good names," remarked Edith, when they had read half the list. "That Mrs. Harryman Greeley is Mrs. Van Haughton's sister, you remember, whose wedding made such a social stir? And there's that awful rake of a Charles Lawson. I hope she will have nothing to do with him."

"He is worth millions. If she attracts him it might be a good thing."

"A beast like that? Oh, Mary!"

"There are any number of other men. She may meet her fate!"

"In five days! It isn't very—Goodness how funny it looks to see Helen's name among them all; in clear print—Miss Helen W. Mortimer!"

"But—Do you notice something!" exclaimed Mary with suppressed excitement.

"What!" Edith glanced at her, then back at the list apprehensively.

"Look at the Ps," replied Mary significantly; "Mrs. Pancoast's name is not there!"

They hurriedly ran through the list to the end, then each stared blankly into the other's face.

"What does it mean!" murmured Edith in an awed whisper.

"It means that woman has intentionally made a dupe of Helen, that's what!" returned Mary savagely. "How do we know but that the trunk she entrusted to her has some—some dead body in it, cut up and—"

"Oh, don't! It can't be!" Edith sank back shuddering, and covered her face with her hands.

Mary, noticing that her face had turned pale, added soothingly, "Oh, no; of course, it is nothing as bad as that; but there is certainly some reason for her wanting to get rid of the trunk. And if there is anything—wrong about it, Helen will be in a pretty bad fix when she gets to port."

"We must cable her!" said Edith becoming calm and sitting up. "We must cable her at once!"

"Why, how ridiculous! Where could we cable her? To mid-ocean?"

"No, but I mean the day the ship is due in England—cable her to the ship."

"What could we say?"

"Tell her to come back at once."

"Do you think she would come? Her suspicions will be roused just as much as ours, and if she thinks it wiser to return she will come without our telling her. Besides she can't step over from one ship to another, and that trunk will have to be examined if she lands; and land she must."

They were silent for a few moments, both absorbed in thought, then Edith said miserably, "If we only had someone to advise us! It is awful to be here without a soul we can look to in an emergency like this."

"You might get your devoted George Newman to look into it," remarked Mary, half cynically. "He is a lawyer, and may be able to do something."

Edith flushed slightly. "Yes, he might," she said. "I shall write him now—to-night."

"I wouldn't if I were you."

"Why not? I shall ask him to come up to the studio to-morrow morning."

"I think it would be much wiser to wait and see what Helen writes by the pilot. We should get a letter in the morning. It might be the very worst thing we could do, to let an outsider know about the matter. There may be conditions that would only hurt Helen if they became public. There is no use acting in the dark, and, after all, what have we to go on, except our own suspicions?"

"That's true; it may all be imaginary or merely a succession of suspicious accidents. Helen called out it was all right, and looked bright enough when the ship moved out, didn't she?"

"Yes. I do hope she will explain everything, or at least tell us all she knows in her letter."

"Oh, she will, never fear! Heavens, can scarcely wait for to-morrow!"

Mary got up, yawning. "Well, the quickest way to get to it is to go to sleep," she said, "and I for one am dead tired."

"Do you mind leaving the door open between?" asked Edith, as she too arose to finish her preparations for retiring. "I feel so nervous over that idea of the dead body in the trunk, I'm afraid to be alone."

Mary laughed. "You goose, I am sorry I suggested it." She went into the hall-room adjoining, adding as she lighted the gas, "I shall leave it wide open, but please don't walk around in your sleep and give me the horrors!"

CHAPTER III.

The next morning, not being privileged to order their mail to be brought to their rooms, as there was no bell to summon a servant, they dressed hurriedly and

descended to the basement dining-room where an ordinary boarding-house breakfast, with bad coffee and rank butter, was served to them by a slatternly maid. Their impatience had brought them down too early for the nine o'clock delivery, and they were obliged to linger at table, despite the fact that both were anxious to get to the studio and begin work. When at last the welcome postman's whistle sounded, they went themselves to the iron grating leading to the street, and took the letters. The one they looked for was among them, a fat missive addressed in Helen's writing, and bearing the insignia of the White Star Line.

"Come on, it is here!" said Mary, laying the other letters on a table for the maid to distribute. "Let us take it to the studio."

They caught up some parcels they had laid on a chair, and hurried out by the basement way to the street. It was but a walk of five minutes to their studio, and once within with the door shut they sat close together on the divan, both breathing hard from their haste in mounting the stairs. Edith leaning over her friend's shoulder as she opened the letter and read aloud, the latter following every word with her eyes.

"Dearest Girls:

"What a shame it was you could not have waited on board another few moments! Did you see the man Mary pointed out as having watched me come up to me just before we started? Well he told me Mrs. Pancoast had telephoned him from Washington that she missed the train which would have gotten her to New York in time to make this boat. He also gave me a telegram from her, a long one. This is what it contained: 'Missed train. Go on to London, await me at 18 Princess Square, Bayswater. Reserve room for me there. Shall follow by next steamer. Be careful of trunk. Destroy this, and say nothing to anyone concerning me or plans. This is imperative, for your own good. Great harm may come if you speak.'

"This was all, my dears, not even a signature. What the mystery is I cannot even guess. I am beginning to feel this trunk contains something dreadful, and am half afraid to sleep with it in my room. However, I still have faith in the woman, for if there was anything really wrong, why should she have troubled to telegraph me? I believe she means to meet me, but I also believe she never intended to sail with me, for her name is not on the passenger-list, and, on examination of my ticket again, I see it is made out to me as the sole occupant of number twenty-four. Another thing that mystifies me is that the telegram I received was written by hand, very carefully, not as telegraph people generally write, and I have a suspicion it was never sent over the wires.

"Of course, this may not be so, and we may all be exaggerating the matter absurdly, but I do feel deliciously like the heroine of a dime novel, being slowly ensnared in a web of mystery! I am not in the least afraid, and since I am launched upon it I shall see it through, so I beg of you both not to say a word to *anyone* on the subject, for if we let it go on smoothly, as it is planned, it will probably turn out all right; while if anything is said to start other people investigating, I may get into no end of trouble. As it is, I think the game is well worth the candle, so far. This ship is superb, and the people on board charming. I feel like a princess, and only wish you two were with me. You would delight in it. There are any amount of good-looking men prowling about, and one—an Englishman, I think, who is simply adorable! He was sitting where I am now writing when I came into the writing saloon, and got up to give me his place. Wasn't it dear of him? He looks something like the actor Hackett, only more so! And has the most heavenly speaking voice! I can't tell you any more about him, as I only saw him a moment, but I hope he will sit near me at table.

"That disreputable, g o o d - l o o k i n g Charles Lawson is on board, and he had the impudence to speak to me on my way down here from the deck. He is the one element in the situation I am afraid of. He has the head of an Adonis, but looks awfully dissipated. I saw him pass the door a moment ago with Mrs. Harryman Greeley, who seems to be crossing alone. I only hope he will devote himself to her and not trouble me. However, I am ready for anything! Life never seemed so worth living! I feel like a bird that has got out of a horrid, little dirty cage and am afloat on my own wings! Oh, it is glorious to see the wide, fresh sea all about me, and not hear those maddening motor horns of New York, that always send the blood to my brain with murderous envy. To feel myself surrounded by nice cultured people, instead of those awful frights at the hash-house, and to know I shall sit at a decent table, and have good butter for five whole days! Yes, it is worth the risk of what is to come, if there be any risk, and my only regret is that I am separated from you two girls.

"Don't be worried. I sha'n't get into any trouble, for I have a level head in spite of my crazy nature, and already I have made friends with an awfully nice woman whom I can count on as a friend, I think, during the voyage. She is a Mrs. Watson, and is taking her daughter to Paris to study singing. I have not seen the daughter yet, but Mrs. Watson showed me where to come to write, and we had a little talk in the meantime. She is sitting at the next desk to mine now, and speaks to me occasionally. The English Hacket-looking individual has at last got a place to write, and is sitting just opposite to me. I think he must be engaged, or in love, for he is writing with every sense centered on his page, and has never once glanced in my direction since he sat down. It is just my luck! I suppose I shall fall desperately in love with him, while he is dreaming of the girl he left behind him!

"The only other person I have noticed so far, is a very extraordinary man with the eye of a fish-of-prey, if there is such a thing! thin and dark, with grayish hair, but not more than thirty, whom I caught eyeing me very attentively while I stood on deck watching you two fade out of sight. He came up close while I was talking to Mrs. Waston, and appeared in this saloon a little while after we entered it. Twice he has come to my desk; once to ask if there was another pen, as his was bad; and the next time to get a large envelope, although I am sure he had everything where he was sitting. Each time he came, I saw his eyes scanning my letter, and the second time I deliberately covered it with the blotter, to show him I noticed what he was doing. He is either the most curious creature ever born, or else he has some reason for wanting to know to whom I am writing, for his persistence is most marked. I have taken an awful dislike to him.

Well there is no more to tell you now, dears, but I shall write you every day until we land, and post it the first moment I touch foot on shore, so you will know everything that occurs during the voyage.

Lovingly, Helen.

P. S. Unfortunately I could not get a seat at the captain's table, but am to sit at the table of the first mate. I do hope the good-looking unknown will sit there, too, and near me! It would be quite delightful, even if he is engaged. Write me at 18 Princess Square, Bayswater, London.

CHAPTER IV.

For sixteen days Edith and Mary pursued their monotonous routine of labor, having marked on the large pictorial calendar hanging in their studio the date they expected a letter from Helen.

It arrived the day following that upon which they looked for it, one so bulky it had necessitated three stamps.

"Wednesday, September 8th, 11 P. M.

"Well, my dears, the first day is over, and I shall proceed to tell you all that has occurred. First, shortly after I had finished my pilot letter to you, I was sitting talking to Mrs. Watson, when the gong sounded for luncheon. Miss Watson joined her mother, and remained with us until the second gong. She is very nice, tall, refined, and rather good-looking, though she has red hair and seems to have a very good opinion of herself; the sort of girl that talks at a gallop, and keeps one always on the qui vive to trip her up. I don't like her as much as her mother, but she may improve on acquaintance, when the effervescence of her egotism is somewhat exhausted. We were hoping we might sit near together at table, but as it proved, they were at one end, and I at the other—and what do you think! My adorable hero, whose name, by the way, is Guy Halifax, was sitting right opposite Ethel Watson!

"I was disappointed when I saw it, but even more so when that wretch I described in my first letter, the mysterious individual who seemed to take so much interest in me, took the place on my right! Wasn't that the irony of fate! However, he made himself very affable, talked incessantly, and, I must acknowledge, interestingly. He seems to know everyone and everything; he is like a living encyclopedia, and to converse with him is a liberal education. He is a handsome man, in a way, but there is something uncanny about him. He never laughs aloud, but has the wickedest smile I have ever seen on a human face; it is like the grimace our old cat used to make when she saw a dog, and he accompanies it with a nervous little sound like a hiss that makes my blood curdle. He says he is an artist, and is going abroad to do some sketching; but he doesn't look the least like one. I don't know who he looks like, he is so entirely different from any man I have ever known before. He talks like an educated man, and yet there are little characteristics that show he is not a thorough gentleman. He is too impressively polite, and once he nudged my elbow, to attract my attention to a woman on the other side of the table who was drinking too much wine and acting foolishly.

"Another thing that is strange about him is, that, although he has very easy manners and is quite devoid of self-consciousness, he appears to be awfully ashamed of his hands, which seem quite nice enough, although he uses the left one always where he should use the right. Yet every time I look at them, he stops what he is doing, and fingers under the table for his napkin.

"On my left is a rather good-looking French woman, who is constantly leaning over me to talk to this creature, in the funniest English you ever heard. Sometimes it is almost impossible for me to keep my face straight.

"Well, after lunch, this man, whose name he informed me is Barrington, on the list, George R. Barrington, kept as close to me as a sick kitten to a hot brick! I was hoping Halifax would come to talk to me, but Ethel Watson held to him, and made him sit with her on the promenade deck. I think she is the kind that once she gets her clutches on a man there is no chance of his escaping!

"I walked up and down with Barrington right past them until I thought I would drop, and all the time I heard her voice rattling on to beat the band. Barrington told me some of his experiences out West, where he was for some years ranching, and his stories made my flesh creep. If he was telling the truth he must be a very courageous sort of creature; but somehow I can't believe anything he says. Barrington continued to tell me stories until late in the afternoon, then I left him, making the excuse I wanted to take a nap in my stateroom. Think of me taking a nap!

"On the way down I met Lawson, who said, "where are you going, my pretty maid?" with a winning smile, and I replied coldly, "to my stateroom." He said, "Why? That is a lonely place to retire to! Wouldn't you rather go out on the bow and get some fresh air?"

"I told him I had had all I wanted of fresh air, and was tempted to add, more than enough of fresh men, but of course I didn't. One whole hour I stayed down here, although I hate to be in my stateroom, but I did not wish that Watson girl to see me go up alone, she has such a triumphant air since Halifax has been with her, which he can't very well help under the circumstances! I suppose it is very evil of me, but I am determined to cut her out, if it is possible.

"Everyone dresses a great deal in the evenings on this ship, and I only have those two gowns besides the one I wore coming on. For dinner to-night I donned my champagne-colored canvas, and really I looked very nicely, for the damp air makes my hair more wavy than it is on shore, and it does not fly around. I was ready when the first gong sounded, and knowing that Ethel Watson must have come down to dress, I slipped my ulster on and went up on deck.

"Halifax was standing alone on the promenade deck, and he came up at once, with a slow English lounge. He too must have got ready early, for he stayed with me until the second gong, and we entered the dining-room together. You should have seen E. W.'s face when she saw us; it was delicious! Halifax was awfully nice; talked a lot about himself, of course, but, being a man, he probably enjoyed doing so more than if I had attempted to entertain him, which was proved by his asking to see me after dinner. He left

"'I was beginning to hope . . . . . when that beastly Barrington came up and deliberately attached himself to me on the other side'"

the table when I did, but so did E. W. talking a blue streak to him all the way up the stairs. I went out on deck and stood by the bulwark a moment. Halifax joined me, and remarked upon the lovely evening, but E. W. lingered with us, and told a long-drawn-out story about a storm she had experienced on one of her trips over. She even walked with us up and down the deck, and I couldn't get a word in edgeways. Halifax didn't seem particularly interested in what she had to say, as he only grunted now and then, saying nothing to encourage her to stay, and I was beginning to hope she would see she was *de trop*, when that beastly Barrington came up and deliberately attached himself to me on the other side. Of course, this gave E. W. the opportunity she wanted, and I soon found myself alone with Barrington.

"He asked me to sit with him in a comfortable little corner, where we could hear the music, and as I knew there was no chance of seeing Halifax again that evening, I consented. Well, my dears, I can't tell you what a time I had balking his questions. Instead of talking of himself as before, he discussed me, asking where I came from, why I was traveling alone, who I am going to meet, and many other inquiries, all so subtly veiled as to not suggest he had any purpose in doing so. I don't know why it is, but I feel he has some reason for this disguised curiosity, and I was very careful not to say anything about Mrs. Pancoast or the trunk.

"Well this is all that happened to-day; to-morrow there may be new developments."

"Thursday, September 9th, 11 P. M.

"This morning Barrington was at the table when I came in to breakfast, and he remained with me all morning. It is too awful having him next me at table, there is no chance of escaping him. But I must tell you a curious thing that happened just before luncheon. He and I were on our way to the dining-room when an oldish man, I had not seen before, got up from a chair in the hallway, or whatever that place near the stairs is called on a ship, and was about to go down, when he caught sight of Barrington. He paused with a smothered exclamation, then said, 'Hello, Morse! Why—'

"Barrington turned quickly with a funny look that made the other break off suddenly, then he replied quite easily. 'Hello, old chap, I didn't know you were on board.'

"The other man answered, 'No, I didn't come up the first day; felt rather seedy. Always do for a day or two out. Where are you bound for?'

"'London first, then the south. I'll see you after luncheon. At what table are you?'

"'The fourth from the door.'

"'Oh, that's bad!' said Barrington. 'Thought you might be at mine. Well I'll see you later,' and we went down, the older man following more slowly.

"Now, I heard the name very plainly—Morse, and I know Barrington's first name is George, he told me so, and it is George on the list, so of course I was very much puzzled by this, and another point which looks queer—why didn't Barrington know the other man was on board if his name is on the passenger-list?

"He began to talk quickly of abstract things, but when we were seated, I asked him why his friend had called him Morse.

"'Oh, that is the nickname he gave me a long time ago,' he replied. 'I shall tell you how it came about.' Then he told me a long story, how when he was ranching in the West this man had taken him in the dark for an enemy of his by that name, and had shot at him in a lonely place, away from all signs of habitation. He made a very good romance out of it, but I didn't believe one word, and when he was finished I asked him how it was he did not know his friend was on board, as his name must certainly have been listed.

"'Oh, I never look at the passenger-list,' he replied, 'it doesn't matter a jot to me who is on board, so long as I can find someone agreeable to talk to, and fortunately the fates have been kind to me this trip, in sending you.'

"'What is his name?' I asked, ignoring this.

"He bent over an apple he was paring, and said, 'Look at that! Do you see how the color of the skin has gone through to the apple? I never saw anything like that before, did you? It proves there must be some strong coloring matter conveyed by the action of the sun on the juices.'

"'What is your friend's name,' I persisted; 'that interests me more than the apple.'

"'Really! I must tell him! Only he has such a good opinion of himself now, I'm afraid it will make him too vain.'

"He was eating the fruit quickly, talking all the while, evidently to avoid my question. 'He's an interesting looking chap, isn't he? And he isn't half the age he appears to be. Do you know, he has had a mighty hard life, that man; roughed it since he was twelve. I don't believe there ever was a man who has had to make his way through such odds. I could tell you some incidents of his life, things I've witnessed myself, that you could hardly believe to be true. If you are finished, let's go up on deck, I think the less time we spend here the better.'

"'I want to know your friend's name, you haven't answered me,' I said.

"Barrington had put his napkin down, and turned his chair, 'The name I've given him isn't very pretty!' he replied with a long hissing smile, 'I call him Jackal! When you know him better you will recognize how appropriate it is. Will you come? Or—'

"'No, wait a moment, I am not finished,' I said, wishing to hold him in order to gain my point; but if you'll believe it, he got up saying, 'Oh, I can't, it is too stuffy here! I shall wait for you on deck.' And he was out of the saloon before I could change my mind. I wanted to go after him at once, but it looked so pointed I was afraid of what people would think, so I waited, although it was giving him time to discover what name his friend had listed under, for I now feel perfectly sure both of them are going under false names! When the Frenchwoman next to me got up, I followed her and hunted on both decks for Barrington but he was nowhere to be seen. The Watsons came up presently with Halifax, and Mrs. Watson joined me, but Ethel reminded Halifax of a promise he had made her to explain the workings of the log-book, and took him away immediately, leaving me with her mother. I know that poor man will be entangled before the voyage is over! E. W. will hypnotize him. Already he has an air of belonging to her, and obeys her in the most submissive manner. It is the one thing I don't like about him; but then proximity is such a powerful constituent in the subjection of man. Isn't that worthy of Marie Bashkersef? But really, I believe that although she is unattractive in many ways, her eyes are distinctly green and small, and her teeth are not good, Ethel Watson will have Halifax all hers before we land. For my part I don't care, for if he has no more independence than that she can have him! I can't endure a man who subjects himself so easily to a woman's wiles.

"Well, I sat with Mrs. Watson for an hour or two, hearing her rhapsodize over her daughter's wonderful voice and the brilliant prospects ahead of her. I endured the proud mother's discourse as long as I could, then came down here, and really took a nap, for the salt air makes me terribly sleepy. After dinner Barrington joined me as usual, and he had his friend's name pat when I asked for it, Henry W. Worrendale. He chaffed me a good deal upon my anxiety to learn it, and kept me up until after ten telling me thrilling tales of his experiences with Worrendale, while they were associated on a cattle farm in Texas."

"Friday, September 10th.

"Well this has been the most exciting day of all, my dears, or rather the latter part of it has. The morning passed quite dully, I felt rather depressed, and wishing to escape Barrington, had breakfast early in my berth, then went on deck and settled myself with a book in an out-of-the-way spot. When he came up I answered him very shortly, and he took the hint and left me in peace. Ethel Watson played shuffle-board with Halifax and two others on the lower deck—she never thought of asking me! Indeed I have not exchanged more than a dozen words with her since we started. She nods when our eyes meet, and smiles triumphantly when she passes me on Halifax's arm—as if it makes any difference to me whether she possesses him body or soul or not.

"After luncheon—meals are the only means of marking time on board ship—Barrington told me he was getting up a card party, and asked if I wouldn't join. 'The Watsons are going to play,' he said, 'and several others, it will help to pass the time.'

"I agreed, but when it come to the point of playing, Ethel, who had evidently made some prearrangement with Halifax, excused herself on the plea that as the sea was growing rougher she was afraid to remain below, and she and Halifax went off together. Barrington found two others to take their places; and we played Hearts in a very amateurish way. Worrendale was with us, and two or three times Halifax attacked me with some of the very questions concerning myself that he had asked previously, and I became terribly confused with the dread of not answering them as I had before. To protect myself against what I believed was a deliberate plan to trip me up, I had to ask him not to talk to me during the game, as it hampered my playing; at which he indulged in one of his hissing smiles."

Here the reading was interrupted by a knock at the door, and the maid entered with a card which she gave to Edith. A quick flush suffused the girl's face as she read it.

"I shall be down immediately," she said, turning quickly to hide her face. "It is Newman," she added to Mary, when the maid had withdrawn. "I shall try to make him go early. Do you want to finish the letter, or will you wait until I come up?"

"Oh, I shall wait if you like," returned Mary, gathering the closely written pages together, "but he is always coming just when—However, I'll write my letter to McClure's, and pack my drawings, as they must be delivered early to-morrow. But don't let him stay all night, we are just in the most interesting part of the letter."

"No, I shall tell him I'm tired," returned Edith, going to the door, "and be up by the time your things are ready."

Edith returned, as she had promised, shortly after Mary had got her drawings carefully packed, and had written her letter to the magazine editor.

The latter, in her wrapper, was sitting by the bureau brushing her hair when her friend entered, and she looked into the radiant face critically.

"Well, any new developments?" she asked.

"No, but he is a dear! He has the sweetest nature, and is so—"

"Oh, I know, he *is* nice; but get your things off, and let us finish Helen's letter comfortably. I have been wild to go on with it."

"You're an angel to wait for me," said Edith appreciatively, as she rushed out of her gown. "I have been just as impatient as you, and could hardly get my thoughts off of it."

Mary was now smoothing out the thin sheets of Helen's letter. "Shall I read it aloud while you undress?" she asked.

"Yes, do. That is a good idea. It was page fourteen, wasn't it? I wonder if she got Halifax away from the Watson girl."

"What I am interested in the most," interrupted Mary, as she glanced through the written pages, "is what Barrington is aiming for. That's the most curious—here it is! You remember she was playing cards."

"Yes, go on!"

"'At which he indulged in one of his hissing smiles,'" read Mary, adding, "that is where we left off!" and continued to read:

"I got awfully tired of the cards, and was very much relieved when Mrs. Watson said she was too sleepy to play any more, and went down to take a nap. Barrington and Worrendale both accompanied me to the deck, and as I wanted some exercise, we paced up and down, the three of us, from one end to the other of the promenade deck.

"'Do you know,' said Barrington presently, 'you have contradicted yourself twice, Miss Mortimer.'

"'How?' I asked.

"'Yesterday, when I asked you if you were going to visit in London, you said you were; and just now, when I asked you again, you said no.'

"'Well, I am, and I am not,' I returned, trying to save myself. 'Of course I am not going to be altogether a guest, but I am going to visit at a house where—well, where I shall pay my expenses.'

"'Oh, a boarding-house! In London proper, or—'

"'What was the other contradiction?" asked, purposely interrupting him. I shall write you all my conversations just as they occurred, without designating each person, as it takes so much time, and I am dead sleepy to-night.

"'You told me yesterday you had an intimate friend who was to meet you in London,' he said, 'and a moment ago, you said you do not know a soul there.'

"'Well that is true, too.'

"'How? I can't see how it could be possible.'

"'Well, I really don't know why you should! You seem to be taking a very unnecessary amount of interest in my plans. I must say I fail to see why I must explain them to you.'

"Worrendale uttered his wild ringing laugh, that really is just as I imagine a jackal would laugh, and I can understand very well why Barrington gave him that name.

"'Barrington is the most curious chap in the world,' he said. 'He certainly has the bump of inquisitiveness as much developed as any woman.'

"'No, it isn't curiosity,' said Barrington, 'but there is something romantically mysterious about Miss Mortimer that excites my interest.'

"'There is much more mystery about you,' I returned.

"'About me!' He hissed with apparent amusement, but I noticed that he glanced swiftly at Worrendale with what seemed like apprehension. 'I've been accused of having many strange traits, but never before of being mysterious. Eh, Worrendale?'

"'No, I have never heard anything so interesting being applied to you.'

"'Haven't you?' I returned as easily as though I were speaking to children. 'Well, to me you are both very mysterious!'

"Worrendale indulged in another deafening laugh, and stepping behind me, slapped Barrington on the back. 'What do you think of that?' he cried. 'You needn't be so puffed up old man, I'm mysterious, too?'

"Worrendale, although a rather distinguished-looking man, is distinctly the commoner of the two. He has a way of swallowing his words, and cutting them off, that reminds me of one of those Bowery characters sometimes impersonated on the stage. I felt so disgusted by his loud laughter and manner, that I wanted to get away from them both, and never to see them again.

"'How are we mysterious?' asked Barrington; and I said wearily, 'Oh, I don't know, you just are! Or you seem so to me. I think I shall go down now, I am tired walking.'

"'Oh, don't go yet!' Barrington said, I thought rather too anxiously, which I recalled later as significant, as you will see. 'Come and sit down,' he added, 'Worrendale and I shall keep you amused until dinner.'

"But I was determined, and left them. And now comes the exciting part! When I got to my state-room, I had the funniest feeling, as though there was someone in it. Of course it was still bright daylight, so I could easily see there was no one; but the place had an air of having been lately occupied. The impression assailed me as soon as I entered, and although I tried to quiet myself by arguing that it must have been the maid, there was something that made me confident it was not the maid. This something was a very delicate fragrance that seemed vaguely familiar, although it was not strong enough to distinguish. It was but a faint whiff, as though a bottle of very fine perfume had been opened in the room for an instant, and quickly corked again. I knew I had nothing like it, and after standing for a moment sniffing and trying to make out what it was, the idea came that perhaps the stewardess had, in cleaning up the washstand, used some pink, highly scented soap supplied by the ship.

"Then I did the very most foolish thing I could have done; I took out the pink soap and smelt it. The fragrance was entirely different from that in the room, and it was so strong I absolutely lost track of the other, and could not get even an idea of it again. Yet that someone wearing that perfume had been in my state-room seemed certain, and, with a qualm of terror, I took my hand-bag from under the sofa, to see if all that money Mrs. Pancoast had given me had been stolen. I had taken the little leather bag, that contained most of it, from my neck the evening before, because, as you know, my blue dress is cut low, and the bag showed through the lace guimpe. When I looked into the satchel my terror increased, for there was every evidence that someone had been in it. Everything was topsy-turvy, and you know I keep my things neatly.

"Well I can tell you my hands trembled when I took out that little leather bag! It seemed just as full as ever, and when I opened it I found to my delight that every bank-note was there safe and sound. I put it around my neck at once, vowing I should never take it off again. When it was safely hidden away under my blouse I looked again into the satchel, wondering if I could be imagining that the things had been disturbed; then, my dears, I discovered what had been taken—*The telegram Mrs. Pancoast had sent me.*

"I had kept it, in spite of her request that I should destroy it, because I wanted to copy the address in London she gave me, and I had not had sense enough to do it at once. Now it is gone, and I am not sure that I remember the address!"

"The Strange Adventures of Helen Mortimer" will be continued in the December 1st issue of FARM AND FIRESIDE.

A THANKSGIVING DISCOVERY

BY HILDA RICHMOND

"JUNE Fielding! Have you lost your senses? Don't you know that Horace Wales is a poor student working his way through college? You have no right to let him be the moth for your candle by encouraging him the way you were doing just now." Margaret Hites spoke laughingly, but she meant every word.

"Don't scream! He'll hear you," said June, dropping down on the end of the bench in the campus. "Girls, this is too glorious a day to be in dull class-rooms. Let's run off to the woods and gather hickory-nuts."

"You seem to have woods and country and things rural on the brain lately," said Cecelia Reader, looking up from her book. "Do you know, Margaret, I heard her asking Horace all about a country Thanksgiving yesterday, and you would have thought from the rapt look on her face she was enjoying every word he said. It's a pity someone don't warn him, for he'll fall a victim sure as fate. June, why can't you be content with the young men who are hardened sinners in the flirtation line, so to speak, and let the verdant youths from the rural districts alone?"

"I was enjoying every word Mr. Wales said about Thanksgiving, if you must know," retorted June. "I did intend to keep it a secret, but you girls are like professional detectives. All my life I've wanted to go

"'Of course country people have guests who come for chicken rather than any real desire to be friendly'"

to an old-fashioned Thanksgiving dinner, and I think it is in sight right now. I feel certain Mr. Wales will ask a crowd of us to go to his home for the day, with Mrs. Clare for chaperone. Now, what do you think of that? If you don't behave I shall advise him not to ask either of you." She paused to see what effect this dire threat would have, but the girls did not seem much impressed.

"I don't see anything very attractive about going out to a farm for Thanksgiving; do you, Margaret?" asked Cecelia. "I never visited on a farm, but I've always heard they are rather doleful places."

"You need not go to any particular trouble to have my name included in the list of guests," said Cecelia. "I don't know what an old-fashioned Thanksgiving dinner would be like, but our Matilda cooks first rate, and we always have a fairly decent dinner on the great day ourselves."

"I'll remember both of you," said June loftily. "Horace's folks live in a log cabin built in pioneer days, and they celebrate the day just as they did years ago. It seems he is the youngest son, and his mother told him to ask some of his friends for the day, if he cared to. If I were as deficient in knowledge of our great holiday as you girls, I wouldn't care either where I put in the time. Didn't you ever read about the great feasts and the rooms decorated with pumpkins and fruits? I can just see it all from the stories I've read."

"With your imagination you will have trouble some day," said Margaret feeling her friend's pulse, while Cecelia yawned. "Roast turkey is roast turkey wherever you eat it. Come on, or we'll be late for the two-thirty recitation."

Very cleverly did June cultivate the acquaintance of the manly young student from the country the weeks that followed. Without neglecting his studies he managed to be with her a great deal of his leisure time, and the girls threatened to write an anonymous letter telling of June's propensity for "collecting trophies," as the envious ones called her little conquests.

While some of the girls in the dormitory joked about the affair, and others declared it a mean shame, one young lady from the country felt exceedingly sorry for Horace Wales. Not that she was an intimate friend, by any means, though she knew him as well as any of the students she had met in the thriving college town, but she was from the country herself, and did not like to see the young man become completely infatuated with the lively girl.

In class, on the campus and in the dormitory Florence Morgan heard allusions to the coming Thanksgiving dinner. During the few times she was alone with Horace she always led the conversation to the subject of life in the country, and managed to give him a few plain hints about the other students, but he seemed not to understand.

"Lovely weather, isn't it, Miss Morgan?" said Horace genially, as he walked to Science Hall with her early one November morning. "It really seems like spring if we keep our eyes off the falling leaves."

"It is a pretty day," admitted Florence, "but I always have unpleasant memories of beautiful fall days. We live quite close to town and people are always dropping down upon us unexpectedly to stay for dinner when chickens and vegetables are in their prime. I always like to see the dull, dripping days, for that means no company." She felt rather guilty to give him this inhospitable picture, but considered that it was all for his good. Only the night before the girls had been wondering about the cabin and its furnishings in a way that made her blood boil, though she said nothing.

"Of course country people have guests who come for chicken rather than any real desire to be friendly, but there are always enough delightful people who make us forget all our troubles. I am trying to make up a little crowd to visit my home on Thanksgiving, and shall be glad to have you go with us. Mrs. Clare has consented to be the chaperone, and I hope everyone will enjoy the day."

"Thank you," said Florence searching in her brain for an excuse. She had no mind to go out with the city girls and watch them ridicule the occupants of the log cabin in an underhand manner all day. "I am sure it will be a delightful day for all of you, but I shall have to decline your kind invitation."

"Why can't you go?" asked Horace Wales bluntly. "I insist upon having you with us, unless you have a good and sufficient reason." It wasn't according to the rules of polite society for the young man to urge an acceptance after her refusal, but he did it, and Florence was more confused than ever.

"I—You—I imagine you have several other young people, and maybe they will dress stylishly," stammered Florence. "I am only a poor student working my way through school and am not in society at all." She felt all the time that this was absurd, but the keen-eyed young man was waiting for some sort of an answer, and that was the best she could give.

"I am paying my own expenses, too," said Horace quietly. "I think you can scarcely be said to be in society if you attend a Thanksgiving dinner in a log cabin. You will go, won't you?"

In spite of many insinuations and offers of help, Horace made up the list of guests without help, and June had to submit, though she pouted a little privately over the name of Florence Morgan. "It will be a sort of hash party," she said to Cecelia, "but we don't have to be friendly with them afterward."

"I don't see how you can drop Horace Wales, June," said Cecelia. "You have encouraged the poor fellow frightfully."

"Encouraged him to get up a Thanksgiving party, yes, but nothing else," said June carelessly. "I'll let him down easy, Sissy, never fear."

"Maybe you won't want to," said Cecelia sagely. "Horace Wales is a nice young man.

"True, but the world is full of nice young men," observed June. "If he had money and position I might overlook the cabin. How silly we are! I'm going to have a good time Thanksgiving and then dispose of him. It is absurd to suppose he is in earnest just because I have said a few pleasant words to him."

Mrs. Clare found her eight charges at the station when she arrived there the morning of the last Thursday in November. There was a hint of winter in the air, but the sun promised great things for later in the day, and the young people were in high spirits. That is, all but Florence, who felt unhappy and out of place. Margaret, June, Cecelia, Florence, three young men and Horace constituted the party, besides Mrs. Clare, who was a charming young matron ready for fun of the right sort. An hour's ride brought them to the station, where a hack was waiting to take them to the farm.

"How primitive!" whispered Cecelia, as Horace got out to open a gate so the hack could drive up the lane. "When you take possession, June, see that the carriage drive is improved."

June gave her a look that should have withered her, but Horace was climbing back into the hack and there was no time for words. "There is the house!" he cried, pointing to a big, two-story log structure surrounded by forest trees. "It looks exactly as it did the day my mother went there as a bride, she says, and we always intend to keep it so. They were married on Thanksgiving and walked across the fields for their wedding journey."

Buggies and carriages stood in the barnyard, and from the house came a troop of children to gaze at the strangers. Horace led his guests into the house, and a motherly looking old lady came forward to make them welcome. "I am glad to see you all," she said, shaking hands in hearty fashion. "My children's friends are welcome to our home."

"Is it like your story-book Thanksgiving, June?" asked Margaret as they stood warming their hands at the old fireplace. "Isn't that corn artistic?"

"It is lovely," said June with enthusiasm.

From the old rafters hung red, white and yellow corn, ropes of onions, festoons of scarlet peppers, branches of bitter-sweet, and the delicate wild clematis, while the old mantel was banked with glowing berries and leaves. Jack-o'-lanterns perched in dark corners, and the whole place was eloquent with good cheer and homely abundance. The light danced in the fireplace, throwing fantastic shadows on the old settle, the spinning-wheel, the fiddle-backed chairs, and all the things that spoke of old-time comfort.

"Do you live in a log house, too, Miss Morgan?" asked Cecelia. Florence was charmed with the beauty of the old house and its furnishings, and her face showed her enjoyment.

"No, we live in a small frame house," said Florence. "Isn't this perfectly charming."

"Very pretty," said Margaret, hiding a yawn. "When do you suppose we are to start home?"

"Not till after dinner, I hope," laughed June. "Something smells delicious."

"Let me help?" said Florence, feeling out of place among the well-dressed girls in her plain school dress. "I can polish those apples as well as not."

"I can provide tasks for all of you, if you want them," said Horace's brother, who seemed to be in two places at once. "I'm getting my hands too full."

"I'm very comfortable," said June piling the cushions at her back, and making a pretty picture with the firelight dancing over her fair hair. I don't enjoy working."

So Florence went off to the big kitchen, leaving the girls to enjoy themselves with the young men they knew, and very soon dinner was announced.

"I've heard a great deal about Thanksgiving dinners in the country, but I never dreamed of anything like this," said June, gazing at the long table loaded with all the products of the farm that could be prepared for eating. "There is enough food here for a hundred people, I am quite sure."

"We always try to have enough," said old Mr. Wales. "Maybe you never spent the day in the country."

"I never did," said June, solemnly watching the long procession of loaded dishes moving down the table. "All I can say is that the stories didn't tell half. You must have a large family, Mr. Wales."

"Eight children—all living," said the host proudly. "They all worked their way through college without help, and they're all well settled in life, if I do say it myself, that is all but Horace. He's the only unmarried one in the lot."

"I have been wondering what those things hanging over our heads are?" said June, hastily changing the subject, for Cecelia was wickedly looking at her across the table. "I never saw anything like the decorations you have."

"Dried apples strung expressly for the occasion," said Mr. Wales. "It wouldn't seem like Thanksgiving without the peppers and pumpkins and dried apples. This house is like it was when mother and I first came years ago, and I want it to always stay this way. It is very dear to both of us—yes, and the children, too."

At last the last waiter finished a leisurely dinner, and the dishes were washed by some of the daughters of the family. The children began to be restless and tease to go, but the older people seemed content to linger about the dying fire. Finally Mr. Wales carefully covered every spark and coal with ashes, and everybody began putting on wraps, though it was only twilight. "Are you all ready?" asked the host, while Mrs. Wales wiped away a few tears. The city guests looked

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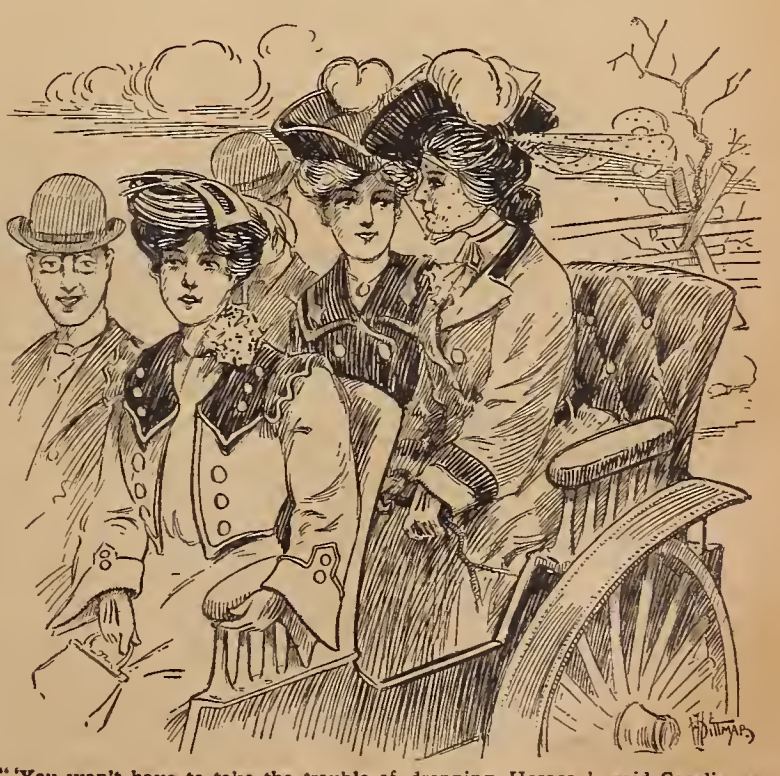

"'You won't have to take the trouble of dropping Horace,' said Cecelia, as they rumbled back to the station"

How the Farmer Lives in New England

By J. L. Harbour

It is told of a Western farmer going to New England for a visit, and leaving behind him his corn and wheat fields of two thousand acres, that he wrote home to his friends: "Here in New England they call six hens and a rooster and four acres of land a farm, and a part of the four acres is graveyard." Of course he was exercising his Western prerogative of humorous exaggeration, but the fact remains that the New England farmer cultivates fewer acres of ground than the Western farmer, and he raises different crops. He has more woodland, and in some parts of New England his chief crop is hay, which he converts into cash through the medium of his dairy. There are so many large cities in New England that the demand for milk is great, and hundreds of New England farmers derive their chief income from the milk they ship to the cities. The milk-train runs over every line of railroad in New England, and it is not uncommon for the New England farmer to get up at four in the morning, milk ten or fifteen cows and get the milk to some station from two to six miles distant by six in the morning. This is no "cinch" on a January morning, when the thermometer is ten degrees below zero, and the wind is sweeping down from the New England hills with an edge like a blade. There is sure to be a great deal of snow, and winter "lingers in the lap of spring" several weeks longer than in other parts of our country.

NEW ENGLAND FARMERS' CHIEF DEPENDENCE

The harvesting of his hay occupies most of the time of the farmer in some parts of New England, and this is one crop for which he can always depend upon getting a good price if he wishes to sell it instead of feeding it to his stock. In New England, as elsewhere, good farm-hands are scarce, and a first-class man will be paid as much as twenty-five dollars a month, with room, board and washing. Really superior men are hard to find at this price, and the good American farm-hand threatens to become extinct. He prefers the mill or the shop or the store, where the hours of labor are shorter, and his Sundays and, in many places, his Saturday afternoons, are his own. He does not make any more money in the long run, and very often is not so well fed nor so well housed as on many of the farms, but he has before him the opportunity of bettering his condition in some places, although a great many of his kind who forsake the farm for the town or the city never do better their condition; and some of them fare worse in both purse and health than they would have fared had they remained on the farm.

The farmer in some parts of New England depends largely on foreign help, as a great many Polanders have come to this country in recent years to work on the farms. They are very strong, and work for small wages at first, but they are not slow in demanding increased wages when they have learned the American ways of farming, and come to know their own value to the farmer. Their wives or daughters or sweethearts often come with them to take places in the kitchens of the farmers. They are very industrious and very thrifty, and many of them soon come to own farms of their own. One will find a good many of these "Polark" farmers in Massachusetts, where both the men and the women will be seen working in the fields with a capacity for work beyond that of the average American man and woman.

The farmer's wife finds it as difficult to secure good "help" in her kitchen as does the city dweller. And the farmer's wife in New England is greatly in need of help in the summer-time when her cares are augmented by the arrival of the summer boarder, for the influx of "summer people" to the New England farms in the summer months grows greater and greater with each year, and many of the farmers have come to depend largely on the summer boarder for a great part of their cash income. The Boston papers in the spring of the year will contain many columns of advertisements offering board on farms all over New England. The average price received for board is six dollars per week, and as the summer-vacation idea is more popular in the East than in any other part of our country, and is steadily growing, there is a great demand for rooms and board in the country. It is probable that there are more "summer people" on the farms in New England than in any other part of our country, and it is also probable that more of the New England farms are being purchased by city people for summer homes than in any other part of America. In recent years this has increased the value of many of the "deserted farms" of which one has read so much, but there are still many of these farms to be had at a comparatively low price, and many of the farmers living on estates that have belonged to generations of their ancestors are willing and even eager to sell them and go to the village to live. They will tell you that farming is not "what it used to be in New England." Nor is it. Indeed, farming is not what it used to be in any part of our country.

A BEAUTIFUL NEW ENGLAND VILLAGE AMONG THE HILLS

"I made eighteen hundred pounds of butter the year I came to this farm as a bride," said the wife of a farmer to the writer. "And now I do not make even the butter I use on my own table. The creamery and the demand for milk in the city has changed all that, and the dairy has disappeared from the New England farms."

This is true enough, but when milk instead of cream is sold it does not lessen the work of the farmer's wife very much, for there are all those returned milk-cans to be washed every day, and all the other utensils of the dairy to be kept clean and sweet. There is work of this kind to be done even when the man from the creamery comes for the cream two or three times a week. The New England farmer receives an average of three cents per quart for the milk that within a few hours after he ships it sells for from six to eight cents per quart in the cities. The farmer's cows must be fed pretty high to keep the milk up to the proper standard, and the farmer's percentage of net gain is much smaller than it should be when one takes into account the fact that the chief product of his farm—his hay—is fed to his cows, to say nothing of the work of milking the cows and carrying the milk to the station. All things considered, the farmer in New England who depends chiefly on the sale of milk for his income does not seem to be getting all that is rightfully "coming to him" in return for his labor. The thriftiness that has ever characterized the born New Englander is a real necessity of the New England farmer of to-day if he would "lay up" anything from year to year, and toil must be his daily portion. His acres have been cultivated by many generations of his ancestors, and a great deal of fertilizer must be used to make them productive. There is in New England very little of the deep, rich, black soil to be found all over the West, and the Western farmer would stand aghast at sight of all the stones to be found on a single acre of a New England hill farm.

One rarely sees fences of wood or wire on these farms, there being so many stones that it is easy to find enough to build walls around any number of acres of land. Each plowing-time seems to reveal a new and abundant crop of stones, and the wonder is that any plowshare can keep an edge through a single one of the wavering furrows the farmer makes while trying to avoid the real boulders in his fields.

Tobacco was for many years the most profitable crop of many of the Massachusetts farmers, and it is still grown in large quantities in the western part of the state. Within recent years some of the more progressive cultivators of tobacco have been cultivating it under canvas, thereby protecting it from early frosts and greatly improving its quality. Onions are also raised in large quantities, and many of the farmers have been giving their attention to small fruits, for which there is a sure demand in the towns and cities. Little Rhode Island cultivates a great many strawberries and, as one farmer put it, the farmers now "run a good deal to hens," the demand for "hen fruit" being constant. One New Hampshire man has more than five thousand hens. At first he allowed them the freedom of his many acres of apple orchard, which they helped to rid of worms, while they fertilized the ground to some extent. But experience has made him feel that he gets more eggs by keeping his chickens housed, and one may see all over his farm many rude little V-shaped houses with doors of woven wire and with twelve or fifteen chickens in each house. Many of the New England farmers have from two to five hundred chickens that are a source of profit to them if they have "good luck" with them. Many farmers do not realize the vast proportions to which the egg and poultry business has grown in our country, and farmers all over the United States are demonstrating the fact that the hen can be made one of the most valuable of farm assets.

A BACK COUNTRY HOME

The New England farmer does not cultivate very much grain—at least the amount of grain he cultivates seems insignificant when one reads of the vast output of grain in the West. One may ride all day in rural New England without seeing a single field of wheat, and the grist-mill is becoming a thing of the past in some parts of the New England country. The amount of corn cultivated is small compared to the great crops raised in the West, and some farmers do not cultivate corn at all. Potatoes are grown in large quantities, and New England cannot be surpassed in the quality of its apples. But the farmers receive surprisingly small prices for this fruit when one knows the sum paid for it by the consumer after it reaches the city. It is not to be wondered at that the farmer within sixty miles of Boston should be dissatisfied with the seventy-five cents or a dollar a barrel paid him for apples that retail in the city for three dollars a barrel. Many of the farmers are not setting out new trees to take the place of those that are fast dying from old age in their orchards. They will tell you that "it doesn't pay to bother with apples." Nor does it in a good apple year, when prices drop to as low a figure as sixty cents a barrel, with the farmer furnishing his own barrels at twenty-five each. The low returns received for the hard work they do has had a great deal to do with the New England boys deserting the farms in such large numbers, and yet it is doubtful if many of them do much better in the towns and cities to which they go. They work fewer hours, it is true, but the net returns from their labor

SUMMER BOARDERS ON A NEW ENGLAND FARM

[CONCLUDED ON PAGE 22]

The Making Over of the Howards

By Hope Daring

CHAPTER XI. [CONTINUED]

"THIS is the first opportunity I have had to thank you, Professor Dare. Words are empty things, but I must—"

"Please, Miss Howard, spare me. It will always be one of my greatest pleasures to think that I was, in a way, instrumental in saving a life so full of promise as is yours."

"Mine! Oh, I never dreamed that you had that impression of me. I—I do not know what to say about my perverseness that night."

"Do not say anything about it." His voice was vibrant with feeling. "Elsie, I know what it is to encounter hours of struggle and darkness. I do not know what it was that drove you out into the fields that afternoon, but it was a sense of fierce pain that made you deaf to my warning. Ah, how our natures shrink and cry out because of pain! Slowly, unwillingly we learn its lesson. Now let us talk of other things."

"But you do not know how much—"

With a gay gesture he silenced her.

So Elsie was obliged to leave her thanks unsaid. The evening passed most pleasantly; Jerome was in a charming mood, and Elsie treated him with a gentleness that was new to her.

Two months slipped away. The days were crowded full of work for the Howards.

Much to Elsie's surprise Mary seemed to grieve less over Alice's going out from the old home than did the younger sister. The bustle, the planning, and the chance for almost unlimited hospitality—all those things were delights to the senior Miss Howard.

The wedding day dawned, clear and warm. A rain the afternoon before had freshened the foliage and flowers and laid the dust.

The Howard home was at its best. The rooms were bowers of roses; vivid red in the dining-room, pink in the sitting-room, and in the parlor, where the ceremony was to be performed, there were only white roses.

There were two score guests, all cherished friends. Myra Ferris had come the evening before. The Hills were there, Hattie forgetting her resentment in real sisterly affection.

There was one thing that disturbed Elsie—Mary was totally unlike her usual composed, efficient self. For a fortnight the elder sister had seemed a little preoccupied, but Elsie had thought that, as the time of separation drew nearer, Mary had begun to realize what Alice's absence would really mean.

On the previous evening Elsie had driven to Lenox, to meet Myra. On her return she had found Doctor Merdith at the farmhouse. Mr. Reed had been there to rehearse the marriage ceremony, but he had gone before the arrival of Elsie and Myra.

It was as if the rehearsal of the ceremony brought home to Mary the fact that she was about to lose her sister. She went to her own room very early, and Elsie was sure that she had been crying, although her voice had in it a curious note of gladness.

The next morning, with all there was to do, Mary was no good. She emptied a pan of cream in the sink, she filled the salt-cellars with sugar, and she took her dusting cap to polish the silver.

"Oh, Mary, you are more nervous than the bride!" Myra cried gayly, and Mary blushed.

The ceremony was at noon. Alice made a sweet and winsome bride. The bloom of her girlhood had passed, but John Merdith's wife was a gracious woman, one in whom the heart of her husband was satisfied.

Following the ceremony came the wedding dinner. A caterer from Lenox had charge, and, notwithstanding Mary's strange incapacity, all went well. Elsie, Myra, Hattie, Aunt Patience, and Patty all helped a little.

There was to be a trip through Canada. Alice hurried upstairs to dress, and, leaving Myra and Hattie to do the honors to the departing guests, Mary and Elsie went with the bride.

Fortunately they had to hurry, so there was no time for tears. At the very last Mary said:

"Elsie, you go down first. I must have a moment alone with Alice."

Elsie went. She remembered all that Mary had been to Alice, all the long years of self-sacrifice that the elder sister had loyally and lovingly given, and it seemed mete that the last moment should be Mary's.

The bridal couple drove away. Soon all the guests were gone. The Hills went back to Lenox. By four o'clock the house contained only Mary, Elsie, Myra, Aunt Patience, Patty, and a woman who had been hired to help.

"I do wish, Elsie, you'd lock Miss Mary in her room," Patty said in a low voice. "She acts as if she was in a dream. There! If she hasn't put all the silver that I just dried back in the dish-water. What does ail her?"

A little later Elsie said, "Mary, I believe you are tired. Why not go upstairs and lie down?"

"I am not tired, dear. But there is something that I want to tell you. Come upstairs with me."

Wondering what it could be that Mary had to say, Elsie followed her sister upstairs. Miss Howard closed the door of her own room and pointed to a chair.

"Sit down, Elsie. Do you know that I was born in this house, forty-three years ago?"

"Yes, I know. Mary, Alice is gone, but I hope you and I will die here."

"I do not expect to," Mary said, turning away her face. "It was that that I wanted to tell you."

"Last night Mr. Reed asked me to be his wife, and I told him that I would."

"Mary Howard! You must be crazy!"

"I am not. I am very happy."

"You—you marry a minister with two grown sons."

"Yes. I like the boys, and I am sure we will get along. It is leaving you alone that I mind."

Elsie made an impatient gesture. "Never mind me. Mary, why are you doing this?"

"'They are to become new creatures, all save myself. Behold the last of the Howards'"

"Why? Because I care for Mr. Reed, and I want to help on his work."

Elsie stood up. The room seemed to circle round her. She moved forward and kissed her sister.

"I am glad of your happiness, Mary, but I must have time to become accustomed to the idea. I—I have succeeded in making over the Howards, succeeded beyond my wildest dreams," and she passed out of the room, closing the door behind her.

Elsie descended the stairs. The sitting-room was empty, and she passed through it to the porch. From there she went down the walk and out into the highway.

CHAPTER XII.

It chanced that neither foot passengers nor teams were on the road that passed Howard Farm that afternoon. Elsie wandered on down the slope, oblivious to her surroundings, and also to the fact that the rays of the sun were beating upon her uncovered head.

At first Elsie's mental powers were dazed. There was only one fact of which she was sure—Mary was to be married.

Mary was fifteen years Elsie's senior. All her life the younger sister had looked upon the older one as a well-established part of the home. Now Mary was going away, was to enter upon a new existence.

"How dared Mr. Reed think of such a thing." Elsie asked herself. "Does he think, because he is a minister, he can have whatever there is in this world that he wants? And for him to want Mary!"

Suddenly Elsie laughed. Even in her abstraction a sense of the ridiculousness of her resentment to Mr. Reed came home to her.

"As if Mary was not old enough—yes, and wise enough, too—to choose for herself! And Mr. Reed is a good man. Mary will make an ideal minister's wife. How she has waked up in the past year! She deserves all the happiness that can come to her."

Elsie was walking slowly, her head bowed upon her breast. All at once her eyes were dimmed by tears.

"I used to regret that my sisters' lives were so restricted, so narrowed. Now to each one of them has come woman's rightful heritage—love and a home. It is right. It is best. I will rejoice with Mary, forgetting my own sense of loneliness and isolation from her new interests. I have one thing to console me, and that is the excellency of the made-over state of the Howards."

Yes, she could rejoice because of the happiness of her sisters. But she was alone. What should she do with her empty life.

Elsie stood still. She had roused herself from her state of bewilderment and was aware of the fact that the rays of the sun were very hot, also that she was without hat or umbrella.

Just in front of her lay Jerome Dare's home. With one of her decisive gestures she turned round.

"How silly in me to wander way down here without any protection from the sun! Oh, it is hot, and it is up hill all the way home!"

Just then the gate opened. It was Flip who stepped into the road.

"Good afternoon, Miss Howard," he said genially, for Elsie was one of his rare favorites. "You look warm and tired."

"I am both, and foolish besides, Flip. In a fit of abstraction I started for a walk, without thinking that I was bareheaded until the heat of the sun reminded me of it. By the time I walk back home I am sure the impression will be strong enough so that the next time I will remember my hat."

"It is too far for you to walk in the sun. Let me get you an umbrella; there is one on the porch."

"Thank you, Flip. I will take it and gladly. No, you go on, and I will get it myself. I will send it down to-morrow,"

The mulatto passed on with a polite bow. Elsie entered the yard and ascended the porch steps. Just as she was about to lift the umbrella Jerome Dare appeared in the doorway.

"Come in and rest a minute, Miss Elsie. You look unstrung. I heard what you said to Flip, and I am afraid that it must have been very bad news, indeed, that started you off in such an absent-minded way."

"Thank you, Professor Dare, but I—"

Elsie's voice died away. She caught at the door, conscious of a sudden faintness. Jerome Dare gently drew her inside, placed her in a chair, and, a moment later, was holding a glass of iced fruit punch to her lips.

"There, that is better. Flip spoils me," he said in a matter-of-fact tone, handing her a fan. "I know there is always some refreshing drink in the ice-box. Now, Miss Elsie, I cannot attempt to give you that thing you so much abhor—advice—until you tell me your trouble."

"It is not trouble, Professor Dare. It is matrimony."

He started. To her surprise she saw that the fingers of the hand resting on his knee were tightly clenched.

"Are you about to follow your sister's example?" he asked.

"I? Oh, no. Now Professor Dare, prepare to be surprised, even as I was. Mary is engaged."

"Ah! Then the minister has at last found the courage to speak."

"The minister! How did you know? What do you mean?"

He laughed. "I mean that for some months Mr. Reed's affection has been apparent to everyone save its object and her sister. He is a fine man, almost worthy of my special friend, Miss Howard."

"I suppose so. It—it—Professor Dare, I feel even more foolish than I am acting, which is surely all the apology I need to make. Somehow it is as if the world had come to an end when I think that I am all alone."

"This may be the open door to a fuller, better life for you, Miss Elsie. Now you will be free to go back to college or to indulge your scholarly tastes in any way you choose."

Elsie made an impatient gesture. "I am too old. I believe I could content myself on the farm with my books, but they will not let me stay there. It is the breaking up of my home that hurts me the worst of anything."

"It may be hard to not know what to do, but I am sure it is no easier to want a thing with all your heart and have a voice you dare not disregard forbid you to take it."

His voice was sad, despondent. Elsie leaned forward, her eyes fixed upon his face. Were there new lines of gravity round his mouth.

"Professor Dare, what is it. You are in trouble, something more real than my childish affairs."

"No more real, Elsie. I have all along been cherishing a hope that I might go back to my work at Audry this fall. John Merdith forbade my thinking of it, but I dared to doubt his view of the case. Yesterday I went to a city where two different physicians, both men of wide knowledge, confirmed John's opinion. It seems that my only hope of complete recovery lies in five years of outdoor life. So I am a farmer and your neighbor, providing you are allowed to stay on the farm."

"But you do not like the life?"

"I like it, only the other was the work for which I had fitted myself. To give it up is, in a way, to acknowledge defeat. You know how lonely my life is, and I feel that less in a city, among my fellow students. Then to stay here is to see almost daily the one thing for which I crave, and yet which I greatly fear is denied me."

For some reason which she did not herself understand Elsie was aware of a feeling of embarrassment. She spoke hurriedly, trying to give the conversation a lighter tone.

"You speak of failure. I need not admit to that, Professor Dare, for more than a year ago I vowed to make over the Howards. I have succeeded beyond my wildest expectations. They are to become new creatures, all save myself. Behold the last of the Howards."

"Carry your making-over a little farther, Elsie. Become my wife."

She drew back. Beneath his ardent gaze her own wavered and fell. Falteringly she asked:

"Why do you say that to me?"

He bent low over her. "Because I love you, dear girl. I have loved you ever since the day we first met. At first you seemed to dislike me, but I began to hope that your perverseness was caused by your surprise at the wakening of love in your heart."

It was a puzzled face that Elsie lifted to her lover, yet the softened light in her eyes quickened the pulsations of his heart.

"I do not just know. That first day you shook me out of my self-complacency. I tried to think that I hated you, yet I could not do the least thing without asking myself 'How will it seem to him?' Always I was at my worst with you, and I thought you must despise me."

"Despise you! Ah, dearest, you do not know. Search your heart, Elsie, and see if it is not love that fills it."

She turned away her face. The minutes went by. Elsie was not searching her heart; she was letting the waves of joy sweep over her. All the future's perplexities were gone. Life was not only joy, but it was also peace.

Putting his hand under her chin Jerome raised her face to meet his gaze as he said:

"What have you to tell me, Elsie?"

"That the Howards are made over, made out of existence. We will begin a new life, together, Jerome."

[THE END]

How the Farmer Lives in New England

[CONTINUED FROM PAGE 20]

are not much more than they would receive from farming, and the environment of the average young man from the country when he goes to the city is far less desirable than that of the young man in his country home.

The New England farmer fares far better than did his ancestors when it comes to what we call the "conveniences" of life. He has his mail brought to his door, and may thus have a daily paper if he will. This is a convenience for which he is particularly grateful in the winter-time, when he does not want to make many trips to the town or village. The daily mail and the telephone help to keep him in touch with things and lessens his sense of isolation. It is now not unusual for the farmer to have his house lighted with electricity, and the public library to which he may have free access, if he will, is to be found in nearly every New England town. The Grange has never lost favor with many of the New England farmers and it flourishes in all parts of the New England country.

On the whole, I think that the New England farmer lives a less strenuous life than the Western farmer, although both must be reckoned as sons of toil. The home of the New England farmer is, as a rule, better furnished than that of the average Western farmer, and there is a certain neatness and air of thrift about the New England homestead that one often fails to see about rural homesteads in other parts of the country. Neatness is an inherited instinct of the born New Englander, and the New England housewife is apt to sustain her reputation for order and cleanliness. Some of her kind have not yet come to know the beauty and the value of heaven's own sunshine in the home, and every room not in actual use in the house is almost hermetically sealed against fresh air and sunshine. So closely are all outside blinds closed, and so closely are the curtains kept drawn to keep out the sunshine that some of the houses seem to be uninhabited. A certain musty odor greets the nostrils in some of the most immaculately neat New England farmhouses, and perhaps there would be less "rheumatiz" in New England if there were more sunshine and fresh air in all of the homes.

The hog, that ever-present product of the Western farm, has departed in a large measure from the New England farm. One may ride miles in the country without seeing a single hog or hog-pen. The New England farmer of to-day does not eat a great deal of pork, and hundreds of farmers do not raise a pound of pork to sell. The New England farmer uses less meat of all kinds on his table than does the Western farmer, but the Westerner does not get ahead of him when it comes to pie and doughnuts, two deadly dainties that hold their own in America, no matter how much doctors may inveigh against them. New England still holds her own as the great "pie belt" of the country, and each succeeding generation clings tenaciously to the baked bean as an absolutely indispensable article of diet.

While the wife of the New England farmer no longer makes butter to sell nor dips candles, nor weaves her own carpets and bedspreads, nor spins, nor does many other things her grandmothers did, she is a very busy woman, particularly if she has a large family. The large family, however, is far less common

ONE OF THE MANY SMALL SCHOOLHOUSES

than it once was in New England, and what Max O'Rell called the "great American family of one" obtains quite as much in the rural life of New England as in city life. And yet the mother of one child on the farm has few idle moments if she does all of her own work, because the domestic life of to-day is more complicated now than it once was, and even the wives of farmers have a good many interests outside their homes that their grandmothers did not have. They read more than their grandmothers did. They dress better, and therefore spend almost as much time at their sewing-machines as their grandmothers spent at their hand-looms.

Story-tellers have given us some rather harrowing pictures of the overworked farmer's wife in New England, and of the hard conditions of her life, but it is certain that she is quite as well situated as are the wives of farmers in any other part of our country, and she usually works under more healthful and agreeable conditions than do many of the other women workers of the world. The farmer's wife is always a hard worker in any part of the world if she attends to all the duties that await her, but, after all, it would be difficult to prove that she works harder than do wives and mothers in the city, and the nervous prostration that so often falls to the portion of the city dweller is less common in the country than in the city. A statement once went the rounds of the papers to the effect that there were more farmers' wives in the insane asylums in New England than any other class of women. This was the outgrowth of the fertile imagination of some newspaper writer in urgent need of "copy." The writer has spent fifteen summers on New England farms, and he has yet to hear of a single farmer's wife being carried to the insane asylum because of overwork or a morbid condition growing out of her environment. The city woman who almost stands aghast at the early hour at which the farmer's wife usually rises seems to forget that as a rule this same farmer's wife is usually in bed hours before the city woman thinks of seeking her own bed.

When it comes to beauty of situation no farming class in the world has more to enjoy than does the New England farmer. Nothing can surpass the beauty of thousands of the hill farms in New England, and the whole country is charming in its natural aspects. No land has more beautiful hills and valleys, clearer or more picturesque streams, bluer skies or purer air. And when one brings up its rigorous climate as a charge against it, one should fall to investigating statistics, when it may be discovered that no part of our country can show a better record when it comes to the longevity of its inhabitants, and it is doubtful if any other part of our country can produce so large a number of men and women past eighty years of age, who are so alert both physically and mentally. The average age of the New England farmer is as great as that of the farmer in other parts of our country. His life does not differ in many of its aspects from that of the life of the farmer in the North or West, and he is usually grateful for the advantages and blessings that come to him as an American farmer.

A FAVORITE HAUNT OF THE SUMMER BOARDER

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A Thanksgiving Discovery

[CONTINUED FROM PAGE 19]

curiously at the preparations, but were too well-bred to ask questions.

The last rays of the sun made a shining path over the shining leaves as the long procession, with Mr. and Mrs. Wales at the head, wound through the almost leafless grove. It was a short walk, and it led to a beautiful farmhouse into which the people hurried as if they were at home within the warmed and well-furnished interior.

"Didn't Horace tell you?" said Mr. Wales, looking at June's astonished face. "We always celebrate Thanksgiving in the old home, but the rest of the year we live here. Mother and I like the old home best, but perhaps it is best for our rheumatism to be near a furnace in winter. We are not as young as we once were."

"And you don't have to live in the cabin?" said June. "I thought—"

"I guess you thought my grandpa was poor, but he isn't," said a wise little granddaughter. "He's got the biggest farm in the whole— Why must I keep still, mamma? It's so, isn't it, Uncle Horace?"

"I'm so glad," said Florence, seeing the astonished looks on the faces of the city girls. "I was afraid—"

"You were afraid the girls might come out here to make fun of us, weren't you?" said Horace, taking both her hands in his own. "I knew all the time what they were saying about me, and I am grateful to you for trying to warn me."

The piano sheltered them from sight, and the one whispered word from Florence satisfied the young man before he released her. Everything was joyful and happy for the rest of the day, and until late in the evening, but the old couple would have it the best part of every Thanksgiving was spent in the big cabin.

"You won't have to take the trouble of dropping Horace, June," said Cecelia, as they rumbled back to the station. "Florence Morgan is the only person who may have that painful duty to perform, and I don't think she will do so. You had a little lesson to-day, didn't you?"

"Yes, I did," said June honestly, "and I'm glad of it. I don't suppose you'll believe me, but I discovered long before we went to that elegant house, that it is the height of discourtesy to accept an invitation as I did the one to-day. I hope Florence and Horace will be perfectly happy, for they deserve to be," but there was a little ache in her heart as she said the brave words.

"We three were all horrid, but we'll do better next time," said Cecelia, pressing her friend's hand. "If that was a story-book Thanksgiving, I want to read another chapter next year."

"Next year there will be a bride and groom to extend the invitations." said Margaret, and her prediction came true.

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The World's Big Armies

WE of to-day look with awe upon the immense armies Russia, Germany, France, Austria and England have under their colors; yet, if we should take the trouble to review our ancient histories, these present bodies of fighting men are not to be compared in strength to the ancient hosts. Reviewing the subject the "Scrap Book" gives forth some very interesting facts.

TYPICAL COUNTRY CHURCH

The standing army of the Russian Empire in time of peace consists of 1,036,000 men, while its war strength is 76.546 officers and 4,627,000 men.

While the war strength of Germany is estimated at 70,015 officers and 5,334.094 men, it maintains a standing army of only 594.088 officers and men.

France, with a war strength of 4,695,760 officers and men, maintains a peace army of 613,117 officers and men.

The armies of other nations in time of peace are as follows: Japan, 348.300 Austro-Hungary, 303.660; Great Britain 270,128; Italy, 260.454; Turkey, 217.960.

In the United States the enlisted strength of the regular army is limited by law to 100,000, but this at the present time amounts to only 60.380, to which is to be added a provisional force of about 5,116 officers and men in the Philippines and Porto Rico. Besides these, however, we have an organized militia of 117,144.

So much for the armed strength of modern nations. Now let us compare with these some of the armies of antiquity.

The city of Thebes had a hundred gates, and could send out at each gate 10,000 fighting men and 200 chariots—in all 1,000,000 men and 20,000 chariots.

The army of Terah, King of Ethiopia, consisted of 1,000,000 men and 300 chariots of war.

Sesostris, King of Egypt, led against his enemies 600.000 men, 24,000 cavalry, and 27 scythe-armed chariots. 1491 B. C.

Hamilcar went from Carthage and landed near Palermo. He had a fleet of 2,000 ships and 3,000 small vessels, and a land force of 300.000 men. At the battle in which he was defeated 150,000 were slain.

A Roman fleet led by Regulus against Carthage consisted of 330 vessels with 140.000 men. The Carthaginian fleet numbered 350 vessels, with 150,000 men.

Hannibal, during his campaign in Italy and Spain, plundered 400 towns and destroyed 300.000 men.

Ninus, the Assyrian King, about 2200 B.C., led against the Bactrians his army consisting of 1.700,000 foot soldiers, 200,000 horse, and 16.000 chariots armed with scythes.

Italy, a little before Hannibal's time, was able to send into the field nearly 1,000,000 men.

A short time after the taking of Babylon the forces of Cyrus consisted of 600,000 foot, 120,000 horse, and 2.000 chariots armed with scythes.

When Xerxes arrived at Thermopylæ, his land and sea forces amounted to 2.641.610. exclusive of servants, eunuchs, women, sutlers, etc., in all numbering 5.283.220. So say Herodotus, Plutarch, and Isocrates.

Little Science Stories

Anesthetics

DURING the month of December, 1844, Mr. Colton, a popular itinerant lecturer on chemistry, delivered a lecture on "laughing gas" in the city of Hartford, Connecticut. Among his audience was one Horace Wells, an enterprising dentist of the town, with a marked leaning toward mechanical invention.

After the lecture the speaker afforded his hearers the usual amusement of inhaling the gas in order to undergo its peculiar effects. Wells, who was an interested onlooker, noticed that one of the men, under the excitement brought about by inhalation of the gas, was not conscious of hurting himself when he fell on a bench near by, and bruised and cut both knees severely. This man, even after he became clear-headed again, was certain that he experienced no pain at the time of the fall. Wells had always believed that something would be found to make tooth-drawing a painless operation, and, after witnessing the occurrence already mentioned, he was thoroughly convinced that during the temporary insensibility brought about by the use of the gas and the intense nervous excitement produced, teeth might be readily drawn without pain to the patient.

Wells at once decided to offer himself and one of his largest teeth to test the theory. The next morning Colton, the lecturer, gave him the gas, and his friend, Doctor Riggs, extracted the tooth. Wells remained unconscious for a few minutes, and then exclaimed: "A new era in tooth-pulling! It did not hurt me more than the prick of a pin. It is the greatest discovery ever made."

During the next few weeks Wells extracted teeth from twelve to fifteen persons under the influence of nitrous oxide, or laughing gas, and gave pain to only two or three. Encouraged by the success attained, Wells went to Boston, wishing to enlarge the reputation of his discovery and to have the opportunity of administering the gas to some person undergoing a surgical operation.

Doctor Warren, the senior surgeon of the General Hospital of the state, asked that Wells demonstrate the effects of the gas on someone from whom he would draw a tooth, before permitting him to use it during a more difficult operation. Wells undertook to administer the gas before a large body of students, to whom he had previously explained his plan. Unfortunately, the bag of gas was taken away from the patient too soon, causing him to cry out when the tooth was drawn. The students hissed and hooted, the discovery was denounced as an imposture, and Wells left Boston, disappointed and disheartened.

Soon afterward he gave up dentistry and neglected the use and study of nitrous oxide, till a discovery more important than his own recalled to him his former views. This other discovery was the effects produced by inhaling sulphuric ether, which was often used for the relief of asthma and other similar diseases.

Ether could be more readily obtained than nitrous oxide, and for this reason it came to be often inhaled for amusement by chemists' lads and surgeons' pupils. It was often thus used by young people in many sections of the United States, and the fun occasioned was called "ether frolics." During one of these so-called frolics a negro lay unconscious for such a long time that he was supposed to be dead. The fright occasioned put an end to the ether frolics in that neighborhood, but a certain physician named Wilhite was so interested in the effects produced by the ether that he continued to experiment with it, in company with other physicians. Under the excitement brought about by inhalation one of the doctors observed that he was unconscious of the blows which he received by chance as he rushed aimlessly about under the influence of the ether.

This person was Doctor Long, who had heard of the remarkable recovery of the negro boy after an hour's insensibility, and, seeing something out of the ordinary in his own sensations, he determined to use the ether in an effort to allay the suffering during some surgical operation. In March, 1842, he induced a Mr. Venable, who was very fond of inhaling ether, to take it until he was quite unconscious. When this was done, Doctor Long removed a tumor from Venable's neck. No pain was felt, and no evil results followed the experiment, which was tried again and again during the next two or three years with similar success.

Although his successful operations were known and talked of in his neighborhood, Doctor Long did not publish any of his observations and discoveries for the world at large. He wanted to test the ether more thoroughly in some more difficult and dangerous operation, after which he intended giving his observations to the world.

In the meantime other physicians, knowing nothing of Long's success, were experimenting, and in 1846 ether was administered with success during a difficult operation at the Massachusetts General Hospital, the patient experiencing no sensation of pain during the trying ordeal. The discovery first made by the unfortunate Wells was now complete, and in a few brief months was in use in the leading cities of Europe and America.

Winter's Comin'

BY J. RICHIE SCHULTZ

Yes, winter-time's a comin', I can fell it in the air,
There's a sort o' tonic in it, something that you can't compare.
I can see it in the fallin' o' the leaves from off the trees,
I can tell it in the coolness of the evening autumn breeze.
I believe that Nature feels it, and I know it makes her gay
To feel that winter's comin' and it isn't far away.
Of course I like the springtime when the earth begins to bloom,
And the flowers of the wildwood fill the air with sweet perfume,
And the summertime is pleasant, yes, each warm summer day,
With the glory of the harvest and the scent of new mown hay.
Then the earth is just as splendid when you hear the autumn call,
When the fruit is ripe and gathered and the nuts begin to fall;
But somehow when the winter comes and all the trees are bare,
And you feel the touch upon you of the crisp cold winter air,
When the ice begins to gather at the edges of the creek,
And the snowflakes start to fallin' as if playin' hide and seek,
Tho' some folks start complainin' cause cold weather's come to stay
I feel its good to be alive upon a winter's day.
When you've quit your work at night-time, and have done up all your chores,
Don't the fire feel warm and pleasant when you come in from outdoors?
There are many joys o' winter that I wouldn't trade for all
You could give me of the pleasures of the autumn, spring or fall.

The Separate Steam Condenser

IN THE year 1763, the lecturer on natural philosophy at the famous old University at Glasgow, Scotland, used to demonstrate certain principles of physics to his pupils with a small model of what was then known as an atmospheric engine. After long years of diligent experiment and labor, this imperfect engine had been brought up to a partial degree of usefulness by Newcomen and other inventors of the time, but was crude both in appearance and construction. Constant inspection and handling of the model put some of the working parts out of order, and the professor cast about him for someone to make needed repairs. The man chosen for the work was James Watt, a skilful young Scot who earned his livelihood by making mathematical instruments. Years before, so an old story runs, the sudden movement of a lid on a kettle of boiling water opened Watt's eyes to the power and pressure of one of the greatest of all forces, steam. Trivial as the occurrence was, it caused Watt to devote some study to the subject, which in all of his after-life possessed a peculiar fascination for him. The task of repairing the model of the atmospheric engine for the Glasgow professor was for this reason, while difficult, not an unpleasant one, and he set to work with a will.

In making the necessary experiments Watt was forcibly struck with the fact that the quantity of steam that the engine used for each stroke of the piston was many times more than the contents of the cylinder. Thoroughly interested in his work, this discovery led him to further observation, by which he soon arrived at some of the most important phenomena connected with the evaporation of water.

Full of deep and unfeigned astonishment at what his experiments had shown him, he repaired to Doctor Black, the professor of natural philosophy in the university, and unfolded to him the discoveries made. The first and most important of these consisted in effecting the condensation of steam in a separate vessel communicating with the cylinder and called the condenser. This vessel, so Watt discovered, being filled with steam from the boiler at the same time with the cylinder, a jet of cold water admitted into the former only, resulted in the condensation of the entire volume of steam, both of that in the cylinder as well as in the condenser itself.

To make a thorough test of the discovery, Watt also placed his condenser in a cistern in order to further still more this separate condensation. The temperature of the cistern was kept constantly the same by the addition of a fresh supply of cold water, or otherwise the heat given out by the condensing steam would soon raise the surrounding water to its own temperature.

This was but the first step toward the perfection of the steam engine, to the development of which Watt devoted many years of research and labor, soon exhausting his limited means to further his plans. With some financial assistance, however, Watt succeeded, in 1774, in constructing a steam engine which was especially noteworthy from the fact that it possessed many of the features of our modern engine.

Watt's invention did not end with the separate condenser by any means. Aside from it, the water-gage and the mercury steam-gage are but a few of the many improvements he made to the steam engine. He began the manufacture of engines on a large scale, and his days of poverty and trial were over.

As a merited result of the service which he had rendered the cause of science and invention many honors were bestowed upon him. In 1784 he was elected a fellow of the Royal Society of Edinburgh. A similar honor was tendered him by the Royal Society of London, and he was made a foreign member of the Institute of France. The University of Glasgow conferred upon him the degree of LL. D. After his death, August 25, 1819, a statue was erected in his honor at Birmingham, and a national monument in Westminster Abbey.

The Telephone

DID you ever sing into a piano and notice how certain of the strings are set in motion by the sound of the voice, and giving back a sound similar to that uttered by yourself? Years before the idea of a telephone was ever conceived, this peculiar vibration of the piano's strings was noted, and a theory was presented that if there were a greater number of strings to the octave the vowel sounds of the human voice would be exactly reproduced.

Acting upon this theory, the first telephone was constructed by an American inventor, Prof. Alexander Graham Bell. Bell, like many of his predecessors, was confronted by great difficulties, the main one being a lack of money with which to bring his invention to a perfected state. After many experiments and improvements, many disappointments arising to hinder his work, he finished his first crude instrument, which was exhibited in 1876 in the city of Philadelphia. This first telephone was of peculiar construction. The transmitter was formed by an electro-magnet through which a current flowed, and also of a membrane of gold-beater's skin on which was placed a piece of soft iron, which vibrated in front of the magnet when the membrane was thrown into motion by the sound of the voice.

Incomplete as Bell's first instrument was, it served to place his achievements high among those of modern inventors, and at once attracted world-wide attention and comment. It soon became evident that when a Bell transmitter was spoken into, only a small fraction of the vibrations of the voice were converted into electric currents, these currents proving extremely weak in consequence. It was important that this defect be remedied, and many other inventors undertook the task.

Edison was the man for the work. Prior to that time he had made experiments with carbon, and, knowing that its resistance varied under pressure, he hit upon it as

[CONCLUDED ON PAGE 32]

The Puzzler

The Thanksgiving Day Feast is very likely to contain some, if not all, of the good things pictured in the six drawings below. Think of the menu you sat down to last year and perhaps the solution may be easy. See next issue for correct answers

Answer to Puzzle in the November 1st Issue: Hepburn, Littlefield, Loud, Overstreet, Bingham, Metcalf

Some Thanksgiving Table Decorations

THE prettiest and most appropriate decorations for the Thanksgiving dinner-table are those made with fruits, nuts and vegetables. To the uninitiated the latter may seem rather hopeless as a decorative feature, but if one has a little artistic ability, and the vegetables are properly cleaned, the pleasing results to be obtained with them are really astonishing. At one very delightful Thanksgiving feast last year the decorations were done almost entirely with these useful products of the soil, and were so charming that the woman who is cudgeling her brain for something just a little different this year, may find more than one helpful hint in a brief description of them.

For the centerpiece a large, long Hubbard squash was chosen, and after thorough washing and polishing this

CHRYSANTHEMUM SALAD—Shred a crisp cabbage, and simmer ten minutes; drain and chill; then heap roughly onto a bed of green foliage. Mix two tablespoonfuls of tarragon vinegar, one tablespoonful of salad oil, one teaspoonful of celery salt, dash of paprika pepper; pour over salad, garnish with tiny sweet peppers and hard-boiled eggs. Allow to absorb dressing before serving

carved into a quite shapely boat-mast, sails and all, complete. The name "Mayflower" was painted on the hull in scarlet letters, and the pretty ship was artistically laden with rich-hued fruits, tiny little gilded baskets of homemade candies, and small bags of scarlet mosquito-netting filled with a variety of delicious shelled nuts, and tied with baby ribbons of red, white and blue. This modern "Mayflower" was set to "sail" on a long, narrow mirror placed lengthwise on the center of the dining-table. Around the edge of the mirror were placed small pieces of rock, little heaps of clean dry sand, and an abundance of moss, to make the "shore" as realistic as possible. At one end was placed a large piece of rock, shaped a la Plymouth, on which was planted a tiny flag-pole proudly floating a miniature silken "Old Glory." Near the flag stood several dolls, dressed to represent those brave men and women who celebrated the first American Thanksgiving, and to whose heroic endurance and unselfish fortitude we owe so much. A piece of "land" sloped from the rock, and on this had been built in masterly fashion several tiny log cabins. Slender branches of trees cut into uniform lengths were used for these colonial residences.

Across each corner of the table a sheaf of golden grain tied with scarlet ribbon was laid with mathematical precision, and in each space thus fenced off was another tiny log cabin in a little "clearing" where bittersweet and mountain-ash berries appeared to be growing in great profusion. No decorations were attemped at the individual covers other than those formed by the dainty serving of the different viands. A bright note of color was made by little red-pepper boats filled with stuffed olives and salted almonds at each place.

Oyster cocktails were served in small tomato cups, the cups having previously been well sprinkled with a simple French dressing. Next came a delicious cream of chestnut soup; this was served with strips of brown bread spread with soft butter and crisped in a hot oven, and stalks of crisp white celery, the hollows filled with grated cheese, seasoned with salt and a dash of cayenne, and made into a soft paste with a little sweet cream. The boiled cod was served with oyster sauce in delicious little mashed potato cases. The turkey stuffing had been mixed with finely minced sausage meat, and made in sufficient quantity to leave an abundance to form into small balls and use as a garnish around the royal bird. These were fried in butter to a golden brown, a sprig of

OYSTER CREAMS—Line patty-shells with short crust, and bake; fill when removed from oven with this: Cook oysters in their own liquor till edges curl, then cut into pieces and add to boiling sweet cream; season with butter, salt, mignonette pepper; serve immediately on a hot platter daintily garnished with parsley

parsley stuck in each, and used alternately with rice nests to make an edible garnish. The rice nests were filled with red-currant jelly centers, and were dainty and delightful in combination with the sausage balls and turkey.

When the turkey was brought on the table a small pretty china plate containing a little cranberry-jelly cup filled with finely chopped celery lightly dusted with salt, and a large delicious pickled peach was placed for each guest. The clear ruby of the jelly, with the creamy white of the celery, and crimson and amber of the peach, formed another charming color harmony, and served in this way were much less trouble than if passed at the table separately. Baked Hubbard squash was served in neat saucers of its own polished yellow shell; baked sweet potatoes in skins made delicious with a coating of soft butter dusted with a little salt, paprika, and white sugar; canned peas with cream sauce in little boats made from boiled turnips. These little cases were spread with soft butter and lightly dusted with salt, paprika and a tiny bit of sugar, and set in a hot oven for five minutes before filling them with the hot, creamy peas.

The salad was served individually, and was exceptionally pretty and delicious. Large red boiled beets had been carefully pickled in seasoned vinegar, and then cut into strips of uniform size. Upon each pretty salad plate a mat of shredded lettuce was placed to imitate grass, and on this with the beet strips was built a tiny log cabin. These little buildings were filled with the most delectable of chicken and mushroom salads, the roofs were then put on with more of the beet strips, and a thicker, longer piece put in place to represent a chimney. English-walnut meats and a few drops of bright yellow salad dressing ornamented the "lawn."

There were pies galore, pumpkin, lemon, custard, and the daintiest of cranberry tarts, latticed over with strips of the paste, just as our great-great-grandmothers used to make them. A rich vanilla ice-cream, made yellow with the yolks of eggs, was packed in a pumpkin-shaped mold, and left buried in ice and salt for several hours to ripen. This was turned carefully out at serving-time on a rare old blue china platter, and served with a very delicious hot maple and walnut sauce.

MARY FOSTER SNIDER.

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Pumpkin Souffle

A DAINTY way of serving pumpkin similar to pie without pastry is found in the following

Put one fourth of a cupful of butter and a cupful of milk into a saucepan over the fire. When boiling well add a tablespoonful of flour mixed with a generous half cupful of sugar, and cook until it thickens; add a cupful of cooked and sifted pumpkin seasoned with half a level teaspoonful each of cinnamon and ginger and a

GRAPE SOUFFLE—Add four level tablespoonfuls of corn-starch wet in a little cold water to one quart of boiling milk and half a teaspoonful of salt; cool, then fold in stiffly beaten whites of four eggs and one cupful of confectioner's sugar; have pulped grapes ready, and add to souffle when pouring in a mold lined with lady's-fingers; set on ice, unmold, garnish with grapes, and serve with caramel sauce. Follow the directions carefully to insure the right consistency

few grains of salt, and stir until the boiling-point is reached. Cool slightly, add the beaten yolks of three eggs, then fold in the stiffly beaten whites of the eggs. Turn into buttered individual dishes standing in a pan of hot water and bake ten minutes, or into a buttered pudding-dish and bake twenty minutes.

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The Cruller

THE good old-time cruller never loses its important place in the household, especially if there are small children around.

Good, rich, sweet cream is used, taking one tablespoonful to each well-beaten egg. Also one tablespoonful of granulated sugar to an egg, adding a small half teaspoonful of soda (dissolved), a little grated nutmeg and salt. Mix very tender with flour. Roll thin as cookies, cutting off small oblong pieces, and then cutting each piece part way with knife into two or three slashes. Fry very carefully to keep the color of a lady's-finger. Sugar the crullers in pulverized sugar. Each egg will make about one dozen. These are usually made in small quantities, as they are best when freshly made.

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Squash Pie

CREAM one fourth of a cupful of butter. Beat into it three fourths of a cupful of sugar, one fourth of a teaspoonful of salt, and half a teaspoonful of ground mace. Add the yolks of three, or one whole egg and the yolk of another beaten light, one and one fourth cupfuls of cooked and sifted squash, and a generous cupful of rich, creamy milk. This makes a filling for one pie. Bake in a plate lined with puff or a good plain paste.

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Cranberry Sauce

THE Thanksgiving dinner must have its cranberry sauce, and in order to start right in its making care must be used in selecting the berries. Stir the berries all the time while stewing. When reduced to the consistency of a pulp, add the syrup, previously prepared, and allow to boil a few minutes, still stirring. To make the syrup, add three pounds of sugar to a quart of water. Add the whipped whites of three eggs. Boil and strain. Equal weights of fruit and sugar are allowed.

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To Roast Spanish Onions

TAKE as many Spanish onions as are required, and work them thoroughly in cold water. Do not peel. Place them in a saucepan and cover with water. Let simmer gently over the fire for two hours, then lift them one at a time from the water with the skimmer; place them in a baking-dish, season them with a light sprinkling of red pepper and plenty of salt. Put a

STUFFED EGGPLANT—Halve a tender plant; scoop ont the contents, leaving a half-inch wall; chop the inside, and cook ten minutes in boiling water; drain, add pulp to three tablespoonfuls of bread-crumbs, one tablespoonful of butter, salt and pepper, half of an onion minced, two tablespoonfuls minced ham; fill shells, bake twenty minutes, and serve as a side dish while hot

tablespoonful of butter on top of each onion, cover them well with fine bread-crumbs and stand in a quick oven and let them roast until a rich brown on top. Serve in the dish in which they are roasted.

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The Thanksgiving Dinner

THE Thanksgiving season, seemingly always one of plenty, affords the housewife no end of opportunities for varying the menu. The following is not likely to miss anybody with regard to satisfying tastes:

Oyster Soup
Clam Chowder, or Blue Points on Cracked Ice
Olives. Cold Slaw.
Baked Whitefish, Parsley Sauce. Potato Balls.
Roast Turkey, Stuffed with Chestnuts or Oysters.
Mashed Potatoes. Baked Corn.
Stewed Tomatoes. Candied Sweet Potatoes.
Mashed Turnips. Cranberry Sauce.
Jelly or Cranberry Ice.
Hot Rolls. Pickles. Celery.
Salad of Oranges.
Lemon and Pineapples served in Orange Shells or Apple and Celery Salad served in Apple Shells.
Pumpkin. Mince and Apple Pie.
Fruit and White Cake. Ice-Cream.
Nuts. Raisins. Fruit.
Coffee.

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Disinfection

THE following method of disinfection is prescribed by "Good Health:"

Formaldehyde and permanganate of potash are employed. The only apparatus needed is a tin pail with a flaring top. The pail should be set in a wooden bucket. Cracks about the windows and doors are closed in the usual way by pasting paper over them. For each one thousand cubic feet of air space to be disinfected put into the pail three and a half ounces of permanganate of potash in crystal form. Pour over this one pint of forty-per-cent solution of formaldehyde. Take care not to inhale the gases, and leave the room at once. The gas produced in this way will destroy the most resistant organisms, even when covered with several thicknesses of cloth. The air should be rendered moist by the evaporation of water. The Maine Board of

BLANKETED OYSTERS—Wrap each large oyster seasoned with pepper in a thinly sliced piece of bacon; fasten with fine skewer, and broil a delicate brown over a hot fire; lay on toasted rounds of bread; serve at once on a hot plate

Health recommends twice the amount of chemicals given above. The woodwork, floors, and other similar parts to be disinfected should be washed with one to one thousand solution of bichloride of mercury.

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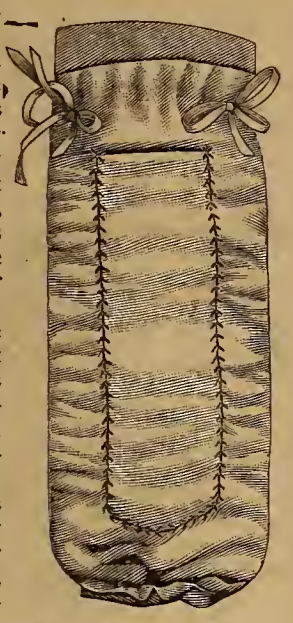
An Excellent Sauce

CREAM two tablespoonfuls of butter and two teaspoonfuls of flour; add seasoning of salt and a few grains of white pepper. Stir into a cupful of sweet cream until thick and smooth. Beat with egg-whip until glossy and foamy.

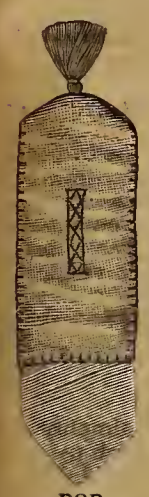
Yuletide Gifts of Ribbon

EVEN the novice with a needle may make many delightful little gifts for the Yule-tide if she will use for her principal stock in trade some of the myriads of fancy ribbons procurable this year in the shops. They are so beautiful in themselves that rarely is further adornment necessary, and at times, when little additional touches are needed, they are of the simplest stitchery. Thus does ribbon become a special boon to the woman who does not embroider or has no time for this dainty but tedious work, but who prefers to make a large proportion of her gifts.



BRUSH-AND-COMB BAG

One of the most convenient little things found in the ribbon line is a safety-pin holder. This forms a utilitarian as well as pretty gift for baby, or maid or matron, for the safety-pin is an ever-present adjunct to the toilet table. This little trinket consists of a half dozen pieces of narrow ribbon, three fourths of an inch wide being desirable. These pieces range in length from four inches to eight inches. Seven brass rings are crocheted over with silk the same color as the ribbon (pink in the illustrated holder). To one end of each ribbon strip a ring is attached. The other ends are fastened together in the remaining ring, the joining being hidden by some loops and ends of ribbon. This one ring serves to hang the holder to the wall or dresser, while in each of the other rings safety-pins are clasped, these varying in sizes.



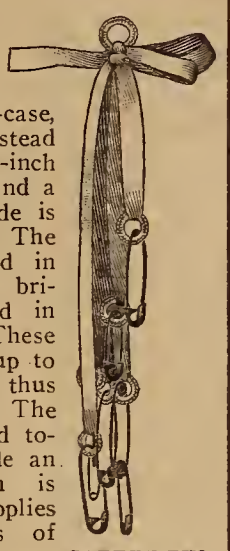
FOR GRANDMA'S GLOVES

A gift which cannot fail to please the young man of the family is a necktie holder, such as is pictured herewith. An embroidery hoop four and a half inches in diameter is wrapped neatly with narrow pale-blue ribbon; a ten-inch strip of Dresden ribbon four inches in width has both edges turned back to meet at the center, and is herring-boned together, thus making two thicknesses to the strip. It is secured to the hoop plainly at one end, while the other end is gathered into a small brass ring by which to hang it. A bow of the narrow ribbon gives a dainty finish at this point.

The hatpin jar provides a welcome addition to dresser or toilet table. The foundation is a glass jar such as small candies are frequently packed in. Four widths of three-inch-wide fancy ribbon form the cover. These are six inches long, and are overcast together lengthwise. An inch-deep heading is turned down at one end, and the whole gathered to fit the top of the jar. A circle of cardboard about the size of a dollar is covered on both sides with scraps of the ribbon, and forms the bottom, the ribbon being gathered to it evenly all around. Narrow ribbon of the shade predominating in the wide is tied around the neck, with loops and ends forming the decorative feature. No one who has once learned the value of this little trifle will ever wish to be without one. A round of cork, cut flat and laid in the bottom of the glass, will prevent dulling the points of the hatpins.

HATPIN JAR

The grandparents of the household will doubtless be glad for a safe place in which to deposit their glasses. One which grandmother will appreciate is formed of a fifteen-inch strip of black ribbon two inches in width. One end is turned under to form a point, and a safety-pin attached to secure the holder to the belt. The other end is turned up to form a long pocket, and the sides caught together by loose buttonholing. An initial may be worked on the front if desired, or some little ornament in beadwork added. The bottom has the corners tucked in loosely, and is completed by securing a tassel to the point. This tassel is made by wrapping coarse silk floss over and over a strip of pasteboard one and a half inches in width. A thread is run under one edge and tied firmly, while the other edge is cut through. Binding the tassel with floss a short distance from the tied end forms the little ball-like portion.



SAFETY-PIN HOLDER

The spectacle case for grandfather is in the form of a card-case, but folded outward instead of in. A fourteen-inch length of ribbon five and a half or six inches wide is required for this case. The two ends are hemmed in some fanciful manner, brier-stitching being used in the present instance. These ends are then folded up to the center of the strip, thus forming two pockets. The edges are brier-stitched together, and on one side an initial or monogram is placed. This case supplies room for two pairs of glasses, and is readily carried in the coat pocket.

The remaining article illustrated is a comb-and-brush bag, useful alike for the traveler and the stay-at-home. Two fifteen-inch strips of red ribbon four inches wide are necessary. To one is brier-stitched an eight-inch length of fancy ribbon in shades of red and green. This is of half the width of the red ribbon. The top of this piece is hemmed, and the bottom pointed. This serves to hold the comb. The two lengths of the wide ribbon are now overcast along the sides for the brush bag. The bottom of each is gathered with a little heading, and a piece of whalebone is placed on the inside to give it firmness. The top is hemmed down to form an inch-wide heading and a casing made for draw-strings. These are of narrow-striped red and green.

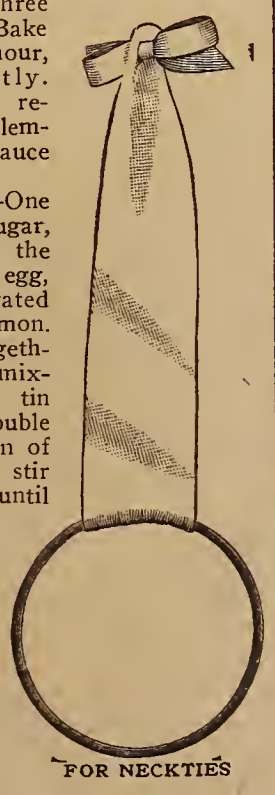
MAE Y. MAHAFFY.

◈

Three Good Recipes

MOCK HARE—Take three fourths of a pound of pork, one and one half pounds of beef, finely chopped. Fry a little chopped onion in butter, add chopped parsley, pepper, salt, nutmeg and a little grated lemon peel, mix with the meat, and add three beaten eggs, three tablespoonfuls of bread-crumbs, three tablespoonfuls of milk. Stir all together, roll in oval shape in bread-crumbs and place in a buttered roasting-pan containing melted butter and broth and water sufficient to cook well. On the top place three slices of lemon. Bake for about one hour, basting frequently. When taken out remove the slices of lemon and make a sauce from the gravy.

SPECTACLE CASE



FOR NECKTIES

LEMON BUTTER—One cupful of white sugar, three eggs, butter the size of half an egg, the juice and grated rind of one lemon. Beat these well together, then put the mixture in a bright tin basin (or a double boiler) set in a pan of boiling water and stir it constantly until thick. This is very nice for filling tarts or layer cake and for small cakes if split and put together.

NICE CREAM CAKE—Beat two eggs in a cup, fill the cup with thick sweet cream, add one cupful of white sugar, one cupful of flour, one half teaspoonful of soda, one teaspoonful of cream of tartar, or two level teaspoonfuls of baking-powder. Bake in a long narrow pan. The moment the cake is done remove it from the oven.

MRS. J. R. MACKINTOSH.

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I am not the largest stove maker in the world—but I've got the greatest stove in the world and I can prove it to you—*will* prove it if you want me to.

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My **Stone Oven Bottom** stores up heat like the old Dutch ovens—that's an exclusive feature.

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A TOY which is all the rage at the present time. Teddy will be a source of never-ending amusement for the little ones.

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If you will send us your subscription at once, or that of a friend, we will send you this pattern with full particulars—all for 30 cents—just 5 cents more than the price of FARM AND FIRESIDE alone.

TOY BEAR

Pattern cut in one size, bear 15 inches high. Quantity of material required, half a yard of thirty-six-inch material, with a small piece of chamois or leather eight inches square for paws, and two buttons for eyes.

FREE We will send this pattern free for a three years' subscription at the Special Bargain Price of 50c.

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If he hasn't them, send direct to us for a pair on this guaranty. We pay express charges. Catalogue free.

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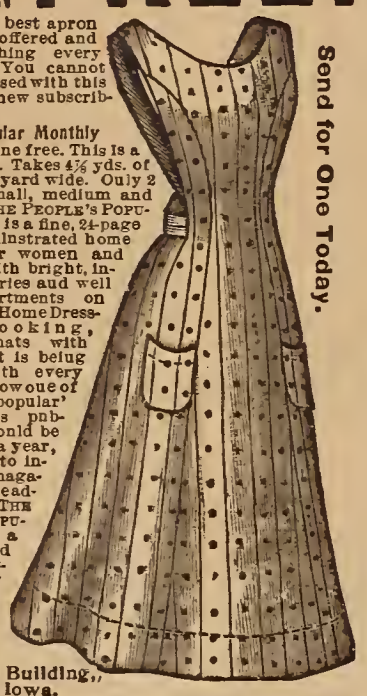
APRON PATTERN FREE!



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will receive one free. This is a prize pattern. Takes 4½ yds. of material one yard wide. Only 2 buttons. Small, medium and large size. THE PEOPLE'S POPULAR MONTHLY is a fine, 24-page beautifully illustrated home magazine for women and girls, filled with bright, interesting stories and well edited departments on Fancy Work, Home Dressmaking, Cooking, Flowers, Chats with Girls, etc. It is being improved with every issue and is now one of the most "popular" story papers published. It would be cheap at 50c a year, but in order to introduce our magazine to new readers we send THE PEOPLE'S POPULAR MONTHLY a full year and the apron pattern for only 25c. Address,

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Simple Practical Fashions

By Grace Margaret Gould

No. 825—Dressing-Sacque, with Sleeves in Two Styles

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and three fourths yards of tweuty-two-inch material, or three and three fourths yards of thirty-six-inch material. When long sleeves are used one half yard extra will be required.

Albatross and landsdowne are both satisfactory materials to use in making a dainty sacque of this sort, using lace and ribbou velvet for the trimming. French flannel would also do nicely

No. 824—Girl's School Dress

Pattern cut for 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 8 years, four yards of thirty-six-inch material, or three yards of forty-four-inch material, with one fourth of a yard of lace for yoke

IT is the economical mother who realizes how much can be saved by making her little girl's school dresses at home. Many times there are partly worn gowns that may be remodeled for this purpose, but even when new material is purchased for the dress the family scrap-bag will produce bits of lace, braid, velvet or plaid silk which will combine prettily with the material, and save the expense of buying new trimmings.

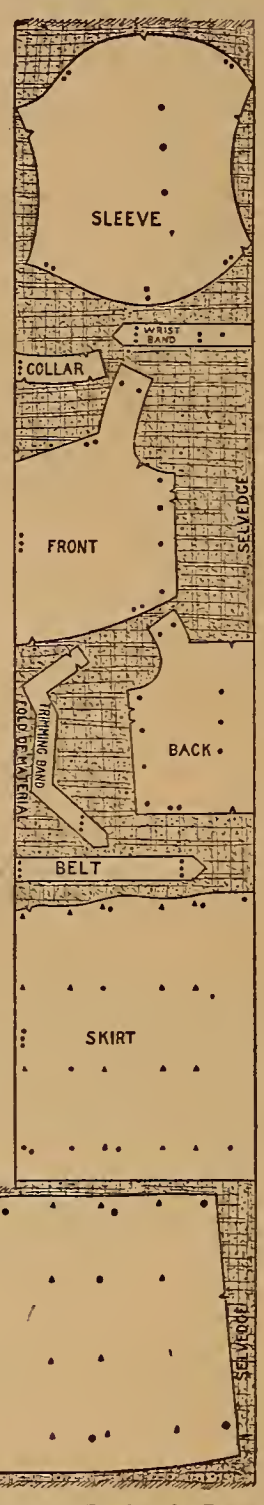
Just now, when buttons are so extensively used as a trimming, the button-box, which contains buttons that have been hoarded for many years, is also in great demand.

The mother who can sew just a little, but who would not think of making a gown for herself, may be persuaded to attempt one for her small daughter. If she does try she is sure to become much interested in the work, for homemade clothes, if properly made, afford an opportunity for displaying one's individual taste. And that's always interesting.

The very first essential in home dressmaking is an accurate and perfectly simple pattern. It must be stylish, simple and absolutely correct in cut. All of these requirements are prominent features of the FARM AND FIRESIDE MADISON SQUARE PATTERNS.

Every detail of our patterns is most carefully considered. It is impossible to mistake one part for another, an error so frequently made by the amateur dressmaker, because each piece of the pattern is designated by a letter perforated through the tissue-paper pattern and referred to in the description on the envelope by that letter.

Women who do not know a great deal about dressmaking, as well as those who have sewed for years, will do well to try their skill with these patterns.



The Most Economical Way of Placing the Pieces of Pattern No. 824 on the Material

No. 827—Misses' Corset-Cover

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, two yards of twenty-two-inch material, or one and one half yards of thirty-six-inch material, with one and seven eighths yards of beading, and three yards of lace for trimming.

This corset-cover is made with a seamless back having gathers at the waist. The front is full and gathered, and closes with buttons and buttonholes worked through a box plait. A casing is stitched at the waist line, through which tape or ribbon is run to adjust the fulness

No. 828—Misses' Closed Drawers

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, one yard of thirty-six-inch material, with one and one half yards of beading and three yards of lace for trimming

◈

Baby's Outfit

The Baby's Outfit, No. 831, illustrated on this page, is something out of the ordinary. It contains seventeen dainty garments for baby, each garment has been designed especially to suit the requirements. Every mother takes pride in making the dainty apparel of her child, and no matter how inexperienced she can give these garments the correct cut and fit by the aid of these patterns.

◈

PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the size and number of the pattern desired.

Our fall and winter catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

No. 831—Baby's Outfit (Including 17 Patterns). Patterns cut in one size. This is special—instead of ten cents for each pattern, we will send complete outfit of 17 patterns for 30 cents

In a Miscellaneous Way

The Mound-Builders

ONE OF the early races that occupied this country before its settlement by the white man was that known as the mound-builders. Of the mounds still in existence, practically all, or nearly so, are round. In Adams County, Ohio, there still exists a strange, unique relic of the work of this primitive people. The mound is shaped evidently to represent a serpent. At one end it has the appearance of a pair of widely distended jaws, and just beyond is an elliptical wing, presumably to signify an egg. The tail is loosely coiled in three rings. The area distance from the end of the oval ring to the outermost ring of the tail is about 500 feet, and if the figure could be pulled out straight its length, including the oval object near the head, would be 1,335 feet, or fully a quarter of a mile. The body at its largest width is 20 feet, and the tail tapers to 4 or 5 feet wide. The height varies from 4 to 6 feet.

The mound was discovered by Squier and Davis in 1845, who reported it to the Smithsonian Institution. Its preservation is due to the activity of Prof. F. W. Putnam, of Boston, and the generosity of Miss Alice Fletcher, of the same city, who furnished the money to purchase the land and create a park. The place was not properly cared for, however, and at the suggestion of E. O. Randall, Secretary of the Ohio State Archelogical and Historical Society, the custody of the work was wisely intrusted to that organization. The illustration herewith is a reproduction from a publication by Mr. Randall.

On the subject of mounds, the New York "Tribune" says, that another effigy of the same kind was discovered years ago near Toronto, Canada.

It is called the Otonabee serpent mound, because it is situated in Otonabee County. Professor David Boyle, of Toronto, says that excavation in the Canadian mound revealed two skeletons in a sitting posture, besides extra arm and leg bones, a skull, and the teeth of dogs or wolves. The head of the Otonabee serpent points to the eastward, and there is a representation of an egg opposite the open mouth. Similar formations (but possibly without the egg) are known to exist at Mayville, Green Lake, Madison, Potosi and other places in Wisconsin, and at least one has been found in Illinois.

Mr. Randall discusses at much length the possible significance of the form of these mounds. The serpent was an object of worship by many ancient nations, though it is not easy to understand how such ideas could have been imported into America in the days when ocean transportation was dangerous. Yet there seems to be a probability that they did get here, and had some influence on the usages of the early inhabitants of the continent.

◈

How to Be Happy Though Married

A Chicago wife who just celebrated the sixtieth anniversary of a happy marriage gives the following advice as the way to do it:

"If you want to have a happy married life," says an expert,
"And, of course, that's what each woman's aiming for,
Now let me pour into your ears, young women, just a bit
Of the sixty years of wisdom I've in store.
Don't think a stock of knowledge will increase his love for you;
Of beauty he'll get tired a little bit;
So after you have got him, if you want to hold him fast,
Just feed him well and make him think he's 'It.'

"Don't try for a career to make his name a famous one,
And cause the world to stare in awed surprise;
To advertise that you're the senior partner in the firm
Won't make you sweeter in your husband's eyes.
Don't join the women's clubs and take a part in politics,
So men will say, 'Your wife, Smith, made a hit.'
He won't be half as happy, as contented and as proud
As if he gets good grub and thinks he's 'It.'

"Don't go against the grain of human nature when it's male,
If you marry, girls, to have a happy life;
No man may be a hero, as saws hold, to his valet,
But each man expects to be one to his wife.
It isn't all your beauty and your talents that will charm;
He won't come home soon just to hear your wit;
So after you have got him, if you want to hold him fast,
Just feed him well and make him think he's 'It.'"

—Baltimore American.

◈

Maude Roosevelt's great serial story opens in this issue.

Czar's Remarkable Watch

THERE is in the possession of the czar a very remarkable watch. It was made by a Polish mechanic named Jules Curzon. The late czar had heard some wonderful tales about the inventive ability of this man, and, wishing personally to test his skill, he sent him a parcel containing a few copper nails, some wood chippings, a piece of broken glass, an old cracked china cup, some wire, and a few cribbage-board pegs. Accompanying this was a command to make them into a timepiece. Within a remarkably short time the czar received them back in the shape of a watch. The case was made of china and the works of the other odds and ends. So pleased and astonished was the czar that he sent for the man, conferred several distinctions on him, and pensioned him.

◈

Commonwealth Characteristics

The most religious state—Mass.
The cleanly state—Wash.
The most egotistical state—Me.
The sickliest state—Ill.
The most maidenly state—Miss.
The medical state—Md.
The most paternal state—Pa.
The mining state—Ore.

Exactly, brother, and we may add:
The bunco state—Conn.
The deep in debt state—O.
The coy state—La.
The personal state—U.
The swift divorce state—S. D.
The liquid state—Flo.
The card-sharp state—Mont.
And the oldest state—Ark.—Boston Transcript.

◈

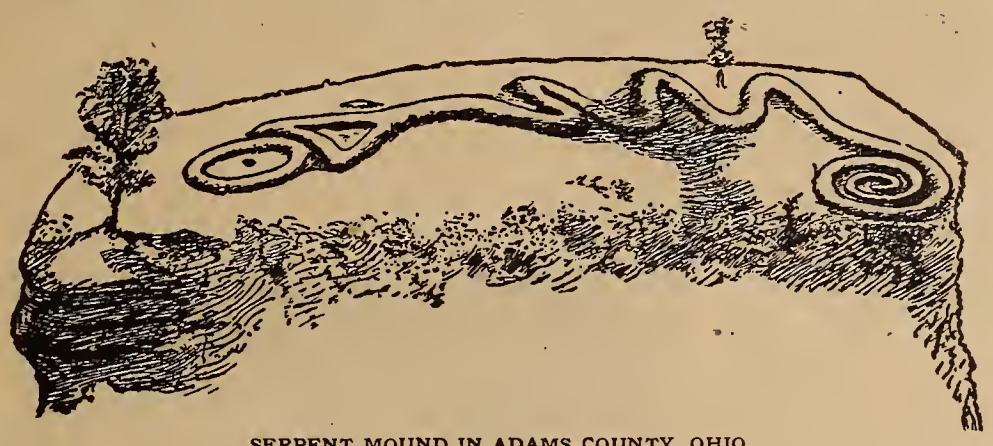
London's Cemetery for Pets

BURIAL grounds for the exclusive repose of the pampered pets of the wealthy are not unknown in this country, as New York City and other cities have plots set apart for the purpose, though perhaps on a less elaborate scale than the famous burial place in London, England. This tiny plot of ground, says the New York "Sun," is in the very heart of fashionable London, a remarkable bit of Hyde Park. It is not far from Kensington Gardens, but it is so hidden from the gaze of the vulgar that one looks in vain for it unless one inquires of the gate-keeper.

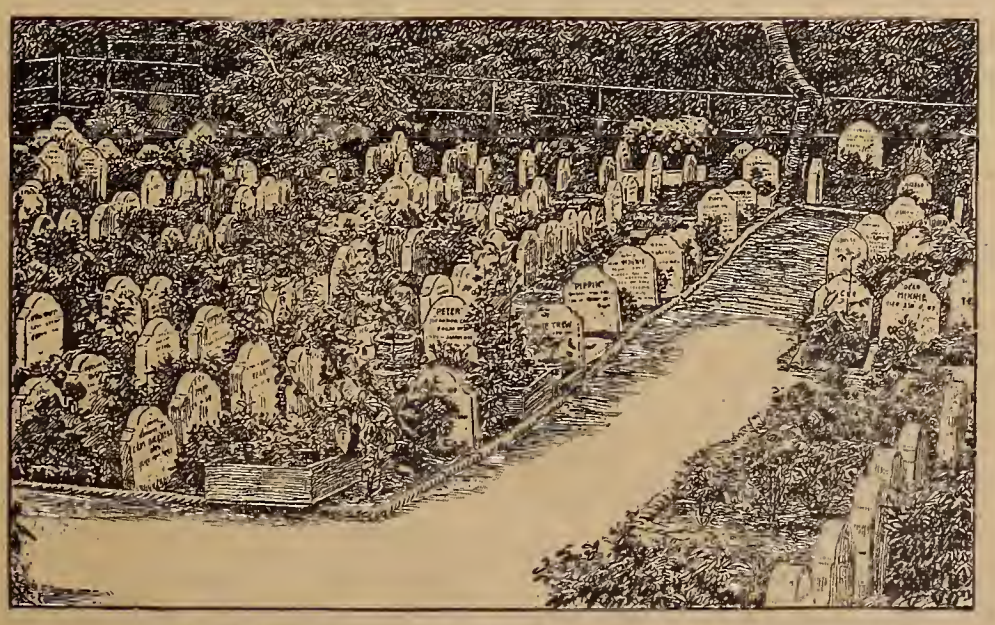
He directs you to the man in charge, an affable person in livery, who unlocks a little door to the right of the gate house and shows you in with a smile which implies both pity and amusement. But at last you are repaid for all your trouble, for here is a miniature graveyard, where are buried pets of all kinds, from dogs and cats to birds and monkeys.

It occupies not much more space than the back yard of a city house, and yet it has three avenues. Grass and flowers cover the graves, while small monuments preserve the memory of the dear departed.

And the tributes on the headstones! They are in all degrees of tenderness, from "In loving memory of our Robbie" to the tragic announcement that with the death of Timmie "Sunshine has passed out of our lives."



SERPENT MOUND IN ADAMS COUNTY, OHIO



MONUMENTS ERECTED TO THE MEMORY OF THE PETS OF LONDON'S WEALTHY FOLKS

◈

What Remains

They've haled the beef trust into court,
But the price remains the same;
Forbade the flour trust to extort,
But the price remains the same.
They've roundly dressed the oil trust down
And done the woolen trust up brown,
But still in country and in town
The price remains the same.

Insurance folks have been raked o'er
And the price remains the same;
Been told to go and sin no more,
But the price remains the same.
They gave the salt trust stern advice,
Likewise the trust that sells the ice.
But how about the selling price?
Oh, that remains the same!
—Louisville Courier-Journal.

◈

Whisky of Ancient Origin

THE word whisky is of Irish origin. Indeed, the Irish claim that whisky itself is of Irish origin, and, moreover, that the Irish taught the Scotch people how to make whisky. As for the name, it springs from the Irish word "uisgue," which means water. The distilled spirit was called by the Irish in ancient times "uisgue beatha," or life-giving water.

Distillation is a process said to have been known to the Arabians in remote ages, but the first author to speak of it explicitly—and he speaks of it also as a recent discovery—was a chemist who lived in the thirteenth century. Arnoldus de Villa Nova deemed distillation to be the universal panacea which all ages had sought for in vain. The cry of "modern degeneration" was raised even in those far-off days, and a pupil of Nova, one Raymond Lully, of Majorca, acclaiming distilled waters as a divine emanation, declared that it was destined to revive the energies of "modern decrepitude." This "aqua vitæ," indeed, denoted the consummation of all things in the brain of Lully. —People's Magazine.

◈

Copyright Laws of Nations

THE laws governing copyright privileges in the different nations of the world are strikingly different.

Twenty-eight years mark the term in the United States, with the right of extension for fourteen years more, in all forty-two years.

Mexico, Guatemala and Venezuela, in perpetuity.

Colombia, author's life and eighty years after.

Spain, author's life and eighty years after.

Belgium, author's life and fifty years after.

Ecuador, author's life and fifty years after.

Norway, author's life and fifty years after.

Peru, author's life and fifty years after.

Russia, author's life and fifty years after.

Italy, author's life and forty years after; the full term to be eighty years in any event.

France, author's life and thirty years after.

Germany, author's life and thirty years after.

Austria, author's life and thirty years after.

Switzerland, author's life and thirty years after.

Japan, author's life and thirty years after.

Haiti, author's life, widow's life, children's lives, and twenty years after the close of the latest period.

Brazil, author's life and ten years after.

Sweden, author's life and ten years after.

Roumania, author's life and ten years after.

Great Britain, author's life and seven years after his decease; to be forty-two years in any event.

Bolivia, full term of author's life.

Denmark and Holland, fifty years.

◈

I've Got the Brand

Look where the eagle builds his nest:
Far up on yonder mountain crest,
And where his young in safety rest —
Without a care.
Look where the eagle plumes his flight,
And soars above the highest height,
Where starry vigils pierce the night—
God's face is there.

Look deep into the deepest dell,
Look deeper still where angels fell,
And in the depths of deepest hell,
Aud black despair.
Look straight with eyes that know no fear,
And you will see and feel and hear
The unafraid, and love to cheer—
God's face is there.

Oh, brother mine, and sisters, too,
Don't stretch your good face out o' tune—
Love's lariat encircles you.
Give me your hand.
You're just a wayward maverick stray;
Drive superstitious ghosts away,
And join God's brotherhood to-day—
And take the brand.

God's brand! Why, every little flower
That blossoms in His richest bower,
Is branded with His wondrous power,
And mighty hand.
And thus in everything I see,
From bursting buds to tallest tree,
God's face is peeping out at me—
I've got the brand.
—By Captain Jack Crawford.

◈

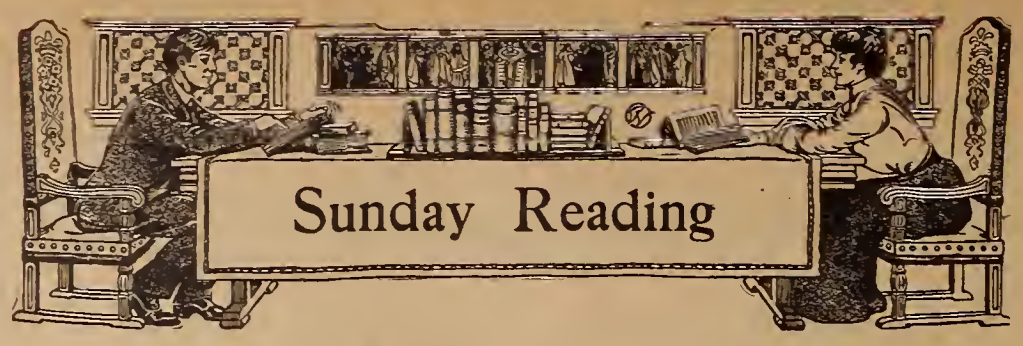
To Him that Hath

Measure me not by what I may achieve,
Nor mark my progress by the height I gain;
How can you know with what sore hurt and pain
I strive for that which others but receive?
How can you know how I am weighted down,
What dead men's sins press heavy on my soul?
Or how I can but creep toward the goal,
While others pass me, reaching for their crown?

By this, I pray you, mark my onward way—
The daily strife with bonds that hold me fast,
Like shadowy fingers, reaching from the past,
Holding a token which I must obey;
Pity the fettered feet that but mark time,
While others march, and gain the hills Sublime.
NINETTE M. LOWATER.

◈

A large advertiser recently said: "We find FARM AND FIRESIDE one of the best papers we use." This means that many of our people have ordered his goods. All our advertisers are reliable and will be glad to answer your letter if you want to inquire about anything in their line. In writing, don't fail to mention FARM AND FIRESIDE.



Take Time

ONE of America's greatest preachers was invited to address the evening session of the Indian Conference at Mohonk, a year or two ago, on the subject of world-wide missions, says the Rev. John Timothy Stone, of Baltimore.

The afternoon was beautiful, and the companionship delightful; but he excused himself with the remark, "I must be alone," adding: "If a man has two hours to speak, he may prepare in fifteen minutes; but, if he has fifteen minutes, he needs two hours to prepare." Careful, clear, precise, and effective utterance needs preparation.

An appointment had been made with a great financier and philanthropist. The proposition was vast and important. Hours of quiet study and analysis were spent in framing a statement, explicit but comprehensive, which could be stated in five minutes. That five minutes affected thousands of lives in their mental and spiritual development, for that five minutes had diamond-cut words. A rambling presentation would have wearied and lost.

An ideal college president, manly, scholarly, and courteous, presented a former student and friend a valued volume from his carefully chosen library. It was the personal touch which showed the heart. The younger man requested an inscription on the fly-leaf. That thoughtful, busy man took fully ten minutes in concentrated thought to pen those few words of affectionate regard.

A famous writer tells us that "great men show their greatness by the way they treat little men." Work well done is golden, and especially valuable in a day of tinsel exterior. To train the mind and faculties to rapid work is wise, but expeditious action must be thoughtful and superlative. Time taken to do anything is sufficiently valuable to do it thoroughly and well.

◈

Discouraged

DISCOURAGEMENTS come; of course they will. Who ever heard of a springtime that was all sunshine, of gold so pure that it contained no particle of dross, of prosperity so great that it never met with even the slightest reverse? Every life must meet some disappointments and sorrows. Then, why not meet them with philosophical manhood and womanhood, and seek to overcome their influences by precaution and earnest striving and the determination to make the best of everything in life? In the lessons of adversity may be found the training that shall fit for future achievements.

Warren Hastings, when a boy, used to grieve over the fact that his family had lost through misfortune their ancestral estate at Daylesford. But in the midst of his disappointment would come a new determination.

"I will buy that back!" he exclaimed again and again. And well did he carry out the resolution of his youth. He grew up to be one of the leading statesmen of his age; he did buy back his old family estate, and ended his days at Daylesford.

Discouraged? Let the word and the thought have no place in your life. Manhood is made for better things. The disheartening trials of to-day may be made the means of greater strength and a more satisfactory position on the morrow. Only, they are to be bravely met and conquered, not shirked and cowardly avoided. Even when sorrow comes, behind it may be seen the kind, loving countenance of a Father who wills well to all his children, and who gives liberally to all such as ask him even sustaining grace and encouragement.

Discouraged? Think not of the burdens, but count the blessings of your life. Do not the mercies far outnumber the trials? The world is not a wilderness of woe, as a hymn unwisely puts it; but it is our Father's glorious workmanship, and his work is always good.

Discouraged? Sit not idly by the wayside in sackcloth and ashes. Be a doer; strive for the blessings you would have; conquer the difficulties that beset your pathway; learn to find happiness in carrying happiness to others; learn the gospel of work and helpfulness, and there will be no room left in life for discouragement. — Young People's Weekly.

◈

The Boy Problem

IT IS an encouraging sign that the attention of the Church and of the ministry is being turned toward that long-neglected but potential element of society, the boy. And it is high time. For if we do not save the boy for Christ, the Church and the State, the devil gets him, says the "Evangelical Messenger." There is no denying the interest of the subject. A clever writer has said:

"When the Almighty created the first man, He made the world significant; when He created the first boy, He made it interesting. If a man was molded from the dust of the earth, the boy was compounded out of dust and electricity. The electricity constitutes the boy problem, and this problem besets the village no less than the city. . . . Boyishness is always in eager readiness for excitement, an unorganized energy as swift to evil as to good, occupying itself with breakable street-lamps and irascible old gentlemen, unless more legitimate employment is in sight.

The Rev. W. B. Fitzgerald writes thus interestingly of the Boy in the London "Methodist Times:"

"The average boy is a perplexity. The only problem to compare with him is that puzzle in petticoats—the girl. To understand a boy you must know a lot about human nature—of the past as well as the present. All kinds of elemental forces well up in him. There is a bit of the savage at times, and not a little of the knight, if you know how to call it forth. No study is more fascinating, and none that needs more patience, tact, and sympathy, than the study of boy nature. A great deal is put down to original sin which is untamed energy. Mischief, in thousands of instances, is simply the outflow of riotous vitality. Moody's street-boys, who varied the monotony of the lesson by turning cart-wheels, were just relieving forces which could be pent up no longer, and which they had never learned to control. It would be well if all who have to do with boys had Moody's sagacity — and Moody's love.

"A boy, to begin with, is—or ought to be—*a splendid little animal.* He has the fun of the monkey, and the activity of the squirrel, and the pluck of the terrier. If he has not, it just shows that the physical side is weak, and in need of development. All work for boys must take account of the fact that there are energies in the boy which must have an outlet, and which, if disciplined, will make him a stronger and finer man. In America great attention has been given to the subject of organized games.

"There is a vein of heroism in boys far too seldom appealed to. I shall never forget a story once told by Thomas Johnson, of Charter Street, Manchester. There was a little lad who blacked boots near one of the stations, close to where a bridge crossed a canal. One day a cry came from the water—a little child had fallen in. There were big, hulking men about, but before they in their dazed way began to move, the little shoeblack had dropped his brushes, jumped on the towing-path and into the water, and soon brought the drowning child to shore. Yes, and, soaked as he was, he waited for no thanks, but was up at his post again, crying: 'Black your boots, sir?' to the next comer, all unconscious of the fact that he was as true a hero as ever walked the streets of the great city. And deep in every lad's heart there is something of the same fine instinct.

"One needs to learn how to call out these better impulses, and develop these forces in right directions. It is all well enough to say that if we save the parents we reach the boys. But the parents should be converted when they are boys and girls. Get hold of the future generation in its adolescent stage. *Save the boys.*"

◈

A Prayer Appropriate to the Day

LET me do my work each day; and, if the darkened hours of despair overcome me, may I not forget the strength that comforted me in the desolation of other times. May I still remember the bright hours that found me walking over the silent hills of my childhood, or dreaming on the margin of the quiet river, when a light glowed within me and I promised my early God to have courage amid the tempests of the changing years. Spare me from bitterness and from the sharp passions of unguarded moments. May I not forget that poverty and riches are of the spirit. Though the world knows me not, may my thoughts and actions be such as shall keep me friendly with myself. Lift my eyes from the earth, and let me not forget the uses of the stars. Forbid that I should judge others lest I condemn myself. Let me not follow the clamor of the world, but walk calmly in the path. Give me a few friends who love me for what I am; and keep ever burning before my vagrant steps the kindly light of hope. And though age and infirmity overtake me, and I come not within sight of the castle of my dreams, teach me still to be thankful for life, and for time's olden memories that are good and sweet; and may the evening's twilight find me gentle still.—Visitor.

Photo by Mrs. N. F. Cones
RETURNING THANKS

◈

A Magazine for the Blind

A MAGAZINE for the blind, the first to be published in America, and the second periodical of the kind in the world, is to be issued in New York. Mrs. William Zeigler, widow of the late capitalist, who has a blind son, has supplied the funds, and the magazine is to be sent free to the 70,000 blind people in the country. Walter G. Holmes, 1931 Broadway, is to be the publisher. The new magazine will contain the news of the day, short stories reprinted by permission from the leading periodicals, and contributions from the blind readers themselves. Letters from the inmates of the state blind asylums all over the country, telling of the work that is being done by the inmates of those institutions, of the tasks of their daily rounds and of their ambitions, will be a leading feature of the "Zeigler Magazine for the Blind," as it will be called. The design of the publication is to bring the blind into communication with the world, and thus brighten their lives and give them some relief from the long monotony of the days that are not marked by the coming and the waning of the light. The mechanical work attending the production of the periodical will be unique. There are two systems of type reading now in use among blind people—the Braille and the New York point, and the magazine will be printed in both types. In both systems the alphabet for the blind is composed of characters derived from varying combinations of raised dots. These combinations of dots each represent a letter of the alphabet, and the finger tips of the blind slipping over the points become the eyes of the reader. To prepare a printed page for the blind a machine like a typewriter is operated which records small holes on a very thin sheet of copper. Upon this copper plate the paper in a moist condition is pressed and each puncture leaves its raised imprint on the pulp. When dried this paper is the printed page. The new magazine will contain 100 pages, necessarily printed only on one side. As the government permits all literature for the blind to go through the mails without postage, the new magazine will be carried without charge.—The Presbyterian Banner.

◈

Faith

RELIGIOUS faith is a launching out into the deep. It is the splendid venture of the soul into the unseen and the unknown. It is a vision, a prophecy. It is a confidence in invisible realities, which the heart feels, but which cannot be established by any tangible evidences. But it does not follow that such faith is without grounds or reasons. Its reasons are largely in intuition and feeling, rather than in mere logical reasoning. They appeal to him who has the eye to see them. No one will have a religious faith who insists on proving everything that he believes. Religious faith has its reasons, and they are quite as cogent as if they were of the purely logical order. They are based on the nature and needs of the soul. They rest on its affinity with God, and on its perception of its connection with a spiritual and eternal order.

But in this respect religion is not unlike life in general. We always believe more than we know, and we must believe before we can know. Our very life is rooted in faith. We cannot even prove our own existence. Trust in the veracity of our faculties is the basis of all knowledge. And when we advance beyond the world of sense-perception, we find that the same holds good. We believe in God on the basis of indications which are not demonstrative, but which carry the consent of the mind by their accord with what we know of man. The more we contemplate the world and life, the more impossible it seems to explain anything except on the assumption of an all-pervading Spirit in whose image we are made.—S. S. Times.

◈

Application

CHRIST knows our thoughts. Men know what is in us only when we speak. But Jesus reads our hearts and knows our feelings, our desires, our motives. We ought to watch our inner life and remember that Jesus knows all that goes on within us. There are but two parties in this world—those who are for Christ and those who are against him. There is no middle ground. We ought to make very sure that we are on Christ's side. The only way to judge of men is by their lives, by their acts, their words, their dispositions, their characters. The way to make a tree good is not by picking the bad fruit off its branches—we must get the tree changed in its nature. The only way to make an evil life holy is by giving it a new heart.

Our words are a great deal more important than we suppose them to be. "By thy words thou shalt be justified, and by thy words thou shalt be condemned."

It is not enough that our words shall not be bad or impure; but they must be positively good. Even idle words, words that mean nothing—trivial, senseless, empty words—must be accounted for. It is a high honor that Jesus gives to those who obey his commandments; they become his own kin.—Evangelical Messenger.

◈

Papa's Kiss

"Why don't you kiss like mamma?"
  Asked the little maid of three,
As she ran to greet her papa,
  And climbed upon his knee.
"Her tisses taste like candy,
  And is dood enough to eat;
But your mouf do taste awful,
  And ain't the least bit sweet."

"That is so," replied the father—
  Her eyes he dare not meet—
"There's no reason why, my darling,
  My kiss should not be sweet."
To him the thought was galling,
  That each evening with his kiss,
He had thoughtlessly polluted
  Those innocent young lips.

"Come here, dear wife and mother,
  And help me take this vow:
Neither liquor nor tobacco
  Shall touch my lips from now.
And oh, dear Heavenly Father,
  Thou who art good and wise,
I thank Thee for this angel
  Who has opened my blind eyes."

—Samuel F. Harker.

Tax Title Claim

W. H. B., Kansas—By the laws of Kansas a purchaser of a tax title is entitled to a deed from the debtor after three years have elapsed from the time that the land was sold. If A. has a good tax deed on this lot, it is barely possible that his title may be superior to yours, and that you will have to pay him whatever he asks if you wish to clear up your title.

◈

Fence Law

W. B., Wisconsin—The fence laws of the various states are entirely of a statutory character, and it is very difficult for me always to give correct answers to such queries as yours. I should rather think that you could compel them to build their share of a partition fence, but you had better consult some local authority. A neighboring justice of the peace, your township officials, or the prosecuting attorney might answer.

◈

Right of Life Tenant to Sell Timber

A. S., Oregon, writes: "We have 40 acres of land which is deeded to our sons. With the exception, plainly stated in the deed, that we have full use and control of the same as long as both or either of us live. Now it is mostly timber, and Mr. B. is too old and feeble to clear it for a farm, but have a chance to sell some of the timber for money to help ourselves. Now would we or not have the right to sell the timber without our sons' consent?"

I presume from your statement that you and your husband have reserved a life estate to this property. Whether or not you could use some of this timber will depend upon the fact whether your making a sale of the timber will depreciate the value of the land. If it does, you have no right to take it, if it does not, then you can sell it.

◈

Construction of Will

E. E., Georgia, writes: "I am told that a testator cannot give to children not living (or yet to be born). As my father left mine to me I want to sell the land. I am told, when my father gave it to me it was all right, but when he added to it, this clause, if she dies without issue and to revert back to his estate, that this weakened or released binding. See provision of will below. Can I sell this land lawfully? (Clause.) 'I give and bequeath to my daughter A. C. for and during her natural life, ninety-four acres of land. At her death said land to go to and vest in her children if any. But if she dies without issue, then to revert to my estate, and be divided between my heirs-at-law.'"

The provision that you refer to, that a testator cannot give to children not living, does not have the application that you are inclined to give it, and in the provision of the will that you give in your query, certainly the daughter only gets a life estate. At her death it will go just as the will says, and if the daughter dies without children it will go back to the daughter's father's heirs, and be settled between them as the law provides.

◈

Right of Husband to Sell Real Estate

W. H. W., Mississippi—As I understand the law of Mississippi, there seems to be no particular reservation of rights to property held as a homestead, in reference to a disposal of the same as distinguished from other real estate, and while the law is not plain to me, I presume that in no case could the husband sell his real estate and deprive his wife of all marital rights therein. As dower has been extinguished in your state I am not familiar as to the wife's rights in the real estate of her husband, and would advise you to consult a local attorney.

◈

Per Capita Tax

M. H., Pennsylvania, writes: "Can I be compelled to pay the per capita tax on two properties if I have property assessed in two townships?"

I am not fully advised as to the exact language of your road law, but a per capita tax is as its name applies, an individual tax, and is only taxable in the township where the individual resides. If there is a road-tax placed upon your property, as a general rule it would be payable in the township where the property is located.

◈

Line Fence

E. J. O., Ohio, writes: "What is the length of time a fence must be located between two farms to establish a line?"

In Ohio, and generally in most states, if a fence is built on what is supposed to be a line between adjoining landowners, and so continues and is used as such line fence for a period of twenty-one years, it becomes an established line between different properties.

The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit $1.00, addressed to "Law Department," this office, and get the answer by mail

Right to Collect Interest on Note

A. B., Ohio—I see no reason why A. should complain. By his contract he agreed to take the $400 for one year and pay 6 per cent. The fact that he afterward got some money and arranged to make a payment was no reason why B. should be obliged to take it. It seems to me that A. is acting very small about the matter, and he is now trying to get out of the contract that he fairly made. I see no reason why B. should be obliged to take this money or to give any rebate on his note.

◈

Establishment of Lost Deed

W. M. G.—The parties could go into court, and bring action to establish the title, and give proof that the deed was lost. The courts in such cases require strong evidence that there was a deed of the kind. An easier way, if the parties are all alive and all agree, would be to have a new deed made. If this is impossible, however, the course to pursue is to bring an action in court.

◈

Dower Interest in Joint Property

F. M. N., Ohio, writes: "A man has a large family of children. He gives two of his sons a farm, making a joint deed. The sons are both married, but have no children. If one of the sons dies, would his wife receive his half of the farm? Or would his parents and brothers and sisters receive a share?"

If one of the sons died without children, under the laws of Ohio this property having been received by him by a deed of gift, his wife would have a life estate in one half of the farm. At her death it would go back to his brothers and sisters.

◈

Payment of Note

C. L. D., Massachusetts, asks: "A note was given ten years ago; four years ago, ten dollars was paid as interest. He says now it was paid for other things. Will receipting a promissory note by holder renew and keep it good?"

I do not exactly know what the querist means by receipting a promissory note. If he means whether an endorsement of payment on the note will hold it good or prevent the statute of limitations from running, I would say this: If a credit was made on a note which was intended by the maker at the time to be a payment on the note, that would be sufficient to keep it alive.

◈

Right to Recover Property Held by Another

E. W., West Virginia, writes: "A. C. W., took the agency to take orders for enlarging pictures and was to do the delivering for the N. A. & C. Co. They sent him a bond to sign, that he was to pay for everything that he received, let it be good or bad, or if the people took the pictures are not, A. C. W., would not sign the bond, but wrote to them to return the small pictures, but they will not return them. Is there any way in law to force them to return the pictures, as he has wrote to them eight or ten times to send them back?"

The only way that I would know that you would have to recover those pictures would be to find them, and then bring an action in replevin. This is somewhat of an expensive proceeding, and unless the pictures are of considerable value it would not be worth the trouble.

◈

Validity of Marriage Does Not Depend Upon the Name Assumed by the Parties

H. H. E. C., Alabama—The fact that a person is married in a name other than the correct one will not affect the legality of the marriage. So in the case you give, the marriage is a valid one.

◈

Obligation of Railroads to Provide Drains

E. K., Virginia, says: "I had a ditch dug on my land in order to drain it, and it does that as far as it can, but a railroad line runs through my farm and it has a deficient culvert that stops all the water coming in from the ditch on one side and floods a large tract of my land. Am I right in thinking that the company is obliged to open this culvert or pay damages? If the company is not willing to open this culvert, can I do it myself without bringing liabilities upon myself, or could they prosecute me if I did so?"

Most of the states have laws providing that railroads are obliged to furnish sufficient culverts to carry off the water that would naturally flow in that direction. Anyway, whether there is such a statute or not, the railroad would not have a right to obstruct the water in such a way as to injure the lands of any adjoining landowner. Most assuredly, the adjoining landowner would have a right to open the culvert himself to let the water flow through, provided such opening would not cause the roadway to give way. If it is not a very great task this would be the easiest way to get a remedy. Perhaps if you notified the railroad company, they would clean out this culvert.

◈

Right to Sell Poultry Recipe

E. R. N., Ohio, writes: "I have a recipe for a poultry food which I purchased from an incubator company. Would I dare manufacture same and sell throughout Ohio and United States, and would I have to pay license?"

Unless the matter is patented or covered by a copyright or trade-mark, of course you could manufacture it, and sell it. I do not know of any requirement that you should have a license to use it.

◈

Statute of Limitations Running Against a Note Belonging to a Wife Held by Her Husband

S. C., Maryland, asks: "A. gives B., his wife, a promissory, interest-bearing note, with seal. Suppose it was let run for thirty or forty years, and no interest is credited on it, and A. the husband dies, could it be outlawed by the other heirs? What steps should the wife take to make it good?"

As a general proposition, I would say that the note is barred and cannot now be recovered. Whether the wife was acting under coercion of the husband in not presenting the note or compelling its payment before it was barred, would be a defense to this statute of limitation. It might possibly raise a question that the courts would be compelled to decide. Ordinarily the wife is absolute owner and controller of her own property, and if she holds notes for her husband she must proceed the same as if held against some other person.

◈

Providing Channel from Overflow of Spring

J. R., Ohio, writes: "I have a spring of water that overflows and runs through neighbor's land. Will I have to ditch the overflow through his land, or shall he drain his own land in this case?"

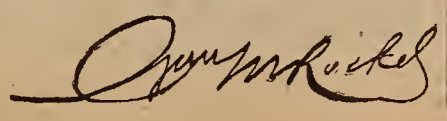
It is a general principle of law, that no one is obliged to take care of water in any other way than nature put it. If this spring naturally overflows your neighbor, he has no right to complain, and you are not obliged to furnish any drain or ditch for the same. If he wishes to take care of the water in any other way than nature put it, that is a matter within his control, and the expenses attached thereto will have to be born by him.

◈

Right of the Husband to Mortgage Chattel Property

C. E., Ohio, asks: "Can a man give a mortgage on household goods without the knowledge or consent of his wife?"

The presumption of the law is, that all the personal property in the possession of the family belongs to the husband. This comes from the fact that, by the old common law, when a woman married her personal property became his; and so it has continued down to this day, that the husband may sell or mortgage his chattel property without the consent of the wife, although in that way she might be deprived of all interest that she otherwise might enforce. Of course, the husband has no right to sell the wife's property. Modern laws recognize the wife's ownership in such property as is distinctly hers, and she could sell and dispose of the same without the consent of her husband, just as well as he could sell his without her consent.



Making the Home Cheerful

HOW TO PROVIDE AMUSEMENT FOR OLD AND YOUNG

Fun and Entertainment for All

The editor of this magazine has frequently urged his readers to do all they can towards making the home as cheerful as possible for all the family.

Now I want to tell you how you can cheer and brighten your home in a simply wonderful way Just think! You can get a genuine Edison phonograph on free trial in your home, and to be paid for if acceptable at the rate of 50c a week and upward. The very finest kind of a genuine Edison outfit—the outfit No. 5—by far the best talking machine ever made—on easy payments for less than $1.00 per week! Those who prefer to send cash in full after free trial may do so, but nobody should send any money in advance, not a cent, until after free trial. See the offer at the bottom of this column.

If you have never had a genuine Edison phonograph in your home you cannot IMAGINE what a wonderful pleasure it will be to you. "What pieces can I hear on the phonograph?" some may ask.

Well you can hear almost anything. There are 1500 genuine Edison gold moulded records and you can have your choice of these.

Suppose you get some minstrel show records reproducing to absolute perfection the greatest comic artists. Then take some band music, Sousa's Marches, Waltzes by Strauss, soul stirring lively music, then grand opera concert

Music For Your Home

pieces as well as the finest vocal solos; also comic songs, ragtime, dialogs, comic recitations, piano, organ, violin, banjo and other instrumental music; all kinds of sacred music, duets, quartettes, full choruses.

The Edison records are perfect—absolutely natural—and unlike the inferior though higher priced records of others, *the Edison records never become rasping and scratchy.*

This wonderful instrument, I think, is far, far better than a piano or organ, though costing only one-fifth or one-tenth as much; for it gives you endless variety, it always plays perfectly and everybody can play it.

With an Edison phonograph in your home you can arrange a concert at any time with just such a programme as brings $1 and $2 a seat in the opera houses of a big city.

Or if you like dancing you can arrange a dance in your own home or in any hall; for the Edison phonograph is loud enough.

Yes, indeed the Edison phonograph is "the king of entertainers for the home."

Read what Mr. Edison says; read the great free-trial easy-payment offer at the bottom of this column.

Mr. Edison says:

"I want to see a Phonograph in every American home."

Send no money

Free Trial

Free Trial Means Free Trial
No Money Down. No C. O. D.

Try the wonderful Edison phonograph in your own home before you decide to buy Then if acceptable pay on easiest possible payments: 50c a week and upward. Only $3.50 a month for the very finest kind of a genuine Edison phonograph.

SIGN

This Coupon

now and get the great Edison catalogs and full explanation of the wonderful free trial offer. Don't bother with writing a letter. Just write your name and address plainly on the coupon and mail today.

Frederick Babson.

FREDERICK BABSON, Edison Phonograph Distributers, 149-150 Michigan Avenue, Suite 3188 B, Chicago
Without any obligation on me, please send me free, prepaid, your catalog of Edison phonographs, your free circulars of the great Outfit No. 5 and terms of payment.

Name_____

Address_____

Wit and Humor

The Demand of Labor

It was formerly the custom of a paper-mill in Massachusetts to pay semi-monthly; and, having found the practise somewhat inconvenient from their standpoint, the operatives decided to send a delegate to the head of the firm to state their grievance. An Irishman, rather well known for his sagacity and persuasive powers, was selected for the task. He duly waited on the "boss," who said: "Well, Michael, what can I do for you?"

"If ye plase, sor," said Mike, "I've been sint as a diligate by the workers to ask a favor of ye regardin' the paymint of our wages."

"What do they want?"

"Sor, it is the desire of mesilf an' of ivery other man in the establishment that we resayve our semi-monthly pay every week."—Lippincott's.

◈

Willing to Oblige

Stories were being told "over the wine and walnuts."

An English nobleman had just finished a tale of a tiger he had shot, which measured twenty-four feet from snout to tail-tip. Every one was astonished, but no one ventured to insinuate a doubt as to the truth of the story.

Presently a Scotsman told his tale. He had caught a fish which, he said, he was unable to pull in alone, managing only to land it at last with the aid of six friends. It was a skate, and it covered two acres.

Silence followed this recital, during which the offended nobleman left the table. The host followed. After returning, he said to the Scotsman:

"Sir, you have insulted my lord; you must apologize.

"I didna insult him," said the Scot.

"Yes, you did, with your two-acre-fish story. You must apologize."

"Well," said the offender slowly, with the air of one making a great concession, "tell him, if he will take ten feet off that tiger, I will see what I can do with the fish."

◈

Most Unkindest Cut

With reference to the humors of country "society" reporting, Mr. Melville Stone, of the Associated Press, tells of the account of a wedding published in a Kansas paper.

The story, which described the marriage in the usual flowery adjectives, concluded with this surprising announcement:

"The bridegroom's present to the bride was a handsome diamond brooch, together with many other beautiful things in cut glass."—Harper's Weekly.

◈

Too Long

A retail dealer in buggies, doing business in one of the larger towns in northern Indiana, wrote to a firm in the East ordering a car-load of buggies. The firm wired him:

"Cannot ship buggies until you pay for your last consignment."

"Unable to wait so long," telegraphed the buggy dealer; "cancel the order."—Everybody's.

◈

A Military Career

"So you would like your baby when he grows up to enter the army. But suppose he does not develop any special ability for a military career?"

"Oh he's done that already. He has made himself quite familiar with the use of arms, and has led many a weary midnight march."—Baltimore American.

◈

A Thanksgiving Story

Pa sed tu me the uther day,
(One time wen we halled in sum hay.)
He sed: "Now, boy, if you'll be good,
An get yure ma a lot of wood,
An hep yure pa a lot,
We'll lode the gun, an hav sum fun,
A-killin turkeys on the run,
An we won't let em rot!
For 'twill be Thanksgiving!"

The time did come, one fair, fair day;
Pa sed we'd have tu hall in hay;
The hay wuz dry an it mite rain—
An then, we had tu cut our cane,
An hall it to the mill!
But next year, when Thanksgiving comes,
If I am well, an still at home.
I'll hunt some, yes, I will!
For 'twill be Thanksgiving!

—Bil.

◈

Really Important

"There, my son, that will do for this time," sternly interrupted the long-suffering parent. "I don't know who was the first man to invent wrestling, nor how many mickles make a muckle, nor how many is many, nor how few is few, nor how a sailor smokes his hornpipe, nor why Good Friday never comes on a Tuesday, nor why rabbits can't add, subtract and divide, as well as multiply, nor why an owl should hoot and not howl, nor the answer to any one of the many other foolish questions that your abnormally developed bump of inquisitiveness incites you to propound."

Yes, but, father, I don't want to ask any silly questions! This is a most important one. Please, do you think when a stout man is self-contained, he has more room inside of himself to contain himself in than a thin man has, or is himself so big that he is just as tightly crowded inside of himself as the thin man is, and how much of himself is it that is self-contained, and how much is on the outside doing the containing and ——"

"Clarence, go to bed this instant!"—People's Magazine.

◈

Money

Friends a-smilin' ev'rywhere,
Weather lookin' mighty fair;
Skies a soft an' tender blue,
Birds a-singin' songs to you.
"Hello, there!" an' "Mornin', Bill!"
How their eyes with gladness fill;
How they grab your hand an' shake,
How they bid you come an' take
Somethin' wet an' hot with them,
Jes' to loosen up the flem
In your throat, fer 'tis so,
Sich like favors count, you know,
When a man has money.

Don't th' world look bright an' fine,
In her gown of sun an' shine?
Hain't she smilin' sweet an' pert,
Like a reg'lar little flirt?
Don't th' glad hands to you reach?
Don't they holler, "You're a peach?"
Don't luck come jes' on th' whirr,
When you hain't a-needin' her?
Don't things come, oh, don't they, say,
Come a-runnin' down your way?
Don't it seem an easy game,
Pilin' up some more th' same,
When a man has money?

—Whitewood Plaindealer.

◈

Mr. Dooley on the Printed Word

"Th' printed wurrud! What can I do against it? I can buy a gun to protect me against me inimy. I can change me name to save me fr'm th' gran' jury. But there's no escape f'r good man or bad fr'm th' printed wurrud. It follows me wheriver I go an' sthrikes me down in church, in me office, and in me very home. There was me frind, Jawn D. Three years ago he seemed insured against punishment ayether here or hereafter. A happy man, a religious man. He had squared th' ligislachures, th' coorts, th' pollyticians an' th' Baptist clargy. He saw th' dollars hoppin' out iv ivery lamp chimbley in th' wurruld an' hurrying' to'rd him. His heart was pure seein' that he had never done wrong save in th' way of business. His head was hairless, but unbowed. Ivry Mondah mornin' I read iv him leadin' a chorus iv 'Onward Christyan sogers marchin' f'r th' stuff.' He was at peace with th' wurruld, th' flesh an' th' divvle. A good man! What cud harm him? An' so it seemed he might pro-ceed to th' grave whin, lo an' behold, up in his path leaps a lady with a pen in hand an' off goes Jawn D. f'r th' tall timbers. A lady, mind ye, dips a pen into an inkwell! there's an explosion an' what's left iv Jawn D. an' his power wudden't frighten crows away fr'm a corn-field. Who's afraid iv Rockyfeller now? Th' Prisidint hits him a kick, a counthry grand jury indicts him, a goluf caddy overcharges him an' whin he comes back fr'm Europe he has as many polisman to meet him on th' pier as Doc Owens. A year ago, annybody wud take his money. Now if he wanted to give it even to Chancellor Day he'd have to meet him in a barn at midnight."—P. F. Dunne in American Magazine.

◈

Absorbed

Sharpe—"Why, yes, I was at church last Sunday."

Kloseman — "Were you, really? Strange I didn't see you."

Sharpe—"Oh, not at all. I took up the collection.'—Philadelphia Press.

◈

Matrimonial

Three Germans were sitting at luncheon recently, and were discussing the second marriage of a mutua friend, when one of them remarked:

"I'll tell you vhat. A man vhat marries de second time don't deserve tc have lost his first vhife."—Life.

Photo by William Mohaupt

"THERE'S A DARK MAN A-COMIN' WITH A BUNDLE"

"Sister's Best Feller"

My sister's "best feller" is most six-foot-three,
And as handsome and strong as a feller can be;
And Sis, she's so little and slender and small,
You never would think she could boss him at all;
But, my jing!
She don't do a thing
But make him jump round like he worked with a string;
It just makes me 'shamed of him sometimes, you know,
To think that he'll let a girl bully him so.

He goes to walk with her and carries her muff
And coats and umbrellas, and that kind of stuff;
She loads him with things that must weigh 'most a ton;
And, honest, he likes it, as if it was fun.
And, oh, say!
When they go to a play
He'll sit in the parlor and fidgit away,
And she won't come down till it's quarter past eight,
And then she'll scold him 'cause they get there so late.

He spends heaps of money a-buyin' her things
Like candy and flowers and presents and rings;
But all he's got for 'em's a handkerchief-case—
A fussed-up concern made of ribbons and lace—
But, my land!
He thinks it's just grand,
'Cause she made it, he says, "with her own little hand."
He calls her an "angel"—I heard him—and "saint,"
And "beautifulest bein' on earth"—but she ain't.

'Fore I go an errand for her any time
I just make her coax me an' give me a dime;
But that great, big silly—why, honest and true!—
He'd run forty miles if she wanted him to.
Oh, gee-whiz!
I tell you what 'tis!
I just think it's awful—those actions of his.
I won't fall in love when I'm grown—no, sir-ree!
My sister's "best feller" 's a warnin' to me!

—Puck.

◈

The Morning After the Dance

The dance broke up at two a. m., we reached our beds at four,
At five o'clock the farmer's fist was rapping at our door.
"Wake up," says he, "your breakfast waits—we're most uncommon late;
The hogs are squealing 'Give us corn,' the cows are at the gate."
We heard his heavy tread retreat along the naked floor,
Six steps it may have been, or seven—and then we heard no more.
Sleep's touch that sealed our eyelids down was feather-soft and sweet;
Our dreams were all of sparkling eyes and little twinkling feet.
Again we waltzed Matilda Jane and Annabel and Sue,
And chasséd down the middle of the parlor, two by two;
But, just as we were bowing our partners to their chairs,
The farmer's cowhide boots again were heard upon the stairs.
With sighs and groans, we fumbled and grumbled in the gloom,
For shoes and such etceteras that carpeted the room.
The frost was on the drowsy corn what time we drove that way;
The moon still lit the silent vault, as when we came from play;
The reedy ponds were garmented with gossamery lines;
The stars were blinking sleepily above the somber pines;
The sun was gilding Boston's domes a thousand miles down East,
And evening seemed a thousand years away from us, at least.
A thousand years from two of us—Bill's thoughts were lighter-toned;
He grinned and gaped and chuckled while we yawned and husked and groaned.
"Which one?" says Jim, "Matilda?" and Bill replied, "It's Sue;
And every ear I'm husking now I'm husking it for two."
Quoth Jim: "Congratulations—but before this day is done,
I reckon I'll be mighty glad I'm husking 'em for one,"

—Frank Putnam.

No Hurry

"All the little boys and girls who want to go to heaven," said the Sunday-school superintendent, "will please rise."

All rose but Tommy Twaddles.

"And doesn't this little boy want to go to heaven?"

"N-not yit!"—Cleveland Leader.

◈

Both

"So, Tommie, you wish to be excused from school this afternoon?"

"Yes'm."

"Is your excuse a good one or is it baseball?"

"Both, ma'am."—Cleveland Plain Dealer.

◈

Take a Day for It

Office-boy—"What name, please?"

Foreign Visitor—"Herr Schwartselburghhausenmastergeschaftsmongosmanteufel."

Office-boy—"You'll have to call again,

Teacher—"What is velocity?"
Boy—"It's what a hungry dog eats a plate of warm victuals with."

sir. The office closes in five minutes, and I sha'n't have time to pronounce your name before the boss is gone."—Bon Vivant.

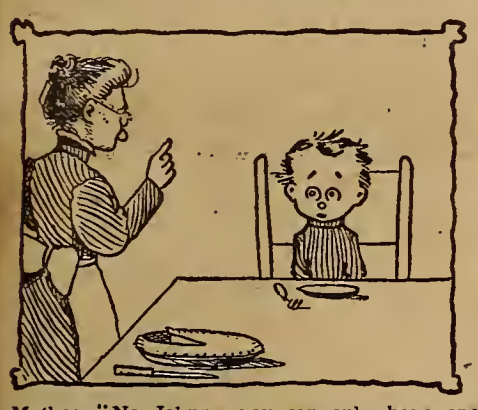
◈

Another Packing-House Scandal

A man who was running a lunch-stand out in a Western town used only canned goods.

The Indians from a near-by reservation had seen him take so many different things from cans that seemed to them should be growing in the open air that they began to wonder what he would bring next.

One day he got a graphaphone and



Mother—"No, Johnny, you can only have one piece of pie."
Son—"Huh! you're so anxious for me to learn how to eat, and yet you won't give me a chance to practise."

started it to playing. A crowd soon collected, among it several Indians.

Someone went up to a group of Indians and asked what they thought of it. The reply was a shrug of the shoulders and the expressive "Ugh!" Finally he went up to one young brave and asked his opinion. The Indian thought awhile and then said calmly: "Ugh! Canned white man!"—Judge's Magazine of Fun.

◈

Generous to a Fault

Congressman Perkins was in the office of a friend, a justice of the peace, when a couple came in to be married. After the ceremony the justice accepted a modest fee, and handed the bride an umbrella as she went out.

Mr. Perkins looked on gravely, and

He—"I see some trust out west is going to try to corner all the chickens in the country."
She—"Well, they'll have their hands full if they try to corner that old Dominick rooster of ours. Blamed if he can't run like a deer, and keep it up, too."

asked, "Do you always do that Charlie?"

"Do what? Marry them? Oh, yes."

"No; I mean bestow a present upon the bride."

"A present? Why, wasn't that her umbrella?" gasped the justice.

"No; it was mine," replied the Congressman, sadly.—Epworth Herald.

◈

Have you started to read Maude Roosevelt's new story, the opening chapters of which are printed in this issue of FARM AND FIRESIDE?

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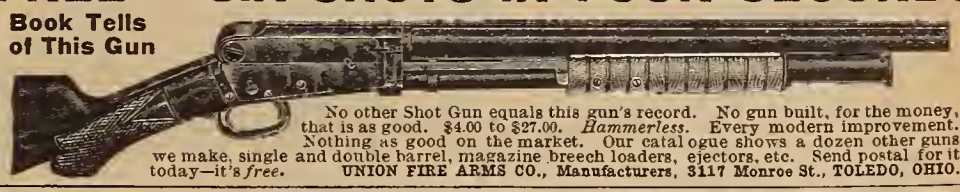

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CHRISTMAS

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Little Science Stories

[CONTINUED FROM PAGE 23]

the proper material for the construction of transmitters. Accordingly, in 1878, the first carbon transmitter was completed and proved successful, the strength of the electric currents being greatly increased, conveying the sounds of the voice to remarkable distances with great clearness and accuracy.

Since the completion of the Bell instrument, the most notable achievement in telephonic science has been made by Doctor Pupin, of Columbia University, New York. It is said that Pupin received an inspiration from seeing how waves of vibration in a cord are strengthened by lightly loading it at certain exact points, which are determined by the length of the waves. He reasoned that by applying the same method to telephone transmission, by inserting induction coils in a long conductor at certain precise intervals, an electric current could traverse it for a great distance without a perceptible loss of force.

The result of Doctor Pupin's remarkable discovery is that conversation by telephone at a distance of three thousand miles or more is made practicable. It is also deemed as practicable through submarine cables, and bids fair to make the telephone a common instrument of communication between continent and continent.

Two years after Bell's remarkable invention was made known to the world, the first telephone exchange was established in the United States. The practical value of telephonic communication became at once apparent, and other systems were installed throughout the country, with the result that to-day, twenty-six years from the time the first exchange was built, the United States is a perfect network of connecting wires. Every village has adopted this means of communication, and it is only a question of time until there is a telephone in every household in the land.

The report of the American Telephone and Telegraph Company for the year ending December 31, 1904, gives a fair idea of the growth of the telephone system since Bell's invention was first put into practical use. It says in part: "Twenty-three years ago there were 47,880 telephone subscribers in the United States and 29,714 miles of wire in use for telephonic purposes. At the end of last year there were 800,880 exchange stations equipped with our instruments, and 1,961,801 miles of wire were employed for exchange and toll-line service. From the beginning the United States has led all other nations in the number of instruments used and in the employment of modern approved appliances tending to greater efficiency.

Next in numbers to the United States come the following countries in the order named: German Empire, Great Britain, Sweden, France, Switzerland, Austria, Russia, Norway.

The estimated number of daily calls at that time (1900) was 5,668,986, a total per year of about 1,825,000,000.

◈

Thanksgiving

In the gloaming of November
With its foliage of gold,
Comes again the glad Thanksgiving
With its customs dear and old;
And beneath the starry banner
As it floats from sea to sea,
We a happy Nation gather,
Fears at rest, for all are free.

Not a hand in all this Nation,
In the East or in the West,
Bars the mansion or the cottage
To the kind Thanksgiving guest;
From the balmy groves of Southland
To the nodding pines of Maine,
Nature, filled with joy and triumph,
Spreads the yearly feast again.

We are thankful for the blessings
That have crowned our cherished land—
Fruitful orchards, golden harvests,
Peace and love from strand to strand;
'Neath November's robes of beauty
Hidden lies the warrior's sword
And the olive branch is hanging
O'er Columbia's festal board.

Aye, from mountain unto mountain,
'Neath the Union's azure dome,
To the feast we spread each autumn,
Bid the absent welcome home.
Round the board where all are merry
Let the rarest sunlight play,
With the love-key of Thanksgiving
Open every heart to-day.

Heaping full are all our garners,
And our rivers as they run
Sing a matchless song of plenty
To the distant seas of sun;
As a people God has blessed us—
Who are happier to-day?
Let the land from mount to ocean
Sing a sweet Thanksgiving lay.

Hail the hallowed Thanksgiving
That the Pilgrim Fathers gave!
'Tis their legacy forever
On the land and on the wave.
Then, as Freedom's chosen people,
We our destiny fulfil,
Let the future's glad Thanksgivings
Find us grander, greater still.

—T. C. Harbaugh.

Photo by Richard W. Seaman

GOOD ENOUGH FOR THE PRESIDENT

The Giant's Week

A Clever Little Story for the Young People

"THERE is a ge-ge-gentleman ou-outside who wa-ants to see you!" said the Keeper of the gate, rushing into the throne-room, where the King and Queen and their little Royal Highnesses were holding a reception with all their best crowns and other things on.

The Master of Ceremonies was amazed to see the Keeper, and especially because the Keeper's hair stood right straight up, his knees were knocking together, and his face was as white as the King's shirt-collar.

"Excuse me, Your Majesty," exclaimed the Master of Ceremonies, "but really the Keeper must be out of his senses." So saying, the Master of Ceremonies seized the Keeper and tried to drag him out.

"No-o-o, I'm not," cried the Keeper; "b-but this ge-gen—"

"Don't you know you mustn't stutter before their Royal Highnesses?" said the Master of Ceremonies, angrily.

"G-goodness me!" gasped the Keeper, "this gentleman is a gi-gi-giant!"

"A giant!" exclaimed all the little Royal Highnesses; "how delightful!" and they all rushed from the throne-room to see the show.

At this the Keeper promptly fainted, and the royal reception came to an end because the whole roomful of Court ladies were struggling to see which could get first to the Keeper with a bottle of smelling-salts. Presently one of the little Princes came running into the room in high glee.

"Oh, papa!" he cried to the King, "it's a tremendous, real, truly giant, and he has come to see you!"

"Show him in, somebody," said the King.

At this the little Prince began to laugh. "Why, papa, he couldn't get one foot inside the door!"

There was a sudden silence when the people in the throne-room heard this, and many of them became serious.

"I hope," said the Master of Ceremonies, "that Your Majesty will be careful of your precious person. This giant may be a dangerous creature!"

"Pooh!" exclaimed the Prince, who did not like the Master of Ceremonies, "he is as good-natured as he can stick. Do, papa, come out and see him."

"I hope Your Majesty will remain indoors," said the Master of Ceremonies.

"Indoors!" said the Prince. "Why, if the Giant wanted to, he could carry off the whole palace under one arm."

"There may be sense in what the boy says," remarked the King, "and maybe it would be wisest not to anger this creature. I think it is my duty to face the danger."

"Danger!" the Prince repeated; "there isn't any danger at all."

As there seemed nothing better to do, the King took his son by the hand and went out to the courtyard. As soon as he reached the doorway he saw the giant—a really remarkable giant. This was no circus giant of seven or eight feet in height, but a real tower of a man whose head was higher than the flag that floated far above the castle roof. Yet he seemed gentle, and was laughing and trying to hear what the children in the courtyard were shouting to him.

The King called out, "Who and what are you?"

The Giant leaned downward toward the doorway, and said, "Are you the King?"

"Yes."

"Well, I'm John E. Normous, and I have just arrived from Giant Land."

"I didn't know there was such a place," answered the King.

"Very likely not," answered the Giant. "We don't often go visiting."

"Well, it's very kind of you to call upon us," said the King, at the top of his voice.

"Not so very," replied the Giant. "I'm one of the Visiting Committee."

"Ah, I see," said the King; "and you come to—" Then he paused, hoping the Giant would go on.

"I will explain," the Giant returned, very good-naturedly. "You can see that I am very big, and very strong."

"Oh, yes," the King answered, "I can see that."

"Well, we Giants on the Visiting Committee are sent around to different countries now and then to see how they are getting along."

"Of course, of course," was the King's remark. "We shall be very glad to have you look about and make yourself acquainted with our land. No doubt it will be rather difficult to provide for you, but—"

"Don't trouble yourselves about that," the Giant replied; "we always carry our own provisions;" and he tapped a haversack which he wore slung at his side. "I sha'n't make any trouble of that kind, but you may not find my visit a very agreeable one. In short, I wish to see how the business is carried on—whether justice is done, things fairly distributed, and everything properly attended to. I shall settle down with you for a week, and meanwhile shall keep a sharp lookout for all the rascals in high or low places; and at the end of the week—well at that time I will show you what I came for." Here the Giant examined the club he carried—the trunk of a great pine tree, like a ship's mast. Then he went on, "I shall take up my residence near the mountain over there, and I shall be glad to see any of the people who care to call, especially the children."

The Giant bowed politely, took two or three steps and was far away.

The King returned slowly and thoughtfully to the throne-room, where he found the Queen sitting alone.

They looked at each other in silence for a moment, and then he spoke:

"Where shall we go, my love?"

"Go? What do you mean?"

"Why, we must be miles and miles away from here by next week," replied the King. "You heard what the brute said?"

"Are you afraid of the Giant?" asked the Queen.

The King squirmed uneasily in his chair.

"I think it would be wiser to take no risks," the King replied at last. "Come, let us see to packing the trunks."

Next day the Court Physician announced that Their Majesties must have sea air, and in three days the Court was in a fast express-train and on its way to the coast. So eager were all the great officials of the Court to attend on Their Majesties that only those stayed who were positively commanded by the King to remain in the capital. Also the greater part of the fashionable people of the city were soon on their way to distant parts of the land.

Meanwhile, after some of the bolder spirits among the citizens had visited Mr. John E. Normous and found him most entertaining and agreeable, others went and even took their children. With the children the Giant was a very great favorite. He would put two fingers under their arms and lift them high into the air, and let them run races around his hat-brim. Or he would place them on the hands of his watch, first removing the crystal, and let them run races around his hat brim. ride on the great second-hand; but even the minute-hand was very good fun. And he would let them climb up tall trees and high mountains, keeping his big hands below so they couldn't fall.

Every now and then he would remind his visitors of his intention to return to the city at the end of the week.

So the time passed, and at length came the day for the Giant's return. Just as the sun rose he was seen in the distance, coming down toward the city with giant strides. As he approached a few scurrying figures departed at full speed—on horseback, in carriages, and in a few trains that had been specially kept in waiting.

By the time the Giant reached the palace, followed by a crowd of children and some of the citizens, the palace was empty except for about half a dozen hard-working officers, including the Keeper.

The Giant strode up to the castle front and called to the Keeper.

"Where is the King?"

"Gone, Mr. Normous."

"Where?"

"I can't say. He left no address."

"Well, is there anybody of importance left?"

"No, sir; nobody in particular. Let me see— Oh, yes, there's the Third-Assistant Treasurer!"

"Call him."

"Here he is," said the Keeper, pointing to a quiet-looking little gentleman in a rusty suit of clothes.

"Are you the highest officer that didn't run away?" asked the Giant.

"I believe so, Mr. Normous," the Third-Assistant Treasurer replied.

"Very well," replied the Giant; "then I will just ask you to post this little notice."

"He waved his hand good-humoredly to the citizens, turned on his heel and walked away"

The Giant handed over a roll of paper containing the following:

TO THE GOOD CITIZENS WHO REMAINED TO WELCOME ME

GREETING:—This is to thank you all for your kind attention and friendly calls, and to leave word that I have enjoyed my little visit very much; in fact, so much that I may return at any time without previous notice.

I do not find it necessary to carry out any reforms at present, as I understand most of the rascals have for a time left the city. But if I shall find any of them here on my return—which may take place at any time—I shall know how to deal with them. Farewell—for the present.

Yours very respectfully,

JOHN E. NORMOUS.

When this placard had been displayed the Giant waved his hand good-humoredly to the citizens, turned on his heel and walked away. From that time it is strange how cheerful that land became. Yet happy as it was, neither the King nor any of the rest who had taken a vacation during what became known as the "Giant's Week" ever came back. Nor did anyone ever see again John E. Normous, Esq.

TUDOR JENKS.

The Electric Telegraph

AS FAR back as the year 1753, the first suggestion of an electric telegraph was made in a letter published in the "Scots Magazine," in Edinburgh. The letter was signed with the initials, "C. M.," and many efforts have since been made to discover the author's identity. The plan suggested was that a set of twenty-six wires, representing the letters of the alphabet, should be stretched upon insulated supports between the two places which it was desired to put in connection, and that a metallic ball should be suspended from each end of every wire, having under it a letter of the alphabet inscribed upon a piece of paper. The message was to be read off at the receiving stations by closely observing the letters which were attracted in turn by their corresponding balls as soon as the wires attached to the latter received a charge from the distant conductor.

It remained for Monsieur Lomond, of Paris, to reduce the twenty-six wires to one, indicating the different letters by simple movements of an indicator, which consisted of a pith ball suspended by means of a thread from a conductor in contact with the wire. This was in 1787.

Three years later, Chappe devised a means of communication which consisted of two clocks which were so regulated that the second hands moved in unison, pointing at the same instant to the same figures. The exact moment at which the party at the receiving station should read off the figure to which the hand pointed was indicated by means of a sound signal produced by the primitive method of striking a copper stewpan. Chappe soon invented a method, however, of giving electrical instead of sound signals.

Don Francisco Salva and Sir Francis Ronalds became interested in the subject, and offered many valuable suggestions, as did also Sommering, a German inventor. About this time Oersted's discovery of the action of the electric current upon a suspended magnetic needle provided a new and much more hopeful method of applying the electric current to telegraphy. The European philosophers kept groping, however, in scientific darkness for six years or more after Oersted's discovery, until Joseph Henry, a young American, began a series of investigations which have now become historic.

Up to Henry's time electro-magnets had been made of a single coil of wire wound spirally around the core, with wide intervals between the strands. The core was insulated, the wire not at all. Henry followed the idea of Schweigger, who had covered his wires with silk, and, instead of using a single coil of wire, used several. In place of using one coil through which the electric current could easily slip, Henry made a coil of many turns, constructing it of fine wire, this insuring higher resistance.

To test the value of his discovery, he put up the first electro-magnet telegraph ever constructed. In the academy at Albany, New York, in 1831, he suspended about 1.060 feet of bell wire, with a battery at one end and one of his magnets at the other. The magnet served the purpose of attracting and releasing its armature, which struck a bell and made the signals. And thus in a few short months this young inventor had succeeded in annihilating distance.

Still, the invention was not perfect enough for practical use, and the task of bringing it down to a commercial possibility fell to another distinguished American. In 1832, while returning from France to the United States, Samuel F. B. Morse, an American artist, conceived the idea of a telegraph which should be constructed along the following lines: "A single circuit of conductors from a suitable generator of electricity; a system of signs, consisting of dots or points and spaces to represent numerals; a method of causing the electricity to mark or imprint these signs upon a strip or ribbon of paper by the action of a magnet operating upon the paper by means of a lever, armed at one end with a pen or pencil; and a method of moving the paper ribbon to receive the characters at a uniform rate by means of clock-work."

The first working model of his invention was constructed by autumn of the year 1835, and two years afterward he gave a first public exhibition, on which occasion the marking was successfully effected through one third of a mile of wire. Shortly after he constructed a recording instrument, which was employed on the first experimental line between Washington and Baltimore. This line was constructed in 1843-44, under an appropriation of Congress, and was completed by May of the latter year. On the twenty-seventh day of that month the first despatch was transmitted from Washington to Baltimore. The invention was a complete success, and opened up to an astonished world a new and rapid means of communication.

The Tulip-Tree

(LIRIODENDRON TULIPIFERA)

So seldom is the name tulip-tree mentioned that many persons are inclined to believe that there are no such trees to be found; but should yellow poplar or white wood be mentioned, the same persons would instantly know what tree was spoken of. These are identical, and are often improperly called poplar. The poplar tree proper belongs to an entirely different order from the tulip—the latter belonging to the magnolias.

The tulip-tree generally attains a large size, often measuring one hundred and fifty feet in height and five to ten feet in diameter; but an average is about one hundred and twenty feet high and four feet in diameter. The tree is well rooted, frequently having roots two feet thick at the base, and twenty-five feet long, branched and rebranched until the earth beneath the tree seems to be a solid mass of roots extending deep into the ground. As a tree of beauty the tulip can be surpassed by few. Its foliage is very dense and of a beautiful green. The leaves appear smooth and even, being four lobed and deeply notched at the end causes the leaf to look like it had been cut squarely and then a large "V" cut from the square end. If an unfolding leaf-bud is examined closely, it will be observed that the leaf is folded forward in such a manner that the apex or point touches the base of the leaf-stem, or petiole, forming what is called a reclined venation.

The flower of this stately tree must not be considered the least conspicuous part, for many and varied are the instances in which the beautiful blossom of the tulip-tree has played its part. As to the color of this flower it may be said that it varies somewhat, yet the prevailing shades are yellow outside, and orange striped with red inside, making a very showy flower. The sepals number three, and the petals six in two rows, within which is the large seed-cone. Another important fact about the flower is that it abounds in honey of the highest quality. Among the four hundred honey-producing trees of the United States the tulip ranks second—the American linden ranking first. It is astonishing, too, the number of flowers that one tree will produce. It is not an infrequent sight to see 2,500 blossoms on a single tree. The trees often look as if they were a solid mass of yellow, interspersed here and there with a little green.

Apparently the native range of the tulip-tree was in the Eastern states, but since the white man came to America the tree has been introduced into nearly every section of the country, although it does not thrive in many regions. The greatest development seems to be in the valley of the lower Wabash River, on the western slope of the Alleghany Mountains, in North Carolina, Tennessee and in the Virginias. It is found sparingly in many other regions.

Soil and light are very important factors in the growth of yellow poplar. It flourishes best on a deep, light, sandy or clayey soil in a place which remains cool and moist. The tree is a rapid and persistent grower, and in order to be such must have a great amount of light. Thus it can easily be seen why we so often find a tulip-tree growing alone in an open wood or in an open field. The reproduction is mostly from sprouts, as the seed seldom germinate to any extent.

The wood of the so-called white-wood tree is light and soft, stiff but not strong, and is not very durable; it shrinks to a considerable extent, but seasons without injury by checking. The most important uses to which this wood is put are interior finish, boxes, panels of carriages, furniture, ship-building, and shelving. The raw material is quite a factor in commerce, as a great quantity is shipped to foreign countries each year.

The tulip-tree is also valuable as a shade tree. Every year sees more and more of these trees planted for shade purposes, and timely, too, for unless many forest trees are planted each year the time is not far distant when our most beautiful trees will be lost. It is a shame the manner in which the fine timber, the pride of our state and country, is being cut down, not only cut down but simply wasted! Not only is it the noble tulip-tree that is laid waste, but the venerable oak, the princely ash, the stately beech, the beautiful maple, the most useful walnut and linden—all must go. High time it is that there be some steps taken by the farmers and law-makers to stop this unnecessary waste of our fast-disappearing forests.

MAX W. LUTTON.

◈

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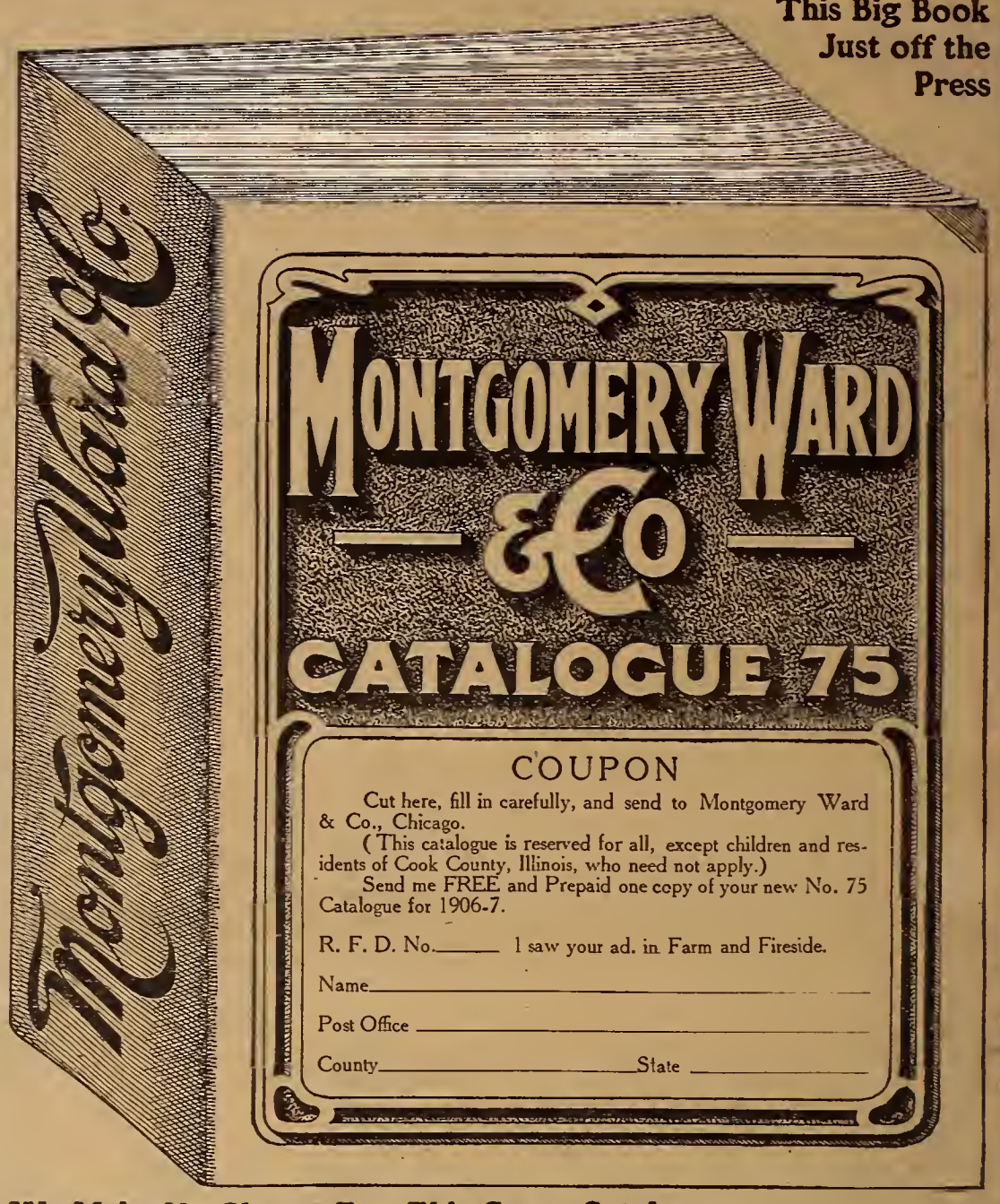

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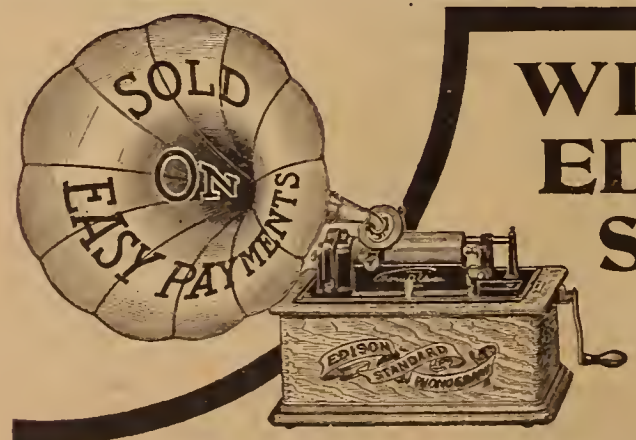

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Subsoiling

CLOSELY related to the doctrine of underdraining is that of subsoiling. Indeed, the underground ditch is placed deep in the subsoil and its best effects are upon that stratum.

The subsoil differs from the surface soil in that it is not so rich in vegetable mold and much richer in mineral compounds. In prairie countries there are several inches at the surface wholly made of dead grasses and decayed roots. This is so peaty in its nature that it will dry and burn like a stratum of chips. It is rich in carbon, and the growth it promotes is luxuriant in the extreme. I have seen the common daisy sunflower as high as the fences on the prairies of Kansas; and the growth of corn there is much the same.

But soil of that sort is deficient in body and the Kansas droughts are severe upon it. Moreover, it overlies a deposit which it needs. In the subsoil there is iron, and a fine accumulation of niter and silica, and generally deposits of phosphates. Deep roots will reach there, but some roots are not long enough to extend into that stratum, and certain crops are imperfect for lack of these important mineral elements.

Subsoiling is a process of getting the strata mixed; and no other expedient is worth more to these prairie soils.

Allow an illustration or two. In the German readers there is a story of a vine dresser who called his sons about his bed and revealed to them a secret, in these words:

"There is in the vineyard a treasure buried. Dig and find it."

"Where, Father? Where is it buried?"

The father had only strength for one word "Dig!" and with its utterance he died.

The sons believed him, for he had always spoken the truth; and they began at one side, digging two feet deep, and dug the vineyard all over. Not finding the treasure, they decided that their father's mind had been wandering. Dismissing the incident from their minds, they paid no further attention to it. But, when the fruiting season was reached, they found the grapes far more abundant and of the best quality. So they decided that the treasure was in the subsoil.

I once knew a German farmer who gave the right-of-way through his farm to a railroad company. Their line required a nine-foot cut through a knobby side of his field; and the workmen left three or four feet of dirt on his ground over a half acre or more, just as they scraped it out. He tried to get the company to remove the dirt, but did not succeed. Regarding that portion of his field ruined he nursed much indignation toward them, and resigned himself to a serious loss.

In the spring, before he was aware of it, the hands had broken it, harrowed it and planted it.

This, he supposed was a loss of seed, labor and time, but the best corn in the field, both in quantity and quality, grew on that half acre.

Every man who farms black land observantly, knows there are chaffy ears and blighted ears produced there. The elements required to give weight and solidity are in the clay; and clay is the very best of fertilizers for soils that are sandy or loamy. It contains iron in proportion to its color; and iron is the best retainer of ammonia. Clay is a good thing to cast onto the manure pile; for it will catch much of the ammonia that otherwise escapes. Further, ammonia is valuable as a source of nitrogen; and the subsoil is the nearest and cheapest deposit of clay.

There are two methods of subsoiling: one suited to black or sandy soils, the other to clay soils. The first is what I have already discussed; the bringing up of the clay stratum and mixing it with the looser deposit of the surface. There are plows adapted to this, and in former days the problem was much studied. It was always difficult and expensive, and most farmers have abandoned it.

The other is a process of agitating the underlying stratum with a wedge-shaped colter, and leaving it where it lies.

This latter, without underdraining is not of much value; for the saturation of one season will undo it all. But, with the saturation drawn off, the effect of such a breaking up will last for several years. If a powerful motor, like a traction engine, can be had to draw such a plow, either of these methods can be utilized at a moderate cost.

In fact, the first method is not bad for the clay soil; for the substrata is fresh and new, and the soil at the surface is more or less exhausted.

Many good farmers practise gradual subsoiling. That is, they break new ground, say three inches deep, which is deep enough. New ground is rich in all vital elements at the surface. Even black ground has the mineral elements from the ruins of the vegetation out of which it is made.

The second year they plow four inches deep; the third five, then six, seven and eight; the new inch supplying what has been lost in the previous season.

Later, they accomplish the effects of subsoiling, in a degree, by rotation of crops and by the use of commercial fertilizers.

This probably accounts in part for the passing of the subsoiling doctrine.

Indiana. WALTER S. SMITH.

A NORWAY PINE DRIVE

An avenue of Norway pines on the farm of J. W. Troxel, of Wayne County, Ohio. The trees are twenty-nine years old from the seed and nearly fifty feet high

Village and Farm Improvement Societies

I have been asked to discuss this subject at length, but a few words should suffice to bring the question prominently before the farmers and village folk, who live in small country towns that have no appropriations for the purpose of cleaning up the unsightly things that will accumulate with time.

There is nothing I know that adds more to the appearance and value of property in villages and farming communities than well-kept yards, streets and gardens. To do this work is comparatively easy after it is started, and the work is really a pleasure under congenial circumstances. A village improvement society is the thing for small towns, and in farming communities a farm home improvement society serves the same purpose.

It will be surprising to see how much work can be accomplished by the folk around you if they are once enlisted in the work. I did not know how much could really be done until recently, when I visited a little town about the size of my home village, and saw how things were going there. Weeds and grass grew in every corner, and desolation, or abandonment, seemed pictured on the scene. There was no regard for pleasing appearances. People gave no time to improvements.

Now there is no way to add value to the farm or small town property more cheaply than by cleaning out the debris and fixing up the yard and garden fences, pruning up old trees, shrubs and flowers, and putting out new ones. The work of rearranging the grounds also adds an attractive feature to the work. But in the meantime if your neighbor has a farm or home that does not correspond with the appearance of your own it detracts value from yours.

It is in this connection that improvement societies are so valuable. The organization is simple and easy always, for the folk are eager to take hold of anything that is really good when once they get the idea fixed. A good

[CONCLUDED ON PAGE 4]

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One of our Louisiana subscribers, M. A. Hanchey, says:

"I think your valuable paper one of the best of its kind I have ever read. It doesn't seem reasonable that such a paper can be published and sent out for such a small amount. I have been taking it for six years. Its reading is so instructive, I'm always glad when it is time for the paper to come. So I will renew my subscription."

In thanking Mr. Hanchey for his words of appreciation we shall add that he is one of many thousands of subscribers benefited by our policy of constantly improving the paper who thinks as he does. The fact is, the price of FARM AND FIRESIDE is too low. In following the policy, "Nothing too good for our people," the value of the contents of the paper has been raised far above the subscription price.

The International Live Stock Exposition at Chicago will be open December 1st to 8th. Progressive stockmen need no urging to attend the greatest show of its kind in the world. It is also a great school of instruction, and every practical stock raiser can learn valuable lessons in feeding, handling and managing live stock. Visitors can go from the show amphitheater through the great stock yards to the packing-houses, and follow the animal from "hoof to can."

For the nine months ending with September the value of the meat and dairy exports was over $25,000,000 greater than it was in the corresponding months of 1905, and over $38,000,000 greater than in the corresponding period of 1904. The Chicago market reports show the price of beef cattle to be from 65 cents to $1 higher per hundred-weight than they were a year ago. What has become of all that roaring, prophetic wind about the ruination of our live-stock industries by the passage of a federal meat inspection bill?

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A Notable Victory

The defeat of James W. Wadsworth in the 34th Congressional District of New York is an event of national importance—an accomplishment that gives hope and encouragement to citizens everywhere in this broad land who are working to bring about genuine reform in legislation and in industrial conditions. When the campaign opened it looked like a hopeless undertaking to defeat Mr. Wadsworth. He has served twenty years in Congress, is known as the "Life member from Livingston," and seemed to be invincibly intrenched in an impregnable Republican stronghold. Two years ago his plurality was 13,000; this year, Mr. Peter A. Porter, candidate of the Independent Congressional Party, defeated him by nearly five thousand.

Among the principal causes of this radical change in voting are that Mr. Wadsworth worked and voted against the Grout anti-oleomargarine bill when that measure was before Congress, that in the last session he took his stand with the Beef Trust against the President on the meat-inspection bill, and that he secured his re-nomination by machine rule.

In brief, Mr. Wadsworth, in the important position as chairman of the House Committee on Agriculture, not only misrepresented his own constituents, but the agricultural interests and the people of the entire country. Hearty congratulations to the farmers of western New York who sent Wadsworth to join Grosvenor of Ohio.

Congressman-elect Porter says: "The welfare of the agricultural interests which I represent will be my chief aim. I have taken a stand in opposition to the oleomargarine interests, which I shall maintain, and any attempt to annul the legislation which imposed a tax on the hog product will meet with my determined opposition."

It will be two years before the independent, boss-fatigued citizen can get another whack at a short-weight congressman, but since he has learned to sit up and take notice he will, most likely, be looking around for something good to practise on. He need not look far nor long. There is something now demanding his instant attention in New Jersey. A United States Senator is to be chosen soon to succeed the Hon. John Fairfield Dryden. It is a long time—six years—between senators, and the independent Jerseyman should seize the opportunity and lose no time in picking the right man—a man to serve the public, not the public service corporations.

Senator Dryden is the great apostle of thrift in the insurance world, but his thrift is so extraordinarily extortionate that his big company takes about forty per cent of the annual premiums received from policy-holders and "books" it as "expenses of management."

He has, it is true, "accumulated" some machine-rule endorsements for reëlection, but there are certainly enough public-spirited members of the New Jersey legislature who will seriously and impartially consider whether the Senator's superior business qualifications do not really disqualify him for truly representing the people of the state.

◈

A New Principle in Legislation

In a recent speech Senator Beveridge, of Indiana, explained the application of a new principle in making laws for the regulation and control of great businesses as follows:

"That principle is this: When any business becomes so great that it affects the welfare of all the people it must be regulated by the government of all the people. The people cannot permit some of them to practise methods hurtful to all of them. And the people have no agency for their protection excepting only their government.

"For example: The people eat prepared foods and use prepared medicines. Under the old theory that all business is private, and that the public has no right to interfere with it, manufacturers of foods and medicines were adulterating both. They were making enormous fortunes at the expense of the health of the millions. But this was intolerable. Our institutions are for our benefit and not for their theoretical benefit. Our institutions contemplate that men shall make honest profits in business by righteous methods that do not injure others; our institutions do not contemplate that men shall make dishonest profits in business by methods that do injure others.

"So the people had to be protected from poison in their food and drugs. How? They could not protect themselves as individuals. The states could not adequately protect them; because that business was nation-wide. Therefore, the government of all the people had to interfere with the food and drug business which affected all the people. So we passed the pure-food law, and to-day the nation's government is supervising a business which is necessary to the people, but which had been injuring the people. This same new principle that any business so great that it affects all the people must be regulated by the government of all the people, also wrote the railway rate. The old principle was that railway managers could do as they please. 'The public be d—d' said Vanderbilt. The new principle is that the public's rights in railway management are as great as the rights of the railways themselves. This new principle is the vital thing in the rate law. For the railways affect all of the people.

"This new viewpoint that all great businesses are trusts to be administered for the people, as well as organizations, to be run for profit, is already being taken even by the captains of industry themselves. For example, we investigated the Pennsylvania Railroad the other day. That fact alone shows the revolution that is occurring; for if, five years ago, anybody had suggested the investigation of the Pennsylvania Railroad, he would have been considered mad.

"But we investigated it, and found the officers of this model corporation of the world practising commercial villany—found them holding stock given them by shipping companies to which they therefore furnished cars while refusing cars to other similar shipping companies in which they did not hold stock. One of the officers giving his testimony said: 'This used to be considered all right, but we are looking at things differently to-day.'"

J. C. Barnett. Fred Grundy

The Cow's Victory

The true and full significance of Wadsworth's crushing defeat in the 34th Congressional District is probably but vaguely understood by the large majority of even those who voted for his opponent. This event may and probably will prove to be the dawn of a new era in the development of the farmer's standing in politics and in our national and state legislation. It will mean the general recognition of his power, and of the power of the agricultural press in these fields. Heretofore the politicians in our legislative halls have often paid little heed to the farmer's needs and demands, feeling safe in the supposition that the farmer will vote his regular party ticket anyway. The election in the 34th Congressional District was a test case. The farmer has won, and furnished the proof of the pudding. When hereafter, the farmer, through his organizations and the agricultural press, comes to Congress or his state legislature with his just demands, may this be for a parcels-post or for the abolition of the seed-distribution humbug, or for what-not, he will find more attentive and more willing ears on the part of the law-makers in those legislative bodies, for the latter will for a long time remember Wadsworth.

Party ties are beginning to sit rather loosely on the average voter. There seems to be a greater shifting of votes from one party to the other just now than ever happened in my recollection. This is a good sign. It shows that the average voter thinks for himself, and votes for principle rather than from habit or prejudice.

There are, however, still a large number of voters who always vote their ticket straight. But who are they? If you look about in your own district, you will find among them, first, those unable to read or write. They are those who must vote straight or run the risk of spoiling their ballot, or of voting for a different man than they desire to vote for. They are the illiterate, the ignorant, the narrow minded.

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The Independent Voter

It seems to me that the elections of this year plainly show that the average voter is becoming more independent and less bound by party labels and party bosses. The man who owns his home, either in the country or village, and reads the better class of papers is the most independent of all the voters. If the ticket gotten out by his party contains the name of one or more rabid radicals, or of men who are stubbornly opposed to progress and reforms plainly demanded, he does not hesitate a moment about scratching them off and voting for men of another party. This class of voters is steadily increasing in numbers, and they hold the balance of power. They have learned that a party label on a ticket does not make every man on that ticket the best man for the place, but that the other ticket sometimes has men on it that are better, and the frantic appeals of partisan papers and campaign orators has no effect on them. What a grand thing it is for the country to have such a large and powerful conservative class in it, to check the wild career of shallow-brained radicals and self-seeking demagogues, and to quietly set aside short-sighted political autocrats who stubbornly stand in the way of enlightened progress. Notice how this conservative class of intelligent voters quietly and unostentatiously set aside Mr. Wadsworth, the owner of the Committee on Agriculture, Mr. Grosvenor who opposed everything the farmers wanted, "stand pat" McCleary and Babcock and some others. All these men represented extreme ideas, either reactionary or radical, and our conservative voters decided that they were valueless in legislative and executive halls. The same class will quietly remove the head of the Committee on Post Offices unless we soon have some legislation favorable to a parcels-post. We are proud of the independent voter and hope his numbers will increase until party leaders will find that only good men can be elected to any office—that a party label will elect no narrow-minded block, nor eccentric theorist.

Rural Affairs and Salient Farm Notes

About Alfalfa

WHAT alfalfa can do is told by an Ohio reader in "Rural New Yorker" as follows:

"One fourth the area of this farm, or nearly so, 21 acres out of eighty-six and one half, makes it possible for me to stock up with 600 feeding lambs, when if I did not have alfalfa, and if I was not vastly more fortunate with clover than others in this section, I would not have clover hay for 100. A farmer can hardly understand the possibilities till he is in possession of a few acres and undertakes to care for it as it should be cared for."

It is undoubtedly true that alfalfa is not found on one farm in ten where it could be grown with profit, and that "a few acres of alfalfa on a stock farm will easily double its stock-carrying capacity." That much was shown me in my own trials, but also that it does not pay to attempt growing it on any but naturally well-drained, and fertile soil.

Pear Troubles

In this immediate vicinity the Bartlett pear is quite an important money crop. Many of our growers here receive hundreds and even more than a thousand dollars for the yearly crop, so that the Bartlett is of more importance to them than the apple crop, which is also a leader. But there are also some troubles which beset the pear grower. One of my neighbors brought me some Bartlett specimens for examination. His whole crop was so badly spotted and russeted, and intermixed with gnarly, lop-sided specimens that he could sell them only at low figures.

Being in doubt about some points, I forwarded the specimens (as every grower in a similar dilemma should do) to our state experiment station. In reply Prof. F. C. Stewart, the station botanist, wrote to me as follows:

"The spots on the pears are caused by the scab fungus, and this is of course preventable by spraying with Bordeaux mixture. The cause of the russetting is not clear. Had the fruit been sprayed I should have pronounced it spray injury. It strikingly resembles spray injury. Possibly it is frost injury, although frost injury commonly takes the form of a russet belt or zone, instead of being scattered irregularly over the fruit, as in this case. This season pears in many localities show the russetted belt due to late spring frosts. Kieffer pears are subject to a russetting similar to that on the specimens sent by you. It is caused by a sterile surface-growing fungus, but your specimens do not show the presence of any fungus on the russetted areas so far as I am able to determine. The lop-sided condition of one of the pears is evidently due to defective pollenation as you suggest, because when this pear was cut open the seeds on the flat side were found abortive. The gnarly condition of the other pear is due to corky eruptions caused by the attack of an insect, and our entomologist has written you about this."

The letter received from H. E. Hodgkiss, assistant entomologist, is as follows:

"Mr. Stewart has referred to me the pears which had scars upon them, and all I can say about these is that their exact cause is unknown, although probably due to a pear curculio, or it may be due to a tree hopper. We were conducting some experiments with different insects upon pears to determine the exact nature of this pest this season, but have had some indifferent results. We are intending to renew this investigation during the coming year and hope to come to some conclusive results as to what the exact cause is. I can give you no remedy for this except that if you find curculios working upon the trees, to jar the trees in a manner similar to that by which the plum trees are treated for plum curculio."

It will be seen from this that there are still many things in this line which are not fully known, even to the experts. My neighbor's pears, for instance, had not been sprayed. Otherwise the station people would undoubtedly have pronounced the russetting of the specimens spray injury, as is usually done by them in the case of apples covered with russet areas where the trees had been sprayed with Bordeaux mixture.

Philosophy for Small Farmers

A PENNSYLVANIA man writes for advice. He would like to become a farmer, but has no money wherewith to purchase a farm. Thinks he might borrow it and pay it back in a few years.

I rather think that he will meet with some difficulty in negotiating a loan under such circumstances. The only chance for him is to begin at the bottom and work up. If a man wants to become a locomotive engineer he will have to begin where he can learn how an engine is made, and for some time his wages will be very small. The beginner in farming will have to learn the business, and his profits will be small until he learns a good many things.

I know a man who four years ago declared he would drop his occupation of day laborer and become a farmer. He had a small home, a rather large family, and lots of grit, and he began by renting an acre of land and growing vegetables. He was so successful with this that he rented six acres for five years, and he is doing so well with this six acres that it is plain he will soon become a full-fledged farmer. Every day that he is not at work on his garden he is working for somebody else at good wages. He does all of his work, whether for himself or someone else, in the best manner possible, and naturally he has all he can do.

He is one of those men who passed middle life before he realized the necessity of saving up something for old age. Now he is trying to make good. Had he begun twenty years earlier in life he would, without a doubt, now be the owner of a nice little farm of his own. If he lives and keeps his health he will finally get the farm, but there are several years of hard work and close economizing before him. The Pennsylvania man can do as this man is doing, and eventually become a farmer and the owner of a farm, but he will have to get the borrowing idea out of his head, and learn to pay as he goes. When he cannot pay he must not buy, at least until he can clearly see his way out.

Last summer I met a young man who slapped me on the shoulder and exclaimed, "You're the very man I want to see!" He then told me that he had read an article of mine in the FARM AND FIRESIDE eight years ago, in which I had advised young men to get a home of their own as early in life as possible.

"I remember your advice well," said he. "It was to get a home secured, then a little ahead; then look about the earth as much as you can afford to do. It struck me as being just the thing to do, and I hustled for money to buy a certain ten acres I knew of, about a mile from town, and I got it. Then I humped myself to get a nice little cottage on it, with fences, stable and sheds, and I got them. A horse, cow and eleven pigs followed, then a bunch of as nice chickens as you ever saw. Then I knew a little girl who had been keeping tab on my doings all the while, and first thing we knew she was in the cottage. I'd saved up six hundred dollars when I read your article, and was wondering what I should do with it. Now you see I am in clover. I cleaned up a little over five hundred dollars last year off that little place, and this summer we are going on a little trip that will cost us about a hundred dollars. We can afford it, and we'll see lots of things we've been wanting to see. Hope you'll keep on urging the boys to get homes of their own, and I hope lots of them will do as well as I have."

Yesterday I received a letter from a man in which he told of his hits and misses during the past twelve years. At the beginning of this period he had saved up nearly three hundred dollars. A man wanted to borrow it and offered him forty acres of partly cut over timber land as security. The loan was made, and three years afterward he was obliged to take the land. Two years later he met with an accident that partly crippled him. Then he built a little house on the land, cleared six acres and began farming in a limited way, and raising a few pigs. Then he realized the possibilities of the place and began building pig and poultry sheds, and enlarging the clearing. "Last year," he writes, "I made a saving of six hundred dollars, and think I am safe for a like amount this year. I now fully understand why you are advising young men and laboring men to bend all their energies toward getting a home for themselves. Now, here I am in my own house, on my own land, comfortable and contented; my wife sitting by the fireside knitting me a pair of warm socks, seemingly perfectly happy, while outside a cold storm is beating on the house and the wind is roaring through the trees.

"I can tell you it pays to save pennies while you're young, and let the circuses and what the boys call good times go, for comfort like this. Last year I advised a young fellow who is working by the month for a neighbor to buy a forty adjoining mine, and he did it, and is working as steady as a clock for the money to finish paying for it. The piece is a little rougher than mine, but will make a good little pig and poultry farm, and he is just the kind of a boy that will make a nice home of it and a good living. I have lived and worked in Pittsburg, and know all about the city life of a workingman, and I would not give one year in this quiet place for ten years in any city. I have pure water, good home-grown food, shade in summer, shelter from wintry storms, go to bed and rise when I please, have lots of good reading, and enough work to keep me as busy as I want to be. What more could any man want? Keep on telling the boys to dig in while they are young and get that home."

I know some boys who are after that home, and are going to get it in the near future. In the central part of the country land is high in price, and the boys will have to content themselves with smaller tracts than were considered really essential a few year ago. There are much greater possibilities in ten or twenty acres now than there was then. We are learning how to farm better. How to get larger yields of grain and grass. How to feed stock so as to get better results. We are looking more closely after the smaller things, and there is less waste. Instead of going into the crib and throwing a few scoopfuls of corn to the pigs, a few to the cows, and one to each of the horses we give them just what they require for best results. When a horse is at work we give him a feed that will keep up his strength. When he is idle we cut the ration down and feed only enough to keep him in good condition. We are feeding pigs more sensibly, putting more protein in their food, and getting a stronger and healthier animal, that can stand on his feet when he is fat, and is far less susceptible to epidemic diseases. We are also giving more attention to poultry, drifting farther away from the non-essential points, as the exact markings on the feathers, to the more useful and valuable ones of shape, size, and laying qualities. We are also learning to feed the kinds of food necessary to obtain strong growth, and to encourage laying the year round. We are feeding dairy cows for butter instead of beef, helping them to be profitable animals instead of mere food consumers.

There was a time when the farmer of twenty or forty acres was considered rather a small potato, but that time is gone. It is not so much the quantity a man buys, as his promptness in paying for what he does buy that fixes his rating in his community. The small farmer used to be regarded as a man with a hoe; now he is looked upon as the man with the cash. I know many farmers of ten to forty acres who are among the most enterprising, wide-awake and up-to-date men in their community. One said to me not long ago, "I have thirty acres of good land, and it is all I want. I don't take in so much money a year as my hundred-and-sixty-acre neighbor, and I don't spend as much. The weather worries me very little, because I have less to do and can miss a few days without detriment to any part of my crops. I have time to do my farming in the best manner, and I obtain full yields if anybody does. I work to live rather than live to work, and enjoy life about as well as anybody I know, mainly because I have time to live and enjoy the thousands of things that are enjoyable if we look for them."

What's the matter with that sort of philosophy? There always will be plenty of large farmers, because there are so many men who delight in cutting a wide swath. But after all, I rather think the small farmer will get the most enjoyment as well as the best returns from the soil.

Fred Grundy

An advertiser recently wrote to us: "FARM AND FIRESIDE is all right." By that he meant he had received many replies from his advertisement in FARM AND FIRESIDE. In answering an advertisement, always mention this paper, and you will have prompt attention.

CORRECTION

Owing to the unprecedented rush of subscribers anxious to get their subscriptions in before the great Thanksgiving number, we were unable to make all the changes in our mailing list for this month. It is probable, therefore, that a number of subscribers who were not entitled to the November 15th number not only received that special number but have received this number also. This will not occur again. Our office force is now in excellent working shape and is taking care of the biggest subscription business in the history of farm journalism. If, therefore, you do not show that you want FARM AND FIRESIDE by seeing that you are fully paid up

YOU WILL NOT GET THE NEXT ISSUE

We give you this positive warning, because we do not want you to miss all the Christmas good things we have prepared for you just because you have forgotten to renew in time. If this paragraph is marked with a blue pencil

YOUR SUBSCRIPTION HAS EXPIRED

and should be renewed at once so as to get the Christmas number, the beautiful picture, "Jack's Christmas Prayer," and the other remarkable features described on page 28. Read the special

LAST CHANCE

offers on page 31, and the exceptional chance to get FARM AND FIRESIDE and the leading paper of your section for the lowest possible price as shown on page 27. This is a great year for FARM AND FIRESIDE readers—a better paper than ever before, the new magazine section, which is not found in any other farm paper, the great literary treat offered by Miss Roosevelt's story, and the beautiful pictures, four more of which will be sent

FREE TO SUBSCRIBERS

Look for the prices on pages 27 and 31. They are the lowest we have ever offered you, and if your subscription has expired or is about to expire, we strongly advise you to get in now while these great offers last.

FARM AND FIRESIDE,

SPRINGFIELD, OHIO

Serving or Being Served

"They say Tom's going to quit his job and go to town, pa. That'll be one less boy in the neighborhood."

The Big Boy's eyes were wide open with excitement. Queer what a big hole one boy makes in the community when he packs his grip and goes away into a far country. Queer, too, what a disturbing influence it has on all the rest of the boys that are left behind. For a few days it seems as if they all feel the same impulse drawing them away from the farm and down to the city. But the strangest thing of all, from the standpoint of the boy, is the all-gone feeling that comes over him when a comrade slips out of his heart and is lost outside. There is nothing that I know of that can be compared to that, unless it is the sense of loss that comes over a mother when she sees the child of her heart go away into the world.

"We will be sorry to have Tom go."

"Should say we would. That's about the worst of all. I did like Tom so well!"

Uncle Sam had been listening. Now he shuts up the knife with which he has been whittling and says:

"What kind of a boy is Tom?"

"He's all right, Uncle Sam. Not a wrong thing about him."

Tom has a good champion in the Big Boy.

"I'm glad of that. It is a pretty tough place to put a boy, all alone down there in the city. If his father or mother were going to help him get started it would be better. I've seen so many—"

Uncle Sam is from the city and knows all about boys. He has some of his own. We gather a little more closely about him and talk this thing of the farmer boy going down to the city over.

Tom is a good boy; no doubt about that. His father and mother have done their best by him. He has been well brought up; but now he is getting along to the time of life when he feels that uneasy, restless spirit stirring within him that comes to all lads of his age. If he stayed at home, in a few years he would be at the head of things, for his father is growing old. He will need Tom in the not distant future.

But there is an opening for Tom down town. Someone wants him. There is always someone who wants the good boys. That is the worst of it. The world is all the time reaching out and swallowing up the best we have. And what does it give us back?

"It is just a question of being your own boss or working all your life for someone else," Uncle Sam goes on. "Look at the young man that takes a place in the factory. What does he learn? Just one thing. It may be to shape spokes for wagon wheels. From morning to night that is his business. He knows nothing about other branches of the work. He thinks of nothing more than how many spokes he can turn out in the ten hours, more or less, that he is at work. If he stays there years, the probability is that he could not make a whole wagon to save his life. And he is all the time figuring on the number of spokes he can make in a day.

But the worst of it is, he is not his own master. Somebody tells him what he must do and must not do. His bundle of sticks is laid down by his side in the morning, and he is expected to turn them into spokes. I tell you it is a pretty narrow life; and it is a sample of all the shop work, and I might almost say all the office work and the store work of the city. It lacks the independence of character that belongs to life on the farm."

We all looked up and took a glimpse of the beautiful scene spread out around us. Hill and valley, tree and farmhouse spread out in the most lovely landscape. Our hearts lifted up a song without words, a song that no mortal ear ever will hear and yet a song that keeps the soul bright and cheery.

"You have busy times here on the farm, sometimes, I know that." Uncle Sam used to be a farmer's boy himself, and he knew. "And yet, you do not know what it means to work under a boss. You are your own bosses. I tell you it makes a difference in the life of a man, whether he serves or is served. Serving somebody else takes the manhood out of a man. That is, if he follows it up very long. I know most boys that come to the city think in a few years they will have a business of their own. Some of them do, but they are so few that you never can find them. Most of them are lost to sight. And they are so often lost in the very worst sense."

Uncle Sam became serious.

"I have seen so many nice boys come to town and get into trouble! It does seem a shame! Good boys going down, when all the time they have the making of men in them. They are lonesome down there. Nobody cares for them. They want somebody to talk with. They can't sit around alone after the day's work is over. In a little while they find associates. The character of those chums settles the story of all that comes afterward. If they only knew!"

There was a long pause. The Big Boy wants to know what the rest of that sentence is. Boys never like to have things left half done that way. They must see the thing clear through; and that is what makes life such a serious matter. There are so many things that one might better never see the end of.

"Knew what, Uncle Sam?"

"You will understand me, Laddie. Tom might not, because he has been struck with the blight of the city. I don't believe you have. So I will finish what I had in mind. Young men so often have to find out things for themselves. They are not willing to take the experience of those who have been along the road they want to follow. If they could only see clear through, and could get even the faintest glimpse of all the trouble and the worry and the heartache that gets hold of the man that settles down to be a servant for someone else, and too many times the servant of the devil himself, they would be satisfied to stay where they are, out in the country, where life is the cleanest it is anywhere in the world!"

Then the little session broke up. I could see that Laddie was thinking it over all that day. He did not say much about it. There was the sore place in his heart over losing Tom. There was the sense of loneliness at being left behind. On the other hand there was the old farm, with the friends he loved tugging the other way.

Along in the afternoon I heard a clear, sweet whistle. Laddie's sky was clearing. As we wiped our hands and faces on the big towel before supper, Laddie says:

"The farm is the best place in the world for me!"

In my heart of hearts I say "Amen!"

Edgar L. Vincent.

Farmers' Correspondence Club

Eliminating Farm Fences

A matter of much importance to the farmer in the Central and Eastern States within the last dozen years has been that of fence material with which to replace the old rail fences so rapidly rotting down and becoming worthless. With the advent of woven wire the matter of material and style has been largely determined and carried into practical execution. Probably the generation of farmers who have the solving of the fence problem never before fully realized the magnitude of an undertaking to fence a whole farm; having come into possession of a farm well fenced by some hardy pioneer, it is possible that the amount of labor necessary to the construction of these fences never appealed to the more modern cultivator until he was forced to the tangible consideration of the matter by being compelled to replace the old fence with a new one.

The availability of material, as every farmer knows, has radically changed the methods of procedure. Compared to the old method of transforming superfluous timber and cheap labor into long stretches of stable fence, the present conditions seem difficult to cope with. To-day, high-priced labor must be turned into cash on the farm, then that cash must be expended in the commercial fences. But the transition stage from the old order of things to the new has been the most expensive, and the future will see the farmer buying only the materials and building only those kinds of fences that experience has demonstrated to be practical and durable.

The difference in availability of materials fifty years ago and at the present time is evident to all farmers; the folly of applying the fence building methods of half a century ago to the present time would appeal to any man. In short, the conditions being radically different, the manner of procedure must be altered to a similar extent in order to successfully meet the new conditions. Whether the farmer has clung too tenaciously and thoughtlessly to the usages of his forefathers, and to the tradition of the past, or whether he has been so deeply impressed by the magnitude of the work of replacing his fences as to engage in a consideration of alternatives, it may not be determined. But if the conditions relative to fence building have so changed, it is surprising that more farmers have not realized that farming methods and alternatives have changed in no less degree, and that it may be more practicable to adjust our scheme of farming to the use of less fence than to endeavor to replace every fence and to enclose every little field and lot just as it has always been enclosed. To speak in general it is often much less laborious and less expensive to go around an obstruction than it may prove to remove it by sheer exertion.

The writer has observed the adherence of farmers to three methods in particular; with regard to the fence problem each of these practises has its advantages and its corresponding disadvantages. As personal whims have no cash value, these systems will be considered only from the standpoint of economy and convenience.

Not a few farmers have become so grounded in their methods and so conversant with their system of farming that any change in their scheme of farming, such as the enlarging of their fields or the doing away with fences, would be such a means of inconvenience as to render the financial gain as of no appreciable note. Especially is this true of the farmer whose acres are limited. The breeder of thoroughbred stock usually prefers several small pasture lots to one large pasture. The advantage of having all fields fenced so that stock may be turned in at any time to glean wheat-fields or to "pick" meadows is offset by the damage done by tramping arable land, and by the too close cropping of young grasses. The opposite extreme is that of doing away with all fence that is not absolutely necessary.

This system implies the fencing of a few lots near the farm buildings, and one large permanent pasture. It is surprising how easily a community of farmers will adjust their farming operations and their common dealings to the practise of maintaining neither line-fences nor fences along the public highway. This method is best adapted to grain farming and to the employment of the ordinary stock-raiser. When stock is driven along the highway these farmers expect some little damage, and make no complaint at such; in case it be necessary—which is seldom—the farmer owning the farm stops his work to help drive the stock by his farm. Those who have had experience with this method say that the annoyance from that source is very slight. One successful farmer told the writer that he attributed his success financially to his never having followed the policy of fencing his land; he averred that the building and keeping up of several miles of fence would have been such an added burden as to have made his success doubtful. His figures were a revelation, and strong argument by which to maintain his stand and practise in the matter. This farmer owned a large farm in one of the best counties in Ohio. The other improvements on his land as well as his apparent intelligence and ability showed without doubt that his ideas on the fence question were the result of deliberate policy, and not of neglect, niggardliness, nor the lack of ability. This farmer is not cited as an example to be patterned after, but as an instance of the extent to which farmers have shunned the fence problem and still succeeded in an intelligent way.

The third system, and probably the best, is that of enlarging fields and doing away with all fence that is possible without radically changing the system of farming. The farmer who has had small fields in the past and planted two or three of them in some one crop has now thrown his small fields into large ones; he has arranged to plant one large field to a crop to which he formerly devoted several smaller ones. This farmer finds more room, less fence to be kept up, and no material sacrifice of his former methods of farming. Farms formerly divided into fields of eight and ten acres now have fields varying from twenty to fifty acres. The writer practises this method, and finds several distinct advantages in large fields, aside from the saving in the construction of fence.

None of the above systems are recommended regardless of the conditions; but it is the opinion and actual practise of many successful farmers that the solution of the fence problem lies as much in a judicious limiting of the amount of fence necessary as it does in determining what materials and what style to employ.

Geo. P. Williams.

Commercial Nitro-Culture

I have read much on the subject of nitro-culture. Some writers recommend it as a success, going so far as to state that it has passed the experimental stage, and that it is settled to be a practical way of inoculating the soil. Others take a more conservative view on the subject, and do not accept it as a sure, cheap, practical way of enabling legumes to get their nitrogen from the air. Bulletins from both the New York and the Pennsylvania Experiment Station report commercial nitro-culture which they purchased on the market as being worthless.

In order to make a test for myself, I secured a package of soy-bean bacteria from the Bureau of Plant Industry. I had tried soy-beans several times on my soil, and while they made very good growth they failed to develop tubercles on the roots. I prepared my culture according to printed directions sent me and applied it to my seed. The seed was planted the next day after the inoculation. This was about June 1st. I watched my soy-beans carefully, but no tubercles appeared on the roots. I could see no difference between the inoculated and the uninoculated parts. Of course one test cannot be regarded as conclusive evidence of the worthlessness of the bacteria, but it certainly does indicate that the culture is not a sure method of inoculating the soil for growing legumes. A small investment in nitro-culture may be all right, but it seems to me to be the safe plan not to invest very much money in inoculating material until it proves surer than it has in the past.

West Virginia. A. J. Legg.

Village and Farm Improvement Societies

[continued from page 1]

plan is to have a meeting twice a month, say on the first and third Wednesday evenings, and at one of the meetings have literary readings, recitals and essays bearing on the subject taken from standard authorities, and at the other meeting have debates, relating personal experiences of the members of the society.

When one fails with a flower or plant it may be possible that the experience of another will remedy the trouble, and all can have the advantage of the information. New flowers and plants may be introduced, and this feature will be a good one to keep in mind.

An annual prize might be arranged for those who made the best showing in the estimation of judges, appointed by the society, and photographs could also be taken to illustrate results by giving the "before and after" phase of the work. The work would be generally so close around the judges that they would be able to see actual results and base their opinions on actual facts in the matter.

A small incidental fee could be charged the members to defray actual expenses in the way of lights, stationery and other minor articles which may be necessary, but these are so small that some member will generally provide them each month. Where there is no school building or other public place where the meetings can be held, a good plan will be to go from one home to another, alternately.

A Christmas feast can be given by the club to its members, and often some good speaker can be induced to come and give a lecture on a matter of interest to the folk of the community, and besides, the social feature of the society will be one that will more than repay the effort made in getting it up. There are many farming communities standing in the old ruts, wondering what is the trouble, when only a little push and improvement is needed on the part of the folk. Many a little town stands to-day just like it was twenty years ago, because no progressive society has taken up the matter of improvement, and yet they wonder why everything appears so monotonous. Just because no one does a thing to bring relief to the everyday sameness that greets the eye with every rising sun and is reflected when it sets at eve.

The farm and village improvement society is the thing needed.

J. C. McAuliffe

When a firm whose reputation is not first-class wants to advertise in Farm and Fireside, we refuse to let it. By doing this we protect our people against fraud. You need have no fear in writing to any firm using this paper.

Review of the Farm Press

Cisterns for Liquid Manure

IN the "National Stockman and Farmer," L. W. Lightly tells about some of the disadvantages of liquid manure cisterns as follows:

Do not have such a cistern if you can possibly avoid it, but rather than lose any of the liquids of the stable use the cistern. I always made an extra effort to have plenty of absorbent material to take up the liquid so I could handle it with the solids, and I am sure I was the gainer, even though the absorbent material cost considerable labor. A manure cistern in the stable, of course cannot be tolerated, hence it becomes necessary to drain the liquid some distance to such a cistern, and in practise the keeping of that drain open and in order is something to be dreaded. Getting the material out of the cistern is another job you would like to avoid after some experience.

Some time ago I visited a truck farmer who uses considerable manure in the liquid form and his arrangement is the only one I ever saw that would continue in use on my place. A short drain of four inches in diameter carries the liquid from the stable to the cistern outside and another short drain carries it from the cistern to the distributing tank by gravity, but very few barns are situated so as to make this possible. Usually the liquid is removed from the cistern with a pump, at least an attempt is made to thus get it out, but not always with success, as any practical user will tell you. A neighbor of mine who tried the manure cistern said not a day passed without some of the hands "cussing" the drain, pump or something connected with the method. Said he, "Such a promoter of profanity I could not tolerate on the place, and I filled it up and am now using plenty of absorbents and save time, cash and a lot of mean language."

◈

Live Stock Notes

The breeding sows need rather bulky and laxative food for a few weeks before farrowing. This has a tendency to make the pain less severe and keeps down fever, lessening the temptation to kill or to eat the pigs. Ensilage or roots along with a bran mash, not quite stiff enough for the paddle to stand alone in it, are among the best foods that can be given.

Sheep will eat and seem to like much forage that other animals reject, and the oats from horses or cattle are nearly all eaten up by the sheep. Bean and pea vines and many varieties of weeds, if well cured as hay, are eaten greedily. While this reduces the cost of keeping the sheep, they should not be made to subsist upon such food. They need some good hay and a little grain or a few roots every day during the winter to obtain the best results in lambs or in wool.

Some men argue that the time and labor of raising a lamb by hand amount to more than it ever will be worth, and it may be so, if the man is very busy at other work; but an intelligent boy or girl can often do it as well as a man, with a little instruction, and will be interested in doing so, particularly if they have some of the profits of their painstaking. We have seen such cosset lambs make the best sheep in the flock, and entirely taken care of by the children after the first few days. It gets the children interested in that branch of farming, too.—The American Cultivator.

◈

The Successful Cattle Feeder

In "Wallaces' Farmer," John G. Osborn concludes an article on successful beef productions as follows:

The successful cattle feeder must be willing to shed his coat, equip himself with blouse and overalls, and get right down into the feed lot. He must become acquainted with every bunch of steers on the place, and with each individual in the bunch. He must know if they are thriving, and if not, find out why. They soon learn to recognize his voice and motions. They are shy of strangers.

Successful cattle feeding requires a rare combination of gifts. An abundant supply of capital is necessary, so as to be able to buy stock and feed to the best advantage, sometimes in excess of present requirements, and also to tide over one, two, or three "off years," or unfortunate investments. He needs extensive and accurate information concerning the crops and the supply of and demand for feeding stock and beef cattle, including the export trade. He should have considerable knowledge of political conditions that may influence government policies and thus affect commerce and trade. He must be in love with the business and have a kindly feeling, a fellow sympathy for his animals, and be able to win their confidence. He needs a quick eye and a ready hand, must be a close observer and prompt to act in an emergency. He should be of an even temper and a hopeful disposition.

◈

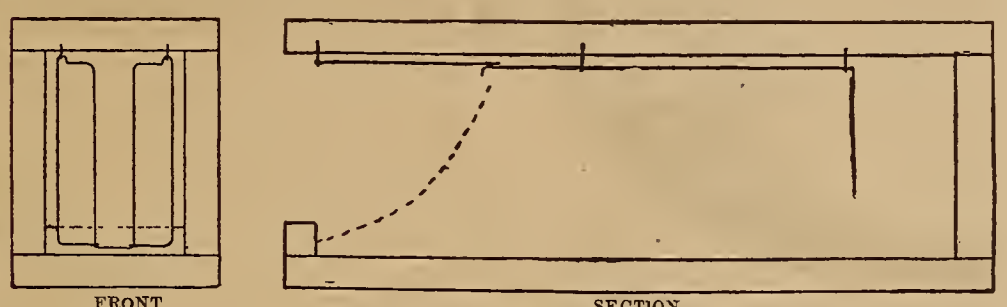
The Wellhouse Rabbit-Trap

The "Kansas Farmer" gives the following description of the Wellhouse rabbit-trap used in protecting the celebrated apple orchards:

MATERIALS USED IN MAKING THE WELLHOUSE RABBIT-TRAP.

Four pieces one by six by twenty-one for sides, top, and bottom, one piece one by six by eight for back; one piece seven eights by seven eights by three and one half for door stop; twenty-eight and one half inches of wire for door; twenty-two inches of wire for the trigger; four and seven eights inch staples made of No. 15 wire; four hundred and eighty feet or twelve pounds of No. 12 galvanized iron wire and one pound of staples are required to make one hundred traps.

The Wellhouse trap is a box made of six inch fencing, old boards preferred. It is twenty-one inches long. The front end is closed only by wire door which is hung from the top and opens inward. A cleat across the bottom prevents the door from opening outward. In setting the trap the door is fastened open by a wire which is attached loosely along the under side of the top board of the trap. This trigger wire is bent downward near the rear end of the trap and formed into a loop or a figure 8, so that as the rabbit crowds into the rear end of the box he is sure to push against this wire and thus move it backwards, releasing the door, which falls and makes him a prisoner.



THE WELLHOUSE RABBIT-TRAP

The cottontail is generally looking for some dark hole in which to hide as a protection from enemies and cold, and this trap easily suits his mind. The great advantage of the Wellhouse trap is that it catches the rabbits. About three of these traps are used to the acre. They are not baited in any way. They may be placed in rows with the open ends in one direction in one row and in the opposite direction in the next row, so that when the boy goes to get the rabbits he can see into one row while going one way and into the next row while returning.

◈

Fall Plowing with Sub-Soiling

The following is a first prize article by C. Ligon in the Southern Ruralist:

My land is a dark loam with a red clay sub-soil. I find that it pays me to break during the fall, sub-soiling at the same time.

I first started with a fifteen-acre field, turning the whole, but sub-soiling only five acres (my sub-soil plow going about eight inches under the surface) and planted the fifteen acres in corn the following spring. There was practically no difference in the yield the first year, but after gathering my corn I turned the field again, sub-soiling the same five acres, going from nine to ten inches deep that time.

The following spring I planted in cotton and gathered only three hundred and five (305) pounds more of seed cotton off of the ten acres than I did off of the five that had been sub-soiled.

I broke the above five acres level, following a one-horse turn plow with a one-horse sub-soil plow, and since then I have continued sub-soiling as much land each fall as I can get clear of its crop, until now I go about fourteen inches deep on most of my land. Having broken the hard pan that lies a few inches under the surface, that is not touched by the ordinary turn plow, my land does not wash away, but drinks in the winter rains and during the following summer when other crops are parching for moisture my fields are supplying their crops with enough.

I, like the average Southern farmer, plant the major portion of my land in cotton and therefore can not plow the same in the fall, as I would like to, since I do not get all of the cotton off before Christmas.

After Christmas, or during January and February, we have so much rain that plowing, usually, is out of the question, so I have adopted the following plan:

I turn and sub-soil my corn and stubble land as early as I get the same clear of their crops. Then I start on my cotton land. In each middle I run a one-horse (cotton stalks are too large for two horses, as they would knock off too many bolls) middle burster, followed by what I call a digger (a very sharp plow about ten inches long by three inches wide.) Sometimes I follow the middle burster with a sub-soil plow, but prefer the digger. I let the furrow made by the above plows remain open until spring, then I ridge on this deep furrow, put my fertilizer in, bed, plant and get almost twice the crops off this land that I do on lands that I do not touch during the fall.

This deep furrow that I make in each cotton middle, catches cotton leaves, burs, etc., and holds the same to the benefit of the land, besides catching and storing the January and February rains for use of the growing crops during the next summer.

Besides this, my land is easier to cultivate, as it freezes deeper during the winter and therefore is made mellow by spring plowing time.

◈

Alfalfa Land for Trees

Alfalfa land is, without doubt, one of the best soils in which to plant a garden or orchard. There is some difficulty in preparing the ground so as to subdue the alfalfa roots. A sharp plow and a steady team with a careful man at the handles are first needed to insure turning under the crowns and making a clean cut of every root. A plant with roots uncut or with the crown only partially turned under will keep on growing and will cause lots of hard hand work to kill them out from the orchard or garden. In short, an alfalfa plant is one of the hardest "weeds" to kill that we have. Fall plowing is the best time for beginning this work. If well turned under the roots will be pretty well subdued by spring. The ground should be left unharrowed until spring, and then use a good slant to the teeth so as to avoid bringing the crowns to the surface.—Nebraska Farmer.

◈

Wide Tires, Good Roads

It does not require the wisdom of a Solon to discover that wide tires on the farm and road wagon are a benefit to farmers in many ways.

Broad tires lighten the draft by presenting more surface to the road-bed, and they do not sink so easily into soft ground for the same reason. Since heavy loads can be hauled more readily with wide-tire wagons than with those having narrow tires, the owner of such a conveyance is thus more merciful to his horses. Tests and observations have proven that wide tires are a benefit to country roads, while the narrow tires are road destroyers. Wide tires act as rollers, compacting the track, while narrow ones only cut up the roadway and make travel upon it very difficult in bad weather.

Wide tires cost but little more than narrow tires hence there is no good excuse for the use of the latter. Farmers are beginning to see the necessity and economy in using broad tires, and are slowly discarding wagons of the narrow tire. This is a commendable move, and we hope soon to see the day when the friendly, serviceable and humane wide tire shall prevail on our roads.—The Indiana Farmer.

◈

Winter Protection for Orchards

In the "New England Homestead," H. D. Lewis speaks of winter protection for orchards as follows:

One of the most important points in preparing bearing apple trees for winter, in my opinion, is to remove all rubbish that may afford shelter for mice or other vermin. Be sure there are no declivities at the immediate base of the tree. A slight mounding is good. At all events, leave no hollows that will hold water to freeze at times of sudden falls in temperature, thereby greatly damaging trees. If mice or rabbits are feared, protect with wire netting. Cut with shears into proper sizes, roll around an old broomstick, or any round object, to give it a circular shape, the stick removed and the wire will spring around the trunk and hold itself in place. See that all drains are in good order.

◈

Clover Versus Timothy

Twenty horses were put on feed at the Illinois Experiment Station. They cost $185 each on the average, at the outset, and sold at $288.37, a profit that looks decidedly attractive, but Professor Obrecht knew how to handle the stock, and that counted for much.

A significant feature of this experiment was the demonstration of the worthlessness of timothy hay. It is an incident horse fleshers will do well to keep in mind. Timothy hay is a good thing to haul to town and sell to the other fellow. And when he buys it he gets trash.

Clover hay has it beat all around the circuit. In this experiment, horses fed on corn, oats, and clover hay gained 277 pounds each in 92 days. At 20 cents, this would mean $55.40, and at the beginning of the experiment, a responsible horse dealer offered the experiment station authorities that price for all the gain made. In the case of the lot fed on the same ration, but with timothy substituted for clover, the gain was but 142 pounds, and the timothy ration cost more than clover.

From this it is plain that timothy is an unprofitable raw material for farm feeding operations.—Hoard's Dairyman.

◈

Cows Pay for Kindness

It certainly pays to be kind to the cows. If they love the man who cares for them and are made happy by kindness, warm cheerful quarters and abundant wholesome feed, they are bound to do their best and to yield lots of good milk. An observing man can tell whether a dairyman is successful or not just as soon as he has a chance to see him among his cows. If they are afraid of him and quickly move out of his way, they cannot do well, for they are constantly in fear, they are nervous, easily excited and fret for fear of a blow or harsh word. This cuts down the yield and quality.

If they love the master you will see them approach him to be petted. When you see that condition it is a sure sign that a partnership exists which is bringing profit to the owner.

It is many years ago that a herd of cows averaging 125 pounds of butter a year per cow was considered a good one. But dairy cow development, brought about by selection and breeding, has raised the standard and any enterprising farmer can now own a herd capable of producing 300 or more pounds of butter per cow.

Improvements in the methods of breeding and feeding dairy cows have been and are being made such as were never dreamed of by the dairyman of thirty years ago. Let us hope that this improvement will continue until poorly conducted dairies are the exception and not the rule.—Wisconsin Agriculturist.

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ARE EIGHT

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Gardening

Storing Vegetables

All stored vegetables should be kept in the dark so as to prevent active growth. Mangels, carrots and other roots are liable to wilt and become nearly worthless, especially for table use, if left uncovered. A barrel sunk into the ground in naturally drained soil is a good place to store a few heads of cabbage, some beets, carrots, etc. First bore a hole into the bottom to let any water that might get in escape. Put some straw on top of the vegetables, and a tight cover over it. For cellar storage, cabbages may be wrapped singly in paper, or put into flour sacks, and hung up. Bury winter radishes in sand. We have usually tried to cover our bins and heaps of beets and other roots with sods or old sacks in order to keep them fresh and from the light.

◈

Root Maggots

A Maryland reader tells me her troubles with root maggots. They spoiled her radishes, attacked her cabbages, and even her onions.

Many other people have the same trouble, too. By applying tarred-felt collars I have usually saved my cabbages and cauliflowers. Only scattered specimens of onions have ever been found infested with root maggots in my patches. But as to radishes, it is a tough proposition that confronts us. I know of no practical method of keeping the maggots off our radishes. Soaking the ground next to the roots with kerosene emulsion has been recommended, but it is doubtful whether the results pay us for the trouble and expense of application. My way is to keep a lot of radish seed on hand all summer long, and sow a little patch or a few rows every few days. One sowing may be spoiled or greatly injured by maggots, but the next may escape, and so we manage to have good and clean radishes right along during almost the entire season.

◈

Eggplants

A North Dakota lady asks about eggplants, how to grow them, when and how to use them, etc.

I believe that if she has never used them, she has missed much. We had them on our table, and greatly enjoyed them, at least twice a week right along from some time in July until November. We begin to use them when of about goose-egg size. They are good for use, however, any time before the seeds begin to fill. The egg is simply peeled and cut in slices, crosswise, about one eighth of an inch in thickness. The slices may be immediately fried in butter or first dipped into a slightly salted egg batter and then fried. The only difficulty which the culture of eggplant presents to the novice is that of growing good plants. It takes a warm hotbed or greenhouse to start the plants from seed early enough to make good strong plants ready to set early in June. But if you do not succeed in getting the plants started, you can always buy good ones at the proper time. Set them in the very warmest and richest ground you have, and you will get the eggs.

◈

Carnation Rust

S. B. G., an Ohio reader, sends some carnation stalks affected with what appears to be rust. This is one of several very troublesome fungous diseases that attack carnations. The remedy lies in prevention rather than in cure. Destroy the affected plants, and try to keep the balance free from the disease by spraying them with Bordeaux mixture. That is about all that can be done so far as I know.

◈

Wren and Cabbage Worms

"American Cultivator" gives the following account of the wren: "When the wren is nesting in the spring, it will protect one quarter of an acre of cauliflower or cabbage plants from any injury whatever by cabbage or cauliflower worm, which is the product of this very beautiful yellow butterfly which we see along the roads in the summer, in mud holes and puddles. This butterfly is the parent of the cabbage worm. The wren, when she is raising her family, will fly back and forth over a quarter of an acre of these plants and pick all the worms off with which to feed her young. But we have not the wrens, and the result is that much cauliflower is sacrificed on Long Island and in New Jersey."

There are a number of birds which will occasionally, but seldom habitually, feed on the worms which are the product of both the yellow and the white cabbage butterfly. Several seasons I have had my cabbages kept entirely free from the worm by a few English sparrows. Usually, however, we have to rely on our own efforts to save our cabbages and cauliflowers from injury by worms, and as this task is not by any means a difficult one, the grower should not allow these crops to be sacrificed, whether on Long Island, in New Jersey, or elsewhere. Self-help is always the best help.

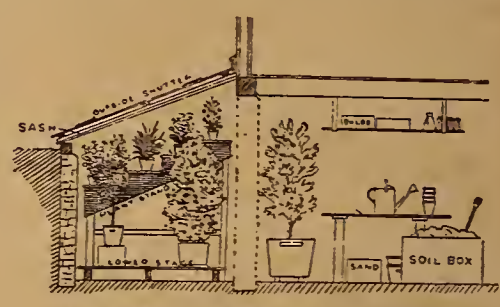
The use of kerosene emulsion, whale-oil soap, tobacco dust or tea, Persian or California insect powder, or a number of other remedies applied as occasion may require, will carry our cabbages and cauliflowers safely through the dangers from worm attacks.

◈

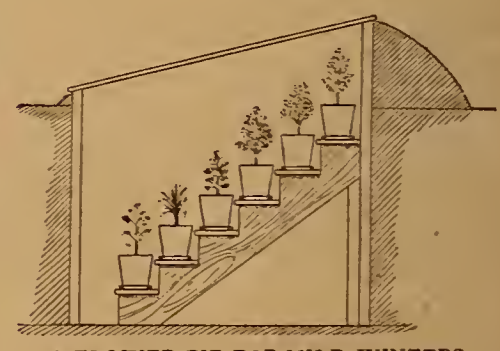
A Flower Pit

A lady reader in Michigan says she is anxious to have a flower pit for keeping flowers through the winter, but does not know how to make it. While living in Virginia, they had such pits, but she has forgotten how they were constructed.

Under the more favorable climatic conditions of parts of Virginia, and from there southward, a pit constructed in the fashion of a hotbed, only somewhat deeper, and provided with a flower stand, then covered well with sashes—best double glazed—and further protected by means of mats, litter, etc., during the coldest parts of the winter, will answer quite as well for wintering many plants, such as wallflowers, geraniums, fuchsias, lilies, and a whole list of others. This plan would probably be a little risky for our more northern and colder sections. Here I would prefer a plant annex to the cellar, such as we gave twenty years ago in the now defunct "Popular Gardening." It was described by a lady in Delaware as a mere extension of the cellar five feet beyond the line of the house wall, and covered with hotbed sash, besides shutters for bad weather. The pit the other way was about ten feet long, but may be made shorter or longer to suit the requirements. For ten feet or shorter, the cellar may be without a wall, a post rising midway in the opening supporting the sill above. During the summer the opening between the pit and cellar may be boarded up to keep the outside heat from entering the cellar through the pit. The glass sash may then also be kept covered by painted shutters. It seems to me that this is one of the simplest and best devices for the amateur to keep not only a lot of flowers over winter, but also to raise some little bits of green for the kitchen, a few pots of parsley, cresses and even some lettuce.



A GLASS-COVERED PLANT ANNEX TO THE CELLAR



A FLOWER PIT FOR MILD WINTERS

T. Greiner

Fruit Growing

The Strawberry-Raspberry

J. J. D., Mt. Carmel, Connecticut—The plant sent out under the name of strawberry-raspberry is not a hybrid plant at all, and the name is a misnomer. This plant comes to us from Japan. It is an herbaceous plant, and while it produces very brilliantly colored large fruit, this is regarded as of little value for commercial purposes. I have occasionally seen parties who used it for canning purposes and speak well of it, but in my personal experience it has been of no account commercially. So far as propagating itself is concerned, I have been most troubled about preventing its propagating itself and spreading all over the garden. It produces a large number of suckers each year, which grow to the height of two or three feet the first season.

It would seem as though there ought to be a good field for this class of raspberries—which die to the ground in winter—and at one time I was very enthusiastic over some of them. About seven years ago I received from the United States Government a plant of similar character to the strawberry-raspberry under the name of Rubus xanthocarpus, and was told that the thing to do was to propagate it as fast as possihle, as it was valuable. I gave it the best of cultivation, and it produced an enormous number of suckers, growing to the height of perhaps eighteen inches. I grew it for six years, and in all that time failed to get a single fruit. An acquaintance of mine to whom I sent it had a similar experience and dug it out, but some of it had spread to the headlands of his nursery, where the horses were turned on it. On this land he one year had a good crop of large yellow fruit fairly good in quality. The way the plant propagates in the soil reminds me very much of the Canada thistle, and it is got rid of with considerable difficulty. It is possible that we shall get something from Asia yet in this line of value commercially, but thus far nothing has appeared.

◈

Transplanting Pecan Trees

R. D., Houston, Texas—Pecan trees are difficult to transplant, for, like all the hickories, they naturally form a long straight tap root, and when this is cut—as it ordinarily is in transplanting—very little root remains to support the tree. But if pecan trees have the tap root cut a year or two before they are to be moved, cutting it about eighteen inches from the surface of the ground, or in the case of small seedlings about twelve inches from the surface of the ground, they will form side shoots and may then be transplanted quite successfully. If you must transplant these trees next spring, and cannot wait a year or two before moving them, I would suggest that you dig down so as to get all the roots within three feet of the surface. This means that when you transplant them you would have to dig something like a post-hole to put them in. In addition to this the tops should be pruned, and it is a good plan to wrap the trunk with cloth or paper to prevent evaporation. Treated in this way trees of this class can generally be transplanted successfully.

In this connection it might be interesting for me to say that about ten years ago I had some bur oaks which form a root much like the pecans. These trees were five or six years old and perhaps five feet high. In transplanting them we got about two feet of roots, nearly as straight and about the shape of walking sticks. These were set out in clay soil, which was packed firmly around them, and every one of them grew.

◈

Fruit Test for Colorado Ants in Fields

A. S., Cheyenne Wells, Colorado—For a list of the best fruits for planting in your location, I would suggest that you write to Prof. Wendell Paddock, Professor of Horticulture, Experiment Station, Fort Collins, Colorado. I know that he would be pleased to recommend you a list, and he is much more familiar with the situation where you live than I am, so can therefore give you a list which will be more profitable to you than one that I might send.

In order to destroy ants that form hills and work in your fields, it is probably best for you to use bisulphide of carbon. This is a compound much like gasoline in general appearance and explosiveness, and must be handled with all the precautions that are necessary to handle gasoline safely. In using it dip a piece of cotton about the size of a walnut in the bisulphid of carbon and place it on top of the hill, or, if there are a series of hills, put the pieces about a foot apart each way and cover the whole with inverted sod or newspaper, or something that will prevent the gas from escaping. If the fumes from this material are held in tight in this way the gas from it will destroy the ants, as it is deadly to animal life. One application is generally sufficient.

◈

Grape-vines Not Fruitful

A. S., Troopsburg, New York—It is quite common for Brighton grape-vines not to be fruitful, although they may make a vigorous vine when growing away from other varieties. This is because the flowers cannot be fertilized by their own pollen. As you do not know the name of the vine which you set near the Brighton, to overcome this trouble, and which produces little or no fruit, I am inclined to think that it is like the Brighton, and may also be one of the self-sterile varieties. I think, however, if you will get a vine of Concord, Worden or Moore's Early and set it near them that both of them will probably produce fruit. It is possible, however, that the lack of fruit on the newly set vine may be the result of some disease or insect that destroy the flowers.

◈

Value of Street Trees

A. J., McIntosh, Minnesota—It is quite a difficult matter to determine the value of shade trees. There have been, however, many court decisions rendered on this subject. The amount of damages of course would depend largely upon the size of the trees, their kind and place, and also greatly upon the appreciation of the jury of such matters.

It is customary in Massachusetts, where elcctric lines have to take trees along their right-of-way, for them to pay $10 to $15 each for large trees that they remove. But where the trees are especially valuable they have paid from $200 to $300 for a single tree. In the case of small trees I presume it would be fair to count the value of the tree and the labor of planting, to which should be added $1 or $2 for each year's growth.

A recent award of damages for this kind of injury was had at Kansas City, Missouri, where Mrs. Ella S. Betz was given a judgment of $200 against the Kansas City Telephone Co., whose employes had cut the top out of one of her shade trees. In this case the tree was a fine poplar about six inches in diameter. It had interfered with the stringing of the telephone wires and was cut without permission.

◈

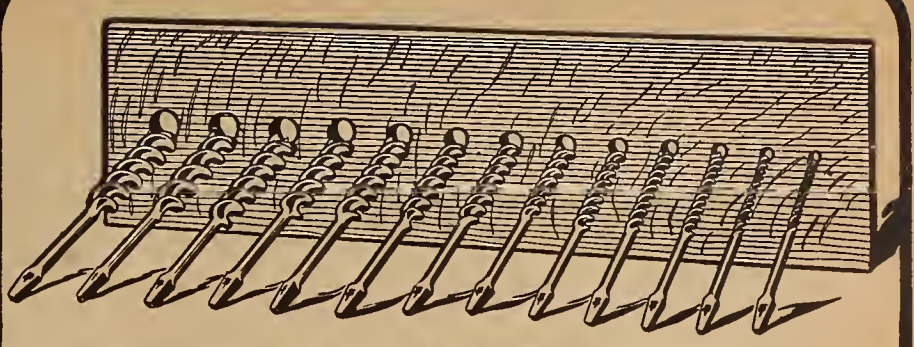
Galls on Grape Leaf

E. G. E., Amherst, Massachusetts—The grape-vine leaf which you sent on is affected by what is known as the grape-vine gall. This little gall is formed by an insect, known as phylloxera, and is commonly called the root louse of the grape. The insect lives on the roots of our native grapes, and it is not uncommon to see a vine that is infested quite as much as the leaf of the Beta which you sent on. On the roots they form little warty galls, and they are probably always present on our native grapes. It is this insect that is preventing the growing of the European grape in this country, for that grape is killed by its presence, while out native grapes are immune to it in the root form, although it injures them when growing on the leaves.

The most satisfactory treatment is to remove and burn the diseased leaves. I do not think it will be especially troublesome for more than a year or so, and will then disappear. There is no danger of your transmitting the disease from other plants by cuttings grown from the wood of these vines.

We have quite a number of Pyrus bacatta and could spare you a few if you wish. Thcse are small, and will hardly be big enough to graft until a year from next spring, and should be grafted in the ground, as they do not grow well when root grafted indoors.

Samuel B Green



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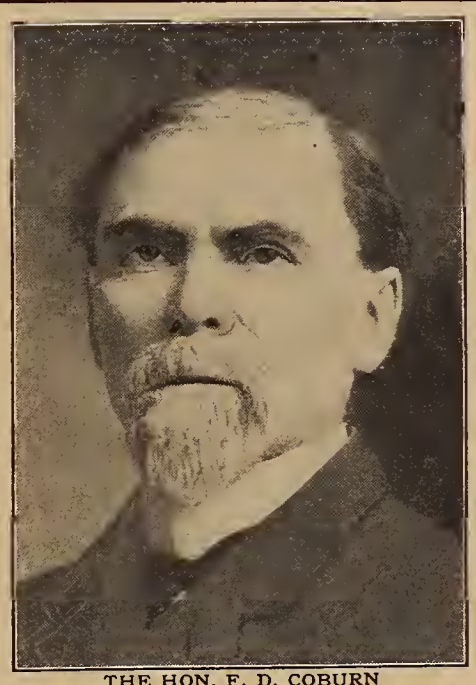

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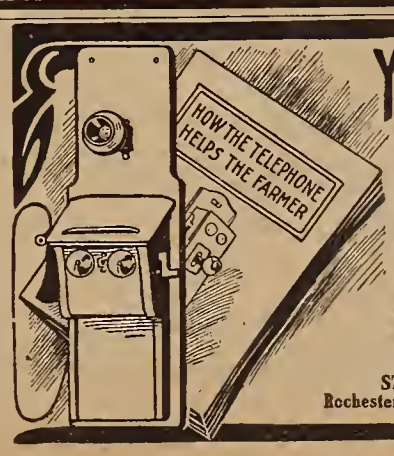

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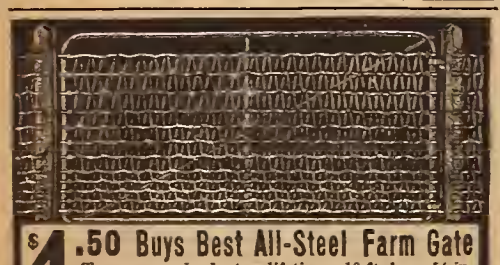

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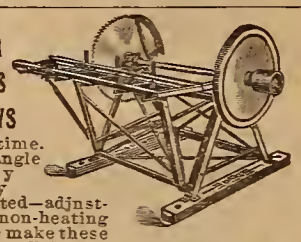

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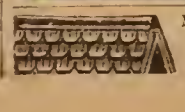

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Butchering

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First, you need the proper tools; that is, sticking knife, hog hook, scraper, a barrel for scalding, and a kettle for heating the water. You also need a convenient place for working, a gentle slope of ground, so that a platform may be arranged in such a way that the hogs can be placed on it from the upper side without much lifting.

Place the barrel at one side of the platform near the middle. This gives a good chance to handle two hogs at a time. Handle them as quickly as possible. Two men can easily throw a large hog by reaching under it one at the fore legs and one at the hind legs. After it is thrown one man can hold it on its back. In sticking do not point the knife straight down; the object is not to pierce the backbone, but to cut the arteries which lie just inside the breastbone. To do this give the knife a turn sideways. The knife should be sharpened on both sides of the point.

The water should be heated to about 200° F. It is easy to cool it down a little if it does not get cool enough in moving it from the kettle to the barrel. Wait till you are sure the hog is dead or you may be looking for another barrel. A little pine tar is a fine thing to put in the water.

If the water is thought to be too warm, scald the hind end first, if too cool, the head first.

To hang the hog use a rail; cut a notch in it about eight feet from the end and lean it against a building at an angle of forty-five degrees. By placing the hog on a box under the rail, with one hind leg on each side of it, and inserting the gambrel stick, the hog may be raised until the stick will come into the notch.

New York. JOHN UPTON.

Rearing of Calves

The following is an experience of four and one half years experimenting to determine how calves could, most cheaply, be well reared and losses prevented. Of eighty-six calves which were born alive only one died, and that one suffered from internal hemorrhage from its birth. It is most important and desirable to keep the different calves separate from each other until they are two months old, as many losses occur among young calves through being together and sucking each other.

In our experiments a calf was taken to a pen away from the cow-house as soon as it was born, got a good rub-down with straw, and was well bedded and covered with the same material. In the course of half an hour or so the calf was fed with about a pint of its mother's first milk at blood heat. No medicine was given, the first milk containing all that was necessary, both for feeding and as an aperient. Afterward the following rules of feeding were observed: First week; its own mother's milk, warm three times a day, commencing with about a pint and a half at a time, and increasing to two quarts on the fourth day. Second week; two quarts of warm new milk, not necessarily its own mother's, three times a day. Third week; two quarts of warm milk, half new and half skim or separated, three times a day, with a half pint of linseed soup to each quart of skim-milk. Fourth week; same as the third, with a handful of sweet hay to nibble at. Fifth week; two and a half quarts of warm skim-milk, three times a day, a half pint of linseed soup to each quart, and a little sweet hay after morning and evening meals; to be continued with gradually increasing quantities of hay till the end of the eighth week. Ninth week; omit the linseed soup, and after the midday milk give a single handful of broken linseed cake and a little pulped turnip (grass instead of turnips in summer); hay as before. Twelfth week; omit midday milk, and give three fourths of a pound of mixed linseed cake and crushed oats, and half a gallon of pulped turnip (grass in summer) at midday, continuing morning and evening skim-milk, and hay as before. If necessary, milk may be entirely discontinued at five months old, and one pound per day of mixed linseed cake and crushed oats be given to each calf, with increasing quantities of hay and roots, sliced or whole; but if skim-milk be plentiful, it cannot be put to better use than giving the calves one or two drinks of it each day up to the age of eight or nine months.

To prepare linseed soup, put two pints of linseed to soak over night in four gallons of water; the next day boil and stir for half an hour, and five minutes before the boiling is finished add one half pound of flour, previously mixed with enough water to prevent it being lumpy, to this quantity of soup to counteract the laxative tendency of the linseed. Side by side with linseed soup, we tried cod-liver oil as a substitute for the removed cream, and it answered admirably—quite as well as the boiled linseed.

When the cow's first milk is not available for new-born calves, ordinary new milk may be made to closely resemble it by adding the white of an egg and a teaspoonful of castor-oil, previously beaten in a little warm water to about two quarts of milk. Young calves require dry, comfortable and sweet beds, and where such conditions are absent, scour is often the result. There is nothing so good for bedding as moss litter. I came to the conclusion that it was best to keep spring-born calves in for the first year, except, perhaps, for a few hours a day on a pasture during the summer. Fall-born calves may be turned out all summer.

W. R. GILBERT.

The Sheep

It is said that sheep can make their way where other stock would starve. This is no doubt true, for they will live on weeds, sprouts, and buck brush, and graze pastures where it is impossible for other stock to bite the grass. The farmer may use his flock of sheep to clean out his briar and brush patch, but he must not keep them there too long without feeding them; nor must he leave them on dry pasture without giving them grain. Sheep, as well as other stock, should never enter the winter run down in flesh. It is needful that they be in good health and flesh when the winter begins, for a poor or diseased sheep never does well in cold weather. When spring comes he will look shabby—if he has not been taken to the bone yard. It takes a poor sheep a good while to get a start in the spring, and there is danger of the ewes that are to lamb being too weak. Their offspring are also liable to be small, and flow of milk barely enough to keep them alive.

The flock of sheep should have the best of care. Otherwise, it will not be profitable. In the fall, when the pastures get short, the sheep should be fed grain. It is best to feed them in troughs constructed for that purpose. Good troughs can be made out of oak boards. Use six-inch boards for the bottoms and four-inch boards for the sides and ends. To make the troughs stationary, drive two stakes into the ground six inches apart at each end of the trough, then nail a cross-piece from one stake to another the desired height above the ground; six inches or a foot is about right. Set the trough between the stakes, letting each end rest upon a cross-piece. The trough should then be nailed to keep it from being turned over.

Oats are about the best feed for sheep during the fall and winter. They relish them because they are easily masticated. They are a flesh-builder. Shelled corn mixed with bran is very good, but does not equal oats and corn together. Clover hay is most excellent for the flock. If the sheep can be allowed to run to a rick of clover hay, they will need very little grain. Some farmers feed them fodder, and others like sorghum. I knew a farmer who ricked his sorghum, that had been cut and cured just before it tasseled, near his barn. The flock of sheep were allowed to run to it. When spring came they were strong and healthy.

Sheep do not drink as much water in winter as ordinary stock, but it is well to have plenty on hand, so they will not suffer from thirst. The profitableness of the herd is governed largely by the care farmers give them when they cannot take care of themselves.

W. D. NEALE.

The New York City dealers in meat products have recently expressed to Secretary Wilson their high appreciation of the work of the Agricultural Department in providing the necessary regulations for the prompt enforcement of the meat-inspection law. They have also assured the secretary of their hearty coöperation in carrying out the provisions of the law. *

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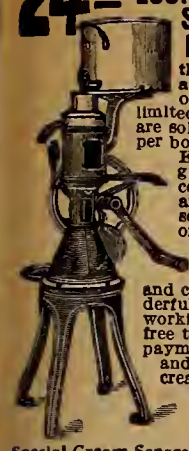

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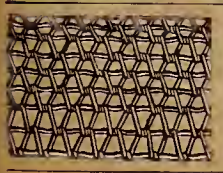

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Live Stock and Dairy

The Breeding Sows

During the summer all of our hogs receive the same kind of feed. But as soon as we commence to feed new corn, those intended for breeding purposes are separated from the market hogs.

In selecting our breeding stock preference is given to sows from large litters, for prolificacy is very desirable. Of course, other points are taken into consideration, and we desire to have the sows conform as near as possible to the standard of the breed. While some short, chubby sows are prolific it is better to select those that have a deep, capacious body. Care must also be taken to see that the sows intended for breeding purposes are properly developed in every particular.

After separating the breeding sows from the market stock, we feed them muscle and bone building food. This consists, in our case, of skim-milk mixed with ground peas and oats or rye; sometimes middlings are fed, but seldom bran. As all kinds of stock do better in winter, when given succulent food, we feed the sows from time to time, raw potatoes, and rutabagas, if we have them. Pumpkins are also excellent, especially the seeds, which are a general tonic for hogs, and act favorably on the kidneys. Pumpkin seeds are a vermifuge; I mention this because it may not be well known among hog raisers.

After having bred the sows see to it that all doors or other openings to the pens or houses are amply wide enough for them to pass.

Wisconsin. FRED STROHSCHEIM.

Care of Horses

Most men do not think that the horse is the most valuable of all the farm machinery. And while they will put their farm implements under cover, and carefully use them, the horse has to take what is given him, and too many times it is a "lick and a promise." The horse is a very intelligent animal, and responds readily to kind treatment, yet I believe that he receives more blows and kicks and jerks and curses than any other animal. Often a man desires to have a fine looking lot of hogs, no matter if he owns five or fifty; he also likes plump cattle for sale; he is proud if he has a nice yield of grain, but if anything is neglected, it is the poor horse. The horse often looks as if he would say "please give me a little better care," but like the soldiers of the "Light Brigade" his but "to do or die."

Often, as soon as a tinge of green can be seen peeping through the brown grass in spring, the horse is turned out at night, after a hard day's work, and caught in the morning and taken to the field to work again. If that treatment should develop colic, then perhaps he is dosed with some villainous compound that would kill an alligator, and if that does not bring relief, a horse doctor is sent for, and he is drenched again. If he objects, his head is pulled up high, his mouth pried open, and he is forced to swallow the dose. Then he is blanketed and led up and down, and handled carefully, quite likely allowed to rest a day or two. Now, this does not pay at all. In two or three years that horse is injured very much, while a little care would have prevented the trouble.

In the spring, the farmer should not try to do a heavy day's work at the start. He should use his horses very carefully at first until they become accustomed to the work. If the weather is a little too warm, it pays to clip the horses. I have seen some of my neighbor's teams come in at night with the heavy coat of hair they are carrying, as wet as if they had been out in a heavy rain, and perspiration dropping from them, while my own horses did not have a wet hair on them. If the weather turns cool, put a blanket on them in the stable. The cost of the blanket will be saved in horse-flesh and sore shoulders.

It is a good thing to wash off the shoulders of every horse if he has them wet with perspiration. I know a farmer in my own county who has a large farm and raises many fine horses, who will turn a horse out in the pasture, if it gets sore shoulders, and catch a colt three or four years old, put him in with three other horses on a fourteen-inch gang plow, and go right on plowing, with the colt plunging and trying to get away, never having been hitched up before. Perhaps in a day or two that colt will have sore shoulders or a sweeny. Now, that man is a kind neighbor, and has a nice home and family.

Another thing, do not feed horses musty hay or grain. We do not like the canned goods put up by the "Trust" packers, and our horses do not like musty food.

After the corn is planted, and the heavy work of the farm done, then if the horses can go out at night on good pasture I think it is good for them.

Illinois. U. S. ELLSWORTH.

The Long-Nose Swamp Sow

Breeds of hogs have much improved in Virginia, as they have elsewhere of late years. The long-nose swamp sow is seldom seen at this day, and every person is trying to improve on his stock and excel others in the quality of his product of the hog.

POLAND CHINA SOW AND HER EIGHT THREE-WEEKS-OLD PIGS

Several eight hundred pounders have been raised around here, and by some, they were thought to be great shows. One of my neighbors built an expensive carriage with low wheels, and took his prize to the city, as much for exhibition as anything else. On his visit to the stockyards in the city, he says, he was shown a half dozen one thousand pounders turned loose in a bunch, which put him out of commission, and he at once returned home with his prize and quit the business.

There is a type of hog known as the woods hog, and they are more often seen in the cornfield than in the woods. They can hear an acorn or chestnut fall from the tree at five hundred yards and beat a race horse getting to the spot.

The hogs of the past were little cared for, they were usually turned out around the shore and in the swamps to "root hog or die." Their noses grew so long they were said to be able to root soft clams in three feet of water without getting the eyebrows wet, and eat corn from the fourth corn row by poking the nose through a knot-hole in the fence.

Virginia. B. C. FOSTER.

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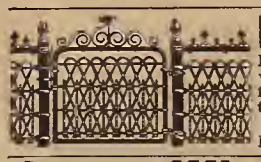

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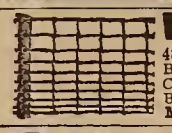

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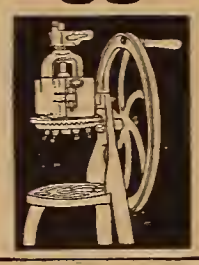

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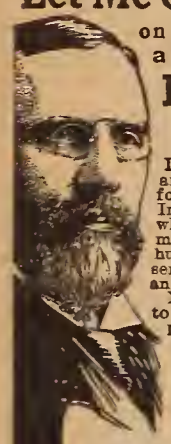

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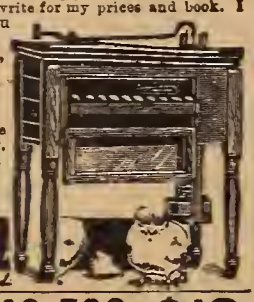

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A hen—any hen—will lay a great number of eggs (some more than others) if conditions and surroundings are such as meet the requirements of hen nature. Here is where *your* part comes in. Give the hen a regular daily portion (a penny's worth is enough for 30 hens) of Dr. Hess Poultry Pan-a-ce-a, and she will do the rest.

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is *not a food*—it is a tonic, specially prepared to give "tone" to the digestive and reproductive organs, so that the maximum of food, over and above the maintenance ration, is used to make eggs. It has also a property foreign to a so-called poultry food. It is a germicide, that is, it destroys bacteria, the cause of nearly all poultry ailments. Poultry Pan-a-ce-a is the prescription of Dr. Hess (M.D., D.V.S.). is endorsed by the leading poultry associations in United States and Canada, and is **sold on a written guarantee.**

1¼ lbs. 25c., mail or express, 40c.
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12 lbs., $1.25.
25 lb. pail, $2.50.

Except in Canada and extreme West and South.

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Instant Louse Killer Kills Lice.

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It has the highest record in hatching and the lowest prices in selling. Ten years on the market. Used and recommended by *more* poultry raisers than any other—bar none.

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Poultry Raising

Frosted Combs and Wattles

ONE of the dangers that confronts the poultryman during winter is freezing of the combs and wattles of fowls. This is known as "frosted comb," and it causes extreme suffering to any bird that may be afflicted. Fowls with large combs and wattles are the chief victims, as such portions of the head offer large surfaces for exposure to cold winds. Fowls with pea combs, or small rose combs, are more exempt than those with large single combs.

The principal cause is due to getting the combs and wattles wet, especially when drinking, and then being suddenly exposed to cold winds at a temperature below the freezing point. To prevent the difficulty, as far as possible, the birds must not be allowed to drink in such a manner as to get their wattles wet. The aperture for drinking should be large enough to admit the bill only. Should the wattles become frozen, the birds will be rendered useless until the injured members become healed. If the hens refuse to lay after cold weather sets in, first look for frosted combs and wattles, a difficulty often present, but not noticed. As a remedy, anoint the comb and wattles once a day with vaseline, keeping the birds in a warm location, with straw on the floor instead of a roost at night.

Conditions and surroundings largely affect the combs of fowls. Warm quarters in winter, to protect the fowl against the cold, and a variety of food that it may lay eggs in winter, will assist in protecting against disease. There are no conditions that fit all breeds of poultry, for no two breeds can exist under the same treatment and both prove profitable, as one breed may fail under conditions favorable to the other. If the combs and wattles do not become injured from cold it is possible for a flock to produce eggs during every winter month.

Chicks with Hens

There are two classes of poultrymen who allow their hens to incubate during the cold months, the one desiring to hatch chicks to catch the early spring market, and the other to hatch pullets for next year as early as it can be done. The main difficulty is that the hen takes her time for becoming broody, and cannot be forced to go on the nest until she is inclined to do so. Of course, incubators are preferable, as they can be "set" at any time, but nevertheless there are farmers whose hens sometimes become broody in winter, and they allow them to bring off broods. It is less expensive when several hens become broody at the same time, as quarters must be prepared for the hens with broods in winter.

Corn-meal is usually the principal food given chicks on farms, and thousands of them have lived and reached a marketable age on a corn-meal diet, but little chicks are not closely confined in early spring, even when the hen is not given liberty, and they occasionally find seeds, grass, and sometimes worms, thereby procuring a variety. Should the food in winter consist solely of corn-meal there may be a heavy mortality. The corn-meal is right and proper enough, but should be reënforced by other substances—such as sifted ground oats, finely chopped meat, bone-meal, potatoes and stale bread. It is very difficult to raise chicks with hens in winter, because of the fact that as they soon grow the hen cannot easily cover all of them, for which reason they must be kept in warm quarters. The early broilers pay well, but one must be prepared to avoid loss of young chicks by making suitable preparations for winter management.

Warm Quarters for Eggs

It is not so important to have poultry-houses close as to protect against draughts of air in winter. Some poultry-houses are covered with tarred paper, and after it has been on for a while, especially through a winter, it may break in places, producing holes. When it is properly put on there is a way to preserve it so it will last for years. It should be fastened down well (the heavy paper being generally used), then give it a good coating of the paint made especially for that purpose, and which usually comes with the paper. At the end of the first year it may require another coat, then another in a year or two more, and so on. Give the roof a little attention the first six months and the work will not be difficult. There are some excellent roofing papers now on the market which are cheaper and better than ordinary tarred paper. For the walls it is better to place the paper, or other roofing material on the outside, rather than on the inside of the house.

A warm poultry-house is the cheapest appliance connecting with egg-production in winter, for the reason that warmth is essential to comfort and thrift. When the quarters are warm in the winter, and the fowls are as comfortable as they are in summer, the hens will not be so quickly affected by the changes in the weather, but there is no flock, no matter how well managed that does not fall off in eggs to a certain extent when the weather is severely cold.

Swollen Heads and Eyes

Several readers have written the FARM AND FIRESIDE asking a remedy for swollen heads and eyes. It is a difficulty that begins to appear in the fall, especially during damp weather, being a symptom of disease rather than a disease itself. Fowls that are exposed to cold winds seem to be the first to suffer. The difficulty usually starts in one eye only—the one next to a draught of air—then the bird turns around to avoid pain, and the other eye also becomes inflamed. The bird whose comb turns black may also be affected. It sometimes comes from an overhead draught, or it may be from a ventilator, from a crack, a knot-hole, or some unknown source of draught. Roup will finally result unless the draught is prevented, hence the best remedy in such cases is to discover the cause or source of draught and remove it. Anoint the face and eyes with camphorated oil, and inject two drops once a day in each nostril, and five drops down the throat. Scatter air-slaked lime freely over the floor and yards twice a week, and cover the floor with leaves or cut straw, removing the roosts so as to compel the birds to sleep in the leaves, as it may be possible that the source of draught will be found above the roosts. In severe cases, which indicate the presence of roup, it may be advantageous to destroy all affected birds, owing to the labor necessary to "doctor" them.

Ducks in Winter

If the hen is the victim of frozen comb, the duck seems to have its troubles in its feet. While the duck is at home on the water, even in cold weather, if the pond is not covered with ice, yet it cannot endure cold feet without liability of injury. Damp locations at night also affect the legs of ducks. When ducks are laying they can consume large quantities of food, but as soon as they cease laying they can thrive on a small supply, and should be turned out on grass and compelled to forage for insects, seeds, and bulky foods. Ducks should begin to lay in January, and finish by the time green food becomes plentiful. Instead of reducing the food after the ducks have ceased to lay regularly, some persons do not make a distinction in the matter, and feed the ducks liberally, the result being that they become too fat, their legs will not support them, and they at once become subject to heart disease, rheumatism, indigestion, etc.

Two light meals a day are sufficient, and if the ducks are fat they should be allowed only one meal a day for a week or two. They may be given cooked turnips or potatoes, or clover hay, cut fine, may be allowed, sprinkling the mess with bran or midlings. They also consume oyster-shell meal, and a little meat may be given three times a week.

The quarters must be dry and the floor covered with cut straw or leaves. In feeding there is no rule that can be followed. Do not feed too much grain if ducks are in good condition, but allow animal meal (ground meat) and cooked turnips, adding bran to regulate the mess. Animal meal from now until they begin to cease laying is the most important food they require. Feed as much of the mixture once a day as they will consume, but feed three times a day as soon as they begin to lay.

P. H. Jacobs.

Austria-Hungary

By Frederic J. Haskin

THE dual monarchy of Austria-Hungary is one of the most troubled and sorely tried governments in the world. The cause is not generally understood. The American sees in his paper one day that there has been a quarrel over the refusal to allow the use of Magyar words of command in the Hungarian army instead of German. Again he reads that the Hungarian members have bolted the Congress without waiting for the royal message.

Coupled with these disquieting but fragmentary reports are the statistics of emigration, which show that there is an enormous stream of emigrants from Austria to this country. The number of these discontented home-seekers coming to our shores has run as high as forty thousand a month, which is an astounding record.

The explanation of the unrest in Austria-Hungary, and the exodus therefrom, lies in the fact that the empire as it now stands consists of a conglomerate mass of races that have been gathered together under the name of an empire without proper amalgamation. There is really not as much cause for the name Austria as there would be to call the whole United States New York. If that state should gain the mastery of the rest of the Union, there would be, in addition to racial connection, a common language and a common law; but Austria is lacking in all of these.

The gist of the trouble is that each different nationality wishes to form a nation of its own, and is protesting with all its might against being merged into some other one. At present the only thing that saves the situation is the strong personality of the old emperor, Francis Joseph. The last days of his long reign are his most anxious ones. No one knows what will transpire to-morrow, but all agree that when the venerable ruler dies, the empire that he has struggled so hard to maintain will end with him.

Frequent references are made to the democratic character of the aged emperor. On certain days of the week he actually gives private audiences to the poorest of his subjects. On these occasions the most humble and penniless of his people are admitted to his presence, and no one ever knows the nature of these interviews, because the emperor holds the confidences of his callers so sacred that he never makes known their statements, even though they include the confession of crime.

Probably no ruler ever lived who enjoyed mixing with his subjects more, or practised his freedom so freely. Once when the imperial party was making a journey, the emperor preceded his companions and appeared alone at a small inn. While he was engaged in shaving himself he was interrupted by the landlord who, being on the lookout for the royal party, entered the room and asked His Majesty if he knew the emperor. "I sometimes shave him," was the laconic reply.

The Austrian court maintains many old ceremonials that have been observed for hundreds of years. Prominent among these is the formality known as the "foot-washing." This strange survival of medieval custom occurs during the Easter festivities, and is still given with all the pomp and ceremony that marked its occurrence in the olden times. Every year, on the morning of Holy Thursday, twenty-four gorgeous royal carriages, attended by servants in splendid livery, are sent to gather up twelve old men and as many aged women from the poorest quarter of the city, and fetch them to the Hofburg Palace.

After their arrival at the palace the old people are first served with food by the princes and princesses of the royal family, after which their shoes and stockings are removed by the officers and ladies of the imperial household. After the court chaplain has recited the portion of the gospel describing the Last Supper, the emperor and his royal assistants kneel before the old men and women and pass a wet towel over the bare feet of each, wiping them afterward with a dry one. With his own hands his Majesty puts around the neck of each bewildered visitor a richly ornamented bag containing "thirty pieces of silver" fresh from the government mint; then these humble subjects are driven homeward in all the style that a king can provide.

Another ancient ceremonial which the common public shared with royalty was the mirthful celebration of the appearance of the first violet of the season. According to the rules of this pretty festival, whoever found the first fragrant messenger of spring was carried to the court in triumph. Armed guards were stationed over the ground to prevent anyone from making a search beforehand. At a given hour on the appointed day the participants formed a procession, which was headed by a band of fiddlers wearing bearskin caps ornamented with peacock feathers.

These were followed by motley groups, pages and squires, members of the fools' council in harlequin dress, commoners, and members of the royal family. As soon as the signal was given the crowd scattered over the mountain-side, and whoever found the first blossom was proclaimed king of the festival. The lucky one was given the seat of honor at the banquet which followed, and was presented with a golden violet. He also had the privilege of dancing with the duchess, and his name was entered in the chronicles as a participant in royal ceremonies.

The climax to a meal among the country people of Austria is the serving of a dessert quite unlike anything known in this country. A huge wooden bowl containing fresh fruit, nuts, cakes, etc., is brought in by one of the men servants, and his appearance is the signal for a grand rush and scramble for the contents of the dish. The bowl is supposed to contain hardly enough to accommodate all present, so that those who are backward in joining in the mêlée, or slow in helping themselves are likely to be disappointed. The big receptacle containing the goodies is garnished with flowers and decorated with ribbons and colored paper, and the fun is increased by cunningly concealed sprigs of thorns and stinging nettle, because those who carry off most of the eatables are pretty certain to get plenty of pricks and scratches for being so greedy.

The fads of the Austrian people have taken many eccentric forms. The mania for gambling in one way or another always prevails among the upper classes. Once there was great excitement over the wide-spread craze for snail races. The manner of matching these unusual contestants was to arrange a miniature race course for them, consisting of a row of glass rods. During the race each snail moved along its own rod, which was marked in centimeters and millimeters. Each tiny competitor was designated by a number on its shell, and a minute record of all its performances was kept, to be used as a basis for handicaps in subsequent events. Vienna maintained a club which was devoted exclusively to this extraordinary form of sport, and it is said that more than one ancestral estate was lost as a result of wagers on this absurd pastime.

Austria-Hungary is one of the strongholds of the Roman Catholic Church. At every turn one encounters evidences of its vast possessions, as well as the tremendous power it wields. The official statistics of Hungary show that 1,500,000 acres (two per cent of the land of the entire country) belong to the church. The treasures in the monasteries and churches include collections of pictures, precious stones, and works of art that are more valuable than even the royal collections in some countries. There are about 16,000 Catholic priests in Austria alone, and the church authorities control enormous sums of money.

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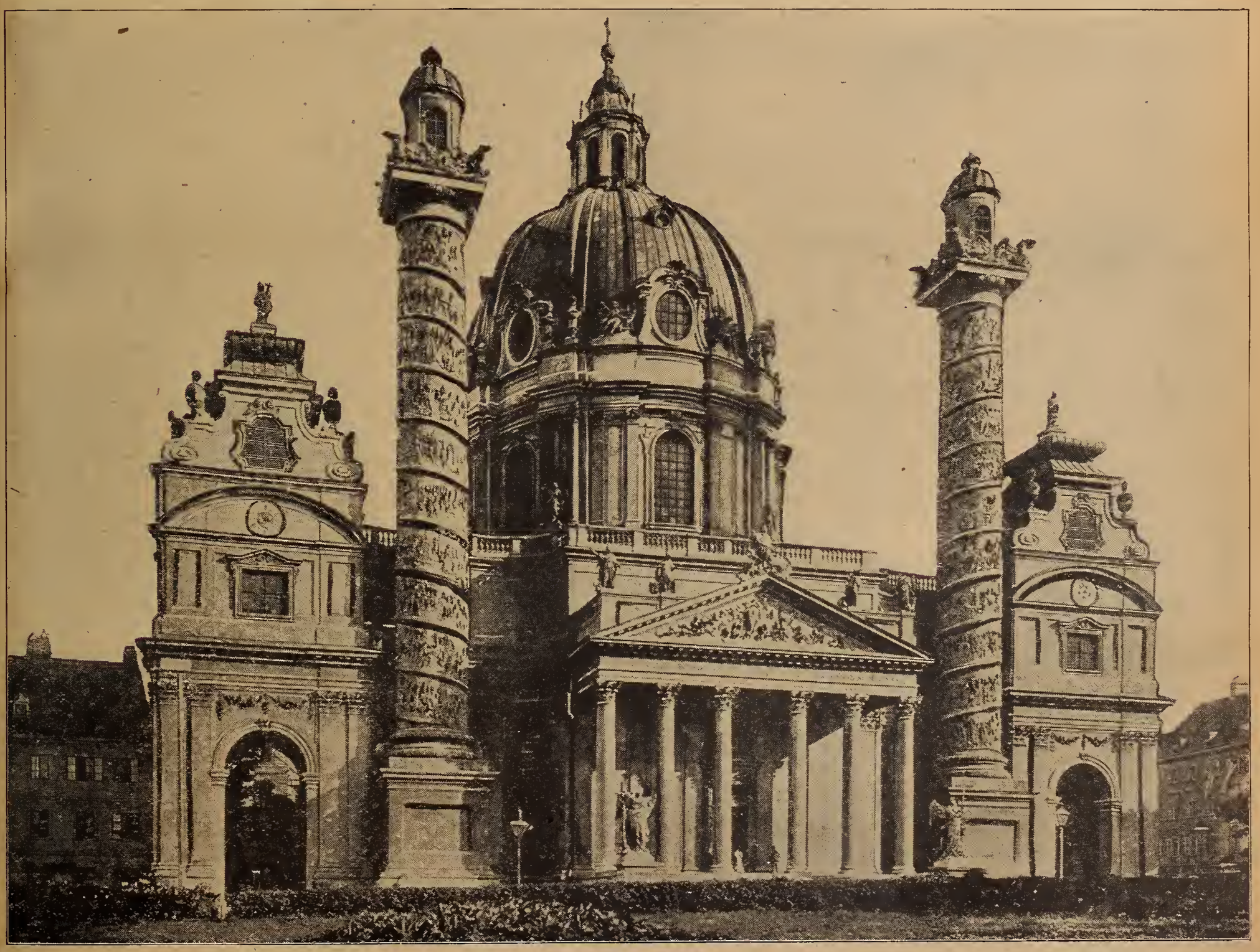

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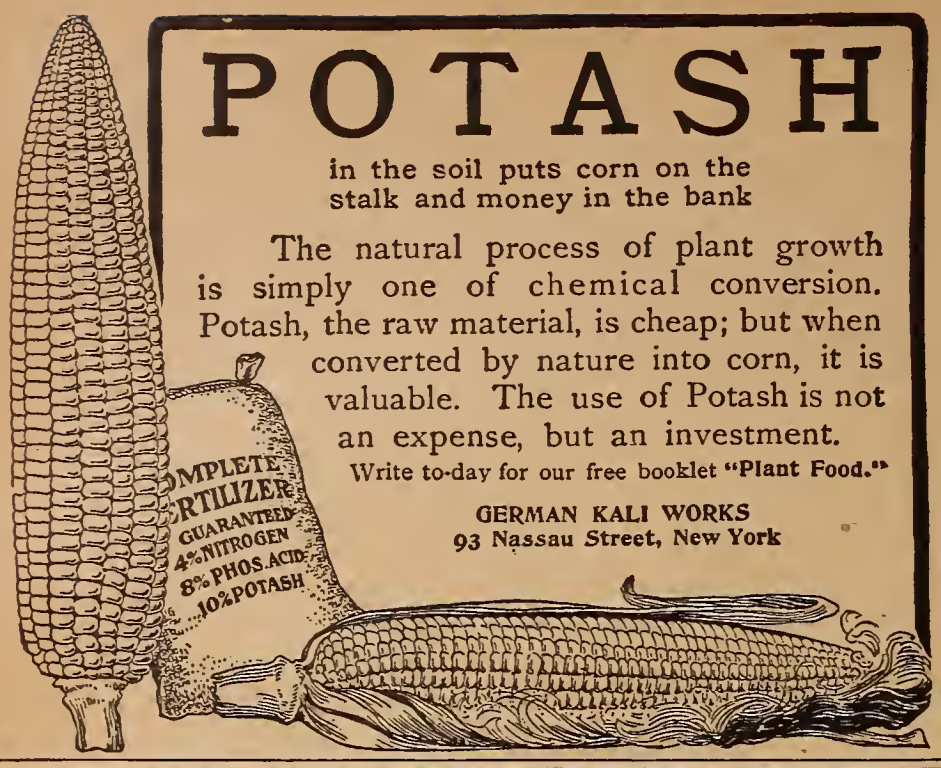

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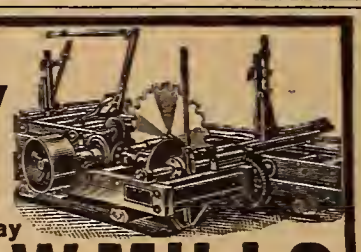

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The Grange

Address of National Master Bachelder

NATIONAL MASTER BACHELDER delivered his first annual address. It breathes forth inspiration; confidence that past efforts will win yet greater victories. The order has never been more prosperous nor made greater gains in membership than this last year. Below are excerpts from one of the best addresses delivered to the National Grange in one of its most successful and important years.

LIFE INSURANCE.

"It is an opportune moment to extend life insurance. Old line companies have been mismanaged and extravagant, but there is confidence in the complete solvency of legal reserve companies. Legal reserve means sound life insurance. Fraternal life insurance companies, owing to unsoundness of the plans of assessment of some companies, have undergone their ordeal, and it will not be long till all that have not reorganized and readjusted their rates will be in similar straits. There is no lack of confidence in fraternal life insurance wisely conducted. It has saved enormously for the people. Old line soundness and fraternal economy must be united. Not cheap life insurance, but good life insurance cheap, is the demand.

Because of expensive agency and home office management the expenses are about $10 per $1,000 in insurance, and four fifths of the death benefits. Fraternal insurance loss is about one-fifth the amount of the old line companies."

PUBLIC HIGHWAY.

"Representative Curries, of New Hampshire, introduced the Grange bill for improvement of public highways. Its enactment was strongly urged by the grange and others, but notwithstanding the importance of the subject, or general agreement as to its importance, no action was taken. The only objection urged was the condition of the public revenue which would not, it is claimed, permit the moderate expenditure of $8,000,000 annually for three years, as provided for in the Curries Bill. In view of the fact that the Senate passed a Ship Subsidy bill providing for the payment of four or five times the amount, and that public funds are voted for much less deserving objects, it can only be considered a little less than a subterfuge.

"I recommend that the grange re-affirm its position, and ask that the appropriation be increased to $10,000,000 annually for five years, calling for $50,000,000, and that a special campaign be conducted for this purpose. If the grange will lead a vigorous campaign it can expect the hearty coöperation of every friend of good roads."

DENATURED ALCOHOL.

"Whether the conditions under which denatural alcohol can be made and used are right, remain for experience to prove. To laymen they seem unnecessarily complicated and restrictive. The experience of other countries indicates that they might be made more liberal without endangering the revenue or weakening the temperance features of the measure. I recommend that the regulations be given a fair trial, but that this phase of the problem be carefully studied. It is much easier to secure changes in the regulations than in the law. The law is in every way satisfactory, ignorant critics to the contrary, and regulations must be made as perfect as the law."

PARCELS-POST.

"The farmers are a unit in their desire for a parcels-post. There is large demand from the cities also. I have no hopes, however, of seeing an early establishment of parcels-post, unless a vigorous campaign, in which all unite, is waged to secure it. I recommend that the grange take the initiative. Special provision should be made for a special rural parcels delivery at a rate much lower than the general rate. When rural free delivery was first established mail carriers found it profitable to carry parcels for the people along the routes. This increased rapidly, and many carriers drove two horses instead of one, and a wagon that could carry a ton.

"The opposition to parcels-post is confined almost wholly to the express companies and rural merchants. The opposition of the express companies is purely monopolistic. If the express companies can serve the people cheaper and better than can the government through a parcels-post, then opposition by the express companies, if they intend to be fair, is groundless, for there is no intent to prohibit them from continuing business. A competitive parcels-post would check the monopoly charges exacted by the express companies, and compel the adoption of more reasonable rates. It is not to save a legitimate business, so as to enable them to earn fair returns on capital invested that they spend large sums of money to prevent the passage of the bill, but to retain a monopoly which enables them to exploit the people. The ending of that monopoly alone would justify the parcels-post.

"The rural merchants' opposition is entirely different. It is founded on ignorance, and will disappear as the true economic drift of a parcels-post is realized. Consider for a moment the sorry position in which the merchant is placed by this opposition. He claims it will destroy his business. Stripped of all sophistry it is a demand that the farmer shall pay him a bounty that he may continue his business by antiquated methods and be protected from the progressive spirit of modern merchandising and twentieth-century methods parcels-post will give the rural merchant an opportunity enjoyed by the most feared catalogue house. Does he have an equal advantage now? Is not the presumption wholly in favor of the belief that large express rebates, or low rates, are enjoyed by these houses similar to the special freight privileges which have been potent factors in building up other great corporations and monopolies? Under present conditions the rural merchant has a heavy handicap. Under grange parcels-post plan united to the grange plan of suppressing freight rate privileges in favor of large shippers or terminal cities, the advantages are all on the side of the rural merchant. It is monopoly and not a square deal the rural merchant has to fear, and parcels-post is a step toward abolishing monopolies which have caused the decay of our villages and small cities.

"Among the most insistent objections to the establishment of a parcels-post, which is claimed to have great weight with Congress is the present condition of the postal revenue and the belief that the cost of parcels-post would be very heavy. The present deficit is only apparent, and there would be a large surplus if postal abuses were corrected. To secure parcels-post I believe it will be necessary to include other measures of postal reform, and I recommend as measures to be advocated in connection with parcels-post; (1) correct the abuses of the franking privilege; (2) withdraw free postage from all departments of the government and provide in lieu thereof that the postal service of each department be met by specified appropriations to be included in the general congressional appropriation; (3) provide for the readjustment of railroad mail contracts; (4) make it obligatory on the postmaster-general to include in his annual reports detailed information showing the actual loss of each department and the revenue derived from each. I am convinced that a grange postal reform bill, or bills, including these measures, in addition to a demand for parcels-post, would appeal to every public-spirited citizen, and that all friends of postal reform would support the effort.

SHIP SUBSIDY BILL.

"The grange presented the passage of the notorious Ship Subsidy Bill, which an active lobby has pushed in Washington. A measure providing for the ultimate payment of $120,000,000 to certain shipowners was vigorously advocated and passed by the Senate. When the bill came before the House the supporters announced that President Roosevelt endorsed it; that Speaker Cannon had consented to allow it to come up for action, and that it would undoubtedly become a law at that session. The grange took prompt action to prevent the enactment of the bill by the House. A statement giving reasons why the pending measure should not become a law was sent to the various granges and members were asked to write their congressman in opposition to the bill. The prompt action was effective in preventing the enactment of the bill into a law.

TRANSPORTATION.

"An eminent authority upon transportation recently asserted that the growth of the traffic ton mileage has increased in ten years 110 per cent and that the growth of the mileage of railroads has increased in the same period but 20 per cent. Through the influence of great transportation companies the building of competing lines has been prevented and completion in transportation stifled until we encounter the present congested condition in the movement of our crops. This policy has brought large dividends to the owners of railroads, but has resulted in almost unbearable hardship to the farmers of the country. It will require 115,000 miles of new track to take care of this immense business, at a cost of from four to five billion dollars, or as much as the cost of the Civil War. There are not enough rails or work to do this. The domination of great trunk lines is responsible for this, and the farmers are the sufferers. We again urge the speedy construction of a ship canal from the Great Lakes to the Mississippi River, and from the Mississippi to the Atlantic Ocean.

A JUST REBUKE.

"When a public official arrogantly assumes dictation of the needs of his constituents in great public matters, ignoring their requests, he challenges their intelligence and invites their opposition, and when such officials are dealing with national affairs affecting agriculture, their official career becomes a matter of national concern. When Mr. James W. Wadsworth, of New York, as Chairman of the Committee on Agriculture of the House of Representatives, ignored the requests of farmers as expressed through this organization and other channels, and when Mr. Chas. H. Grosvenor, of Ohio, replied to a letter from this organization of about a million members, calling attention to a legislative matter upon which it had taken action, in these words, 'Your communication is unworthy the attention of any fair-minded person,' they antagonized the greatest industry in the country. Their recent defeat for reëlection is a fitting rebuke, and should be a warning to public officials claiming to represent an agricultural constituency."

The Strange Adventures of Helen Mortimer

By Maude Roosevelt

Synopsis of Previous Chapters

"An old lady going abroad wishes a young woman to act as traveling companion, must not be over twenty-five, and be able to speak French."

Helen Mortimer, a poor, ambitious, energetic New York girl, answers the above advertisement and gets the position. Mrs. Harold Pancoast, her employer, entrusts her with a small steamer trunk, the contents of which are of great and mysterious value. Helen hoards ship, and awaits the promised arrival of Mrs. Pancoast. The latter fails to put in an appearance, and Helen Mortimer sails alone. A telegram delivered by Mrs. Pancoast's attorney just before the ship left, stated she was unavoidably detained, but would follow by next steamer, and gave address of London stopping-place for Helen. Ahoard ship Helen makes the acquaintance of Mrs. and Miss Watson, the latter of whom absorbs much of the attention of one Guy Halifax, much to the regret of Miss Mortimer. A fellow, whose name on the passenger list is George R. Barrington, seemingly forces his attentions on Helen in a very suspicious manner, and Worrendale, another character, seems to be in league with Barrington. These two men have very earnestly endeavored to get acquainted with Helen's plans. One evening Helen detected a strange odor of perfume as she entered her stateroom, and later discovered that her traveling bag had been ransacked, and though it contained money, nothing was taken hut Mrs. Pancoast's telegram containing the London address.

I THINK it was Prince Street, but whether twenty-eight, thirty-eight or eighteen I can't be sure. As soon as you get this letter, write me immediately to Thomas Cook and Sons, London, get their address from Cook in New York, and tell me the address I wrote you in my pilot letter. Heaven knows what I am going to do when I get to London. I shall have to go to some hotel, and await your letter. Of course, it will be perfectly safe, but it means so much expense, and besides I want to be at the place Mrs. Pancoast told me to go to when she gets there. She will be furious when she hears I have lost that telegram—had it stolen from me!

"This new mystery really makes me a little afraid. I can't understand who could have done it, for the only two suspicious persons—Barrington and Worrendale—were with me all afternoon; and I know it was not taken before luncheon, for I looked in the bag before I went into the dining-room.

"I feel as though I were in a hotbed of mystery. It is rather exciting, but I am worried about that telegram. When I had made sure it was gone, I pulled Mrs. Pancoast's trunk from under the berth, and examined it carefully to see if my unknown visitor had tampered with that. But it had evidently not been touched. This was a relief, but I tell you I am going to be very careful in the future, and lock my stateroom when I go out.

"But this is not all I have to tell you of this eventful day. The sea has been growing steadily rougher, and at dinner they had racks on the table. There were several places vacant, and, among others, Ethel Watson was absent, also the people opposite me and the Frenchwoman who sits on my left. I was pitilessly glad to see that E. W. had been forced to succumb, especially as Halifax glanced my way several times, and called out he was glad to see I still stood by my guns. After dinner, while I was playing with some fruit, he came over and asked me if I would venture out on deck with him, which I agreed to do as condescendingly as possible, although I was delighted to get away from Barrington. We went up immediately. Halifax helped me on with my ulster, and we went out on the lower deck, walking forward to the very end of the bow. What do you think his first words were to me, when we got outside?

"'Well you certainly are the belle of the ship!' Imagine! Coming from him it nearly took my breath away. But I was very calm, and answered quite naturally, 'I don't think there is much chance for anyone to be a belle; but why do you say I am?'

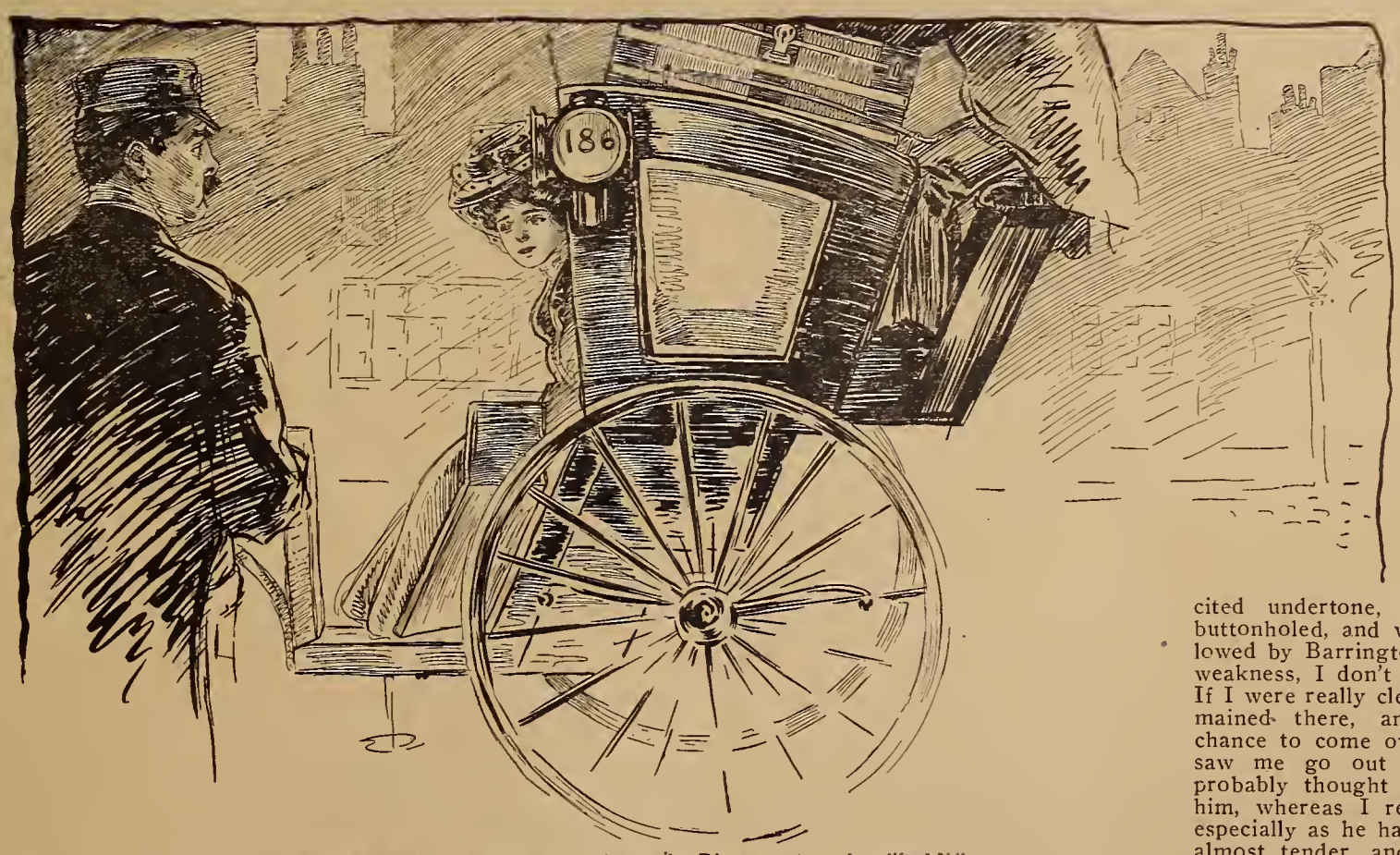
"'You always have a devotee in attendance, and now there are two.'

"His easy manner and nice voice were such a relief after Barrington and his friend that they seemed even more objectionable by comparison, and I began to feel ashamed to know he had noticed their attentions. 'Oh, I could very well dispense with their devotion,' I said, laughing. 'That is one objectionable feature of ocean travel.'

"He laughed softly, more to himself than in answer to my remark. 'Yes it is,' he said, 'we are penned up in close quarters, and have to make the best of it. I imagined you were enjoying yourself hugely, that's why I haven't ventured to intrude.'

"I have grown so suspicious of everyone lately that these words seemed insincere, and I said lightly, 'Well, why were you so courageous to-night?'

"'Because you looked over and gave me a little encouragement, so I thought perhaps you were growing tired of your conquests and might allow me a chance.'



"'Don't be scared, miss! I hain't goin' to 'urt ye! Di ye want yer box lifted?'"

"He said it so nicely! He is really a very attractive man, and I enjoyed my talk with him to-night more than anything during the voyage. He is a lawyer, and also writes, as he says, in 'a small way,' but I imagine in a very clever way, for he is extremely cultured, and seems to have traveled all over the world. We sat out in the bow until after ten, and really conversed on very interesting and elevated topics. His anecdotes of his travels are so different to Barrington's. No blood-curdling romances, but descriptions of unfamiliar parts of the world, and the customs and absorbing details of different peoples. When I got up to come down to bed, he asked me to come in to breakfast early to-morrow, so we could get out before Barrington appeared. I wanted to remind him that perhaps E. W. would come in early, too, but as he had not mentioned her, I decided I would not.

"As we passed by the smoking-room we happened to be silent, and I heard Worrendale's voice coming through an open window—you know the smoking-room is built up from the deck—and what he said was, 'Well, the only thing to do is to exert your fascinations over her. You've won at it before, why not again?' Then I heard Barrington's hiss, and his voice, but could not catch what he said.

"'Your friends are still waiting for you!' said Halifax laughing, and I wondered if he had heard the words and connected them, as I did, with me.

"Well, this is the end of the third day, and things are beginning to develop."

"Saturday, September 11th.

"This has been an uneventful, but very pleasant day. The sea is still high, and a stiff wind is blowing, but it is the sort of day I like at sea. There is a delicious wildness about it, and a fierce independence that I love. I think if Halifax were a little rougher I should be very much 'smitten;' but he is always courteous and considerate, and calm as a lake on a midsummer's day, and than that, there is nothing more monotonous. Ethel W. has not appeared since yesterday, and her mother told me, confidentially, that she is suffering very much from the sea. Poor thing, I do feel sorry for her, in a way, for it must be horrible for her to feel she is out of the battle, and that I am in! Halifax has been most attentive; and what do you think? I had the temerity to speak of E. W. this morning to him, merely said what a pity it was she suffered so on the sea, and he said, yes, he had been ill once, and it wasn't a pleasant experience. I said, 'she seems to be an awfully nice girl, though I haven't had much chance to get to know her better.' He said, 'yes, but what a talker! I know women are usually very loquacious, but she beats anyone I have ever met!'

"'She seems to be amusing!' I remarked, as a feeler, and his reply was, 'Oh, yes, she is in a way. But there is nothing much in what she says, all effervescence, and one can't be dosed with champagne the whole time you know.'

"Well, ignoble as it may seem, I couldn't help feeling glad, especially as he seems to take pleasure in being with me. Of course, I don't want you to imagine he is falling in love with me, or anything of that sort. He is not the kind of man to fall in love with any woman; he is merely passing time as pleasantly as possible and fundamentally absorbed in his own future. He likes me, I think, because I take interest in his literary work, and listen to him instead of talking all the time, as she does.

"Barrington has tried all day to get me to make engagements with him, and this afternoon sent me a note with a book, of which he had spoken to me; but I returned it; giving as excuse that I could not read anything at sea on account of my eyes. A lovely fib, but I want to keep away from him and Worrendale as much as possible, for I can't help feeling they have something to do with the stealing of that telegram, and it worries me very much. Why it should have been taken I don't understand, but there is certainly something ominous in its strange disappearance; don't you think so? I am afraid to make complaint about it, for fear I might rouse suspicion; people will wonder why I should care so much about the loss of a telegram."

"Sunday, September 12th.

"We had service to-day in the dining-room, which both Barrington and Halifax attended; and Ethel Watson, with a lot of unnatural color, joined in the hymns with piercing high notes, held beyond everyone else, and entirely out of time. Of course, she attracted a lot of attention, and seemed terribly puffed-up about it; she acted as though she were Melba, deigning to humble herself for the cause of religion!

"'A fine voice,' whispered Barrington in my ear, and I said, 'Do you think so?' whereupon he immediately changed and said, 'I mean the embryo of a fine voice. Of course, it needs a lot of training and so forth!' as though he knew!

"When the service was over I saw E. W. go over to Halifax and talk to him in an excited undertone, so I knew he was buttonholed, and went up on deck, followed by Barrington. This is my great weakness, I don't exert myself enough! If I were really clever, I would have remained there, and given Halifax a chance to come over to me. When he saw me go out with Barrington, he probably thought I wanted to be with him, whereas I really loathe the man, especially as he has now taken to being almost tender, and says little insinuating things to suggest that he cares for me. This makes me sure that what I heard from the smoking-room window last night was said in reference to me, and he has some object in trying to get me interested in him. He may try until he is tired, he will never succeed!

"He walked beside me up and down the deck, and complained that I had been unnecessarily cold to him, and sneered at Halifax. I said, 'I don't see what reason you have to think I should give my time to you.'

"'You gave it to me in the beginning,' he replied, 'and it seems to me rather unfair to suddenly turn a cold shoulder.'

"'I don't believe in giving anyone too much time on board a ship,' I said, 'it only causes talk. And besides, what do I know of you?'

"'You know more than any woman I have met for a long time. I am not

given to talking much to women, Miss Mortimer, but you attracted me from the first, and I have told you more of my life than I have ever told anyone.'

"'I am very flattered,' I returned coldly, 'but surely I did not seek your confidence, and I don't feel under any obligation for having it.'

"He turned on me sharply, 'you can't play with a man of my sort like that!' he said, 'it isn't just, and if you have anything against me, I should like to know it.'

"He spoke with such suppressed excitement my heart seemed to stop for a moment, but I replied quite calmly, 'Oh, I have nothing against you; I don't consider you one way or the other.'

"You should have seen how he looked at me! His eyes were wide with anger and amazement.

"'You are the coolest person I ever met,' he said. 'You don't mind hurting a man do you?'

"'I don't mean to hurt anyone,' I returned, 'but when you take this attitude I must tell you the truth. Now I must leave you, because I have an engagement.'

"'Halifax I suppose,' he said through his teeth.

"'No, with Mrs. Watson.'

"'Well, will you give me a little time this evening?' he asked more gently. 'I have something important to say to you, something I must tell you before the voyage is over.'

"I can't describe the way he said this, it made me shiver, and I was so afraid to see him again that I came straight here to my stateroom after dinner, and did not go out on deck at all.

"Monday, September 13th.

"Well, this will probably be my last day on board; as we expect to get in some time to-morrow, and then the trouble will begin. Think of me being alone in the great city of London and not knowing even where I shall go! It is most exciting, but I do hate to leave the wide beautiful sea, where I have forgotten my poverty for the first time in two years.

"Halifax says he will be in London in the latter part of October, and has asked to be allowed to call; but I had to put him off, as I don't know where I shall be. However, he has given me his address in Liverpool, and I have promised to write him as soon as I am settled. He said this morning, in quite a parental way, that he didn't like the idea of my being alone in London, and he wished I would look upon him as a friend. It made me feel quite happy, for he is the sort of man one can depend on, and is not likely to take advantage of a girl who is unprotected. He was so nice this morning, I told him a little about my situation, pretending it was a friend who was to come with me and missed the train, and he comforted me by saying there was no reason to worry about it, my friend would turn up all right, and advised me to go to a house where his sister often stops, on Queen Anne Street, which he says is very nice and he is to give me a letter to the landlady to secure me a welcome.

"'Barrington is to be more lucky than I,' he said, 'as he goes direct to London and will probably see you.' And I replied, 'He will certainly not be allowed to call on me.'

"'Why? Don't you like him?'

"'No, I dislike him very much. He has very nearly spoiled the trip for me.'

"He laughed, 'By Jove! is that so? Well, I am very glad to hear it, for he isn't the sort of chap I should think would appeal to you. There seems to me something shady about him. I have tried to draw him into conversation several times, but he always appears preoccupied and reticent.'

"I was crazy to tell him about the telegram, but as I really know nothing about him but what he has told me, I refrained, for this much I have learned in life—the fewer confidants one has the better, and those few must be above suspicion!

"After luncheon, as I had no appetite, I came up when the meal was only half over, and who do you think came up after me?

"Charles Lawson! He has been simply inseparable from Mrs. Greeley all during the voyage, although he has tried several times to draw me into conversation, so I was very much surprised he should make such a point of following me, especially as Mrs. Greeley was still at the table.

"'I say, Miss Mortimer,' he said, 'would you mind telling me why you so persistently avoid me? What have I done?'

"'I don't avoid you,' I replied, 'but we are quite strangers, I cannot—'

"'Oh, you want a legitimate introduction, is that it? One doesn't as a rule need that on board a ship, but I shall arrange it, if you like!' He laughed, and pulled at his mustache in a superior amused way that made me angry.

"'I don't want an introduction, thank you,' I said, 'but I really fail to see what we could have in common. You belong to an entirely different world to mine.'

"'Oh, come, you can't tell that until you have given me a trial! We might prove very congenial. I am going to be in London for some time, and, if you will let me. I shall give you a good time, in a perfectly nice way, show you about, and that! Will you?'

"'No, thank you very much, I am not going to London to be amused.'

"'What are you going for, if I may presume to ask?'

"He was still laughing, as though I were some silly child, sure to succumb in time to his fascinations.

"'I am going for private reasons,' I said cooly, 'I really don't consider it could be of interest to you.'

"He leaned against a post and looked grave, 'Now I don't think I deserve to be treated like this,' he said, fixing his handsome eyes upon me reproachfully—he has the longest lashes and the bluest eyes I ever saw, but I know the sort of man he is, and looked back into them quite indifferently, though I must say I felt a touch of the charm that has won so many women. I think the very fact of knowing him to be the Don Juan his is, stimulated my appreciation of his good looks, although in my heart I hated him.

"'Let us sit down over there,' he continued, 'and see if we can't become friends.'

"'No, I don't care to sit down.'

"'Then will you walk a little? I should like to know you better, and even more, I should like you to get a better opinion of me. Come, I shall be as gentle as a lamb, and we shall have a nice little hour together before the others come up. I am blue, I need someone to comfort me, and I feel you could do it.'

"He has the most attractive way with women of any man I have ever known, a sort of boyish appeal that makes one hate to deny what he asks, so I submissively walked up and down with him while he talked in a musical undertone and told me how he craved some good woman's influence, and how most women only sought to bring out his worst qualities. There was really a great deal in what he said, to show that, under different circumstances, he might have been a very much better man. He appears utterly tired of the smart set life in New York. Of course it was probably only a passing mood, but it went to prove that he is not all bad. He was really quite pathetic when he said he sometimes wishes he were a poor man, living on a farm with a good woman as his wife, and with nothing more exciting about him than the beauties of nature. It does seem a shame that a man with so many good qualities should throw his life away as he is doing, and I told him so. He listened with such a serious, sad expression, I vow I felt sorry for him, and when he said, 'Yes, think of it! I am now thirty-two, and I haven't done anything in my life but amuse myself, never a good turn to anyone at a sacrifice to my own pleasure.' He was like a repentant boy, who had played truant and was asking forgiveness. 'Of course, my friends,' he said, 'I have never failed them, thank heaven, for friendship is too dear and rare a thing to be neglected, and I have had some good ones. One poor chap,—the best fellow in the world.—turned against me on account of a woman. The poor devil went to the dogs afterward, and then was the time I had a chance to prove to him how unjust he had been to me. He had gotten to the very depths, ran through all his funds, and in the end forged a check on me for three thousand. Of course, I let it pass as good, and set him up in business again. Now he is getting on splendidly, and is my closest pal. I knew he was a good sort from the beginning, and had only gone under from force of circumstances.'

"Now, a man who could do that, can't be half bad, do you think? I know my opinion of him went up many degrees and we were getting on splendidly when Mrs. Greeley came on deck. She immediately espied us and came over. She had never before noticed me even by a nod, but now she asked me most affably if we had not had a charming voyage, and one or two other questions, while Lawson stood up out of respect. Presently she said to him, 'If we are to finish that book, Mr. Lawson, you must come soon, for I am afraid I shall be getting terribly sleepy before long,' then turned away, and strolled down the deck. Lawson heaved a sigh and said, 'I don't feel a bit like reading aloud, it is so nice to sit here and talk to you; but we are both deep in the book—an unusually clever one. Shall I see you after dinner?'

"'I shall be somewhere on the ship,' I returned, 'unless someone throws me overboard!'

"'No one shall do that, unless they throw me first,' he said, 'and I'd fight pretty hard now that I have the prospect of another chat with you.'

"When he was gone, I sat thinking. It seemed quite impossible that this nice, almost sorrowful man was the one I have lived in horror of all during the voyage. Even Halifax has faded somewhat in comparison with him. Halifax is so staid and abstract, while Lawson gives one the impression of controlled force, even while he appeals to one's sympathy. He is altogther absorbed in the person he talks to, without ever resorting to inane insinuations, or open flattery, and yet he makes one feel complimented by his attention.

"Halifax joined me a little later, saying, 'I see you have made another conquest! If this voyage were to continue another week, I'm afraid to think what the consequences would be.'

"I thought this rather stupid, and changed the subject without noticing it. We talked books for some time, and I was really rather bored.

"I know I was very dull with him, and it was a relief when Ethel Watson came along and took his chair, while he found another. As usual, she did all the talking, and I listened highly amused by his patient expression. When I could endure no longer, I left them together and came down here.

"I must acknowledge I was looking forward rather to seeing Lawson in the evening, but neither he nor Mrs. Greeley appeared on the deck after dinner, and I was accompanied from the table by Barrington. But first I must tell you something of importance. Do you remember the Frenchwoman I told you of that sat on my left at table? Well, she has been ill, and this evening was the first time she has appeared for several days. She was very much dressed, and came in late. As she took her place beside me a strong whiff of strangely familiar fragrance reached me, and I recognized it at once to be the same I had noticed in my stateroom the day the telegram was stolen. You can imagine my excitement, for there was absolutely no mistaking it, as it is an odd, new perfume, that once smelt can never be forgotten. But how could she know that telegram was there, and what could she want with it?

"When I got on deck with Barrington I led him under an electric light, and then, looking him straight in the face, said, 'Do you know that Frenchwoman who sits next to me?'

"He looked surprised. 'I have spoken to her, yes,' he returned, 'why?'

"'I mean, is she a friend of yours? Did you know her before you came on board?'

"'No, indeed, how in the world should I know her? She comes from Canada.'

"'Is that one part of the world you have never been to?' I asked, remembering he had once told me some incident that had occurred in Montreal, merely having mentioned it in connection with another story he was relating.

"'No, never,' he replied.

"'But you told me once you had been in Montreal.' You see girls, my good memory serves me well at times.

"'Oh, I passed through, that was all,' he returned, with the usual hissing smile, and winking his eyes rapidly as though trying to remember what he had told me. 'I met none of the people there. But why do you think I have known Madame Patrie before?'

"'I don't think it. I merely wanted to know if you could tell me anything about her, because she was in my stateroom the other day.'

"I was looking straight at him, and I saw his muscles contract a little, and he looked at me quickly.

"'In your stateroom!' he exclaimed as though astonished. 'What was she doing there?'

"'I don't know, but my satchel was opened and a telegram from my aunt taken.'

"'A telegram from your aunt! Why, what a strange thing to steal. Surely—Look here, you seem to have some unreasonable distrust of me, why is it?'

"'I was not speaking of you. I alluded to Madame Patrie, who—'

"But you suspected her to be a friend of mine—a woman you believe—It is rather hard to have you feel this way about me, under the circumstances.'

"He leaned over the bulwark, looking very pained, and I foolishly said, 'Under the circumstances! I don't understand, what circumstances?'

"'The unfortunate fact that I love you,' he replied with feeling. 'I have loved you from the first moment we met.'

"Then, my dears, he had the audacity to catch hold of my hand. I tried to draw it away, saying, 'Please don't do that!' but he held to me.

"'You must give me some hope,' he said. 'No woman has ever had so much power over me! I could sacrifice everything to—'

"I pulled away. 'I think you are very—extraordinary, to speak to me like this on so slight an acquaintance,' I returned scarcely knowing what to say.

"'One day was enough,' he began; but I turned away. He followed and caught me by the arm most roughly, saying dramatically, 'You must hear me, you shall hear me!'

"'No I shall not,' I said. 'Let me go or I shall call someone.'

"'Call!' he replied, 'I don't care. I love you, and I am not going to give up easily. You have a false idea of me. Let me prove to you I am not what you think, let me—'

"'Please don't hold me,' I interrupted. 'This is very foolish. If you care for me, I am sorry, for I could never return it.'

"'Don't go yet,' he pleaded. 'I lost my head for a moment, I apologize! Please wait, let me talk to you.'

"'No, I am going down,' I said. 'Good-night!'

"He stood in front of me. 'Do you mean you are going to throw me off like this?' he asked in a suppressed voice. 'To-morrow we shall land, it will be dreadful if we must part like this.'

"'It is your own fault,' I returned. 'You had no right to speak to me as you have.'

"'Is a man to conceal what he feels forever? If you had given me any hope of seeing you in London, I should not have spoken so soon, but you drove me mad with your suspicions and repellant attitude.'

"'I am very sorry.'

"We were now walking toward the entrance to the stairway, and I did not dare to say more. I was so anxious to get away from him. Ethel W. and Halifax were sitting by the door, and as we approached the latter got up.

"'You are not going down so early, Miss Mortimer!' he said and I returned. 'Yes, I am very tired,' and went on. Barrington accompanied me to the head of the stairs.

"'Will you not give me some encouraging word?' he said in an undertone, although there was no one within hearing.

"'I cannot, sincerely,' I returned.

"He looked steadily in my face, and I looked back unflinchingly despite the flutter of fear his expression caused me.

"'Do you mean we are to part to-morrow like strangers?' he asked.

"'Certainly, we are only strangers, people cannot become close friends during a few days on board ship.'

"He caught hold of my arm again as I descended one step, and bringing his face close to mine, said in a hissing whisper, 'Well, I say we shall not! You shall not escape me, remember what I say! I need you, and I shall have you!'

"I pulled away from him and sped down the stairs, my heart beating with terror. I never can tell you how he looked in that moment, and the indominable will expressed in his voice.

"My hands were trembling so I could scarcely unlock my stateroom, and, while fumbling with the key, I noticed a note sticking in the crack of the door. The handwriting was unfamiliar, and in my overwrought state I was afraid to open it until I was calmer, fearing it might contain some new element to worry me.

"But it proved to be a few lines from Lawson saying, 'I am so disappointed not to have been able to see you this evening, but I was unavoidably prevented from doing so. Yet my pleasant hour with you this afternoon makes me hope you will let me see you in London. I ask this most urgently, for I feel that in you I have met the sort of friend I need in life. You did me a lot of good to-day, and I shall look forward to seeing you again. Will you drop me a line to the Primrose Club when you have a leisure hour you can give me? I shall await it impatiently.

Ever yours most gratefully,
Charles Wentworth Lawson.

"What do you think of that? One would imagine I had done a lot to attract him, whereas I merely talked as I would to any other man. Of course, I don't mean to see him, at least I feel

as if I will not to-night, for I have grown afraid of all men! Thank heaven to-morrow I shall be on terra firma, for I can tell you I am very tired of being cooped up with people who act as strangely as these do. I used to think I knew something of the world, but now I realize I am as ignorant as a new-born babe. One meets with such peculiar characters, it is impossible to know how to treat them!

"I shall write you as soon as I am settled in London, and now good-by for a time, and accept much love from your baffled and anxious friend.

Helen."

One dark rainy afternoon, two weeks after Helen's last letter, Mary Halloway was sitting brooding in her studio, alone. It was now too dark to paint, and she was obliged to leave her nearly finished canvas until the morrow, impatient as she was to put the final touches to the most ambitious and successful piece of work she had yet done.

The painting was the development of a rough design that had won her a two-hundred-dollar order for a magazine Christmas cover, and the beauty and originality of which promised to attract attention and open the way to success. Yet the girl's face expressed anything but happiness. She was leaning forward on her hand, gazing into the shadowed recesses of the room, her eyes wide, her plain, tired face expressing the lonely sadness in her heart.

For three years she and her cousin had lived together, sharing each other's troubles and joys in their struggles for self-support, and now Edith was engaged to be married, and the prospect of being left alone was not a pleasant one. In Edith's presence she had evinced only sympathetic response to her happiness, but during hours of loneliness, which lately had become so frequent, she was brought face to face with the desolation of her own position in the world, and before it even the success for which she had labored so diligently seemed to lose its glamor.

Edith had assured her they would pursue their work together as usual after her marriage, for George Newman was a man of limited means, and she wished to do her share toward meeting their expenses, since she enjoyed the work, and was not willing to give it up.

But Mary, who had had some experience in such things through the marriage of her only sister, knew their relations could never be the same again, and, although she was happy for the girl's sake, deep in her own heart she was miserable with that horror of loneliness, than which there is nothing worse in life.

The marriage was to take place in three weeks, followed by a honeymoon of a fortnight or so, and then the choosing and furnishing of the apartment home, all of which she knew would occupy the bride to the exclusion of every other interest and thought.

Presently she got up, took off her paint apron, and looked at the clock. It was after five; Edith and her fiancé would soon be returning from the matinee, and she must shake off the dumps!

She went to the mirror, and tidied her colorless hair that worry and labor had already thinned at the temples.

"I am old," she said half aloud, as she looked upon the lined face reflected. "I was always old, and I shall go on the same way, work, work, work, to the end of the chapter! There is no use kicking!" She sighed, and put the comb back in its drawer wearily, while her thoughts strayed, as they so often did of late, to far-away Helen, concerning whom both she and her cousin had been much troubled since her last letter. As compared with the peril and uncertainty of Helen's life, her own appeared sufficiently secure and promising, and she told herself she was ungrateful to bemoan it; yet, truth to tell, she would have been willing at that moment to exchange with her friend, had fate endowed her with like beauty and youth, for everything looked dark to her then, and even the prospect of realizing the ambition toward which she was laboring held little charm.

The wide bare room, with its easels looming like skeletons against the gloom, seemed emblematic of the lonely years to come, and she longed with unreasoning yearning to be with Helen, fighting the world actively, instead of plodding forever within four walls at the art which was really very dear to her, although for the moment her overtired nature rebelled against it.

During the period that had elapsed since Helen's last letter, both she and Edith had been in a fever of anxiety concerning her. That events of the gravest character were likely to follow

HELEN

the circumstances she had related they felt was beyond a doubt, and their impatience to learn more increased as the days passed. To Mary, especially, was the delay trying, for there was nothing to divert her thoughts from following Helen through the channels of dangerous complications which her last communication had suggested were very likely to be the consequences of those conditions; and there in the dusk, oppressed by her solitude and unable to lose herself in work, her fancy conjured up all manner of possibilities concerning her, although what she pictured fell far short of the truth.

When at last the sound of footsteps on the stairs reached her, she hurried to the door and called, "Is that you, Edith?"

"Yes," responded a breathless voice, "and I have a letter from Helen!"

The speaker appeared a moment later, radiant with excitement and happiness, and waving a fat letter frantically in the air.

Mary took it, saying, "Did you get it at the house?"

"No; it came here. I found it in the box just now, so told George not to come up. The play was splendid; and Mary, he has got tickets for another on Wednesday night, so you must come, for you can't paint at night, and you will have no excuse."

"That was very kind of him, I shall love it!" returned Mary, as she lighted the gas. "But come, let us read this. Thank heaven it has arrived!"

"Yes, and do you know, George is going to send us some things so we can have a little dinner here, and not go back to the house; isn't it fine? He will call for us at eleven, and take us home.

Mary, who had torn open the envelope, read aloud in astonishment, "Thirty-one Oakley Street, Chelsea, London!" adding, "why she is not at the address she gave us, she will not get our letters!"

"She must have got one," returned Edith sitting beside her, "or she would not have sent this to the studio. Read on, perhaps she was not able to get a room at the Queen Anne Street house."

Mary smoothed the pages out, and continued:

"Dearest Girls:—

"Here I am, in the biggest, darkest, most interesting city in the world, and oh, it is splendid, despite the fact that I have had such a time! But I shall start from the beginning, so you will be able to follow my every movement. Well, first we landed at Liverpool at eleven o'clock. We were held off from shore for many hours by the most terrifying fog it has ever been my fortune to witness. I can tell you it is no joke to be at sea, so near land, in a fog! I don't think I should have minded if it were not for the fright of everyone else on board, as I shouldn't have appreciated the danger. But even the captain was anxious, and people sat about with white, scared faces, as though they expected every moment to be blown up. However, the fog lifted at last, and we got in safely. I shall tell you all that happened. First of all, what do you think! The Watsons decided to remain over night in Liverpool! Said they were too unnerved and tired to go on to London, and invited Halifax to dine with them that evening at their hotel!

Wasn't that a transparent scheme? Halifax told me of it in an offhand way, and said he had accepted. Of course, it meant he would be obliged to return the courtesy by devotion while they remain in Liverpool, which will probably be for a week at least. Nevertheless, when we left the ship he attached himself to me in the most determined manner, simply walking over Barrington, who assumed the air of my protector and cavalier. I was so glad! Ethel Watson looked inexpressible things, and while Halifax was seeing to having my luggage examined, she came deliberately up to him and said, "Oh Mr. Halifax do be an angel, and have our things brought up quickly, we are so tired!"

Of course, he had to take her checks, too, and called for her trunks; but he never left my side, and she never left his!

"Well, I was in an agony of suspense when that fateful steamer trunk was set down before us on the counter! My blood ran cold with apprehension.

"'Bring out your keys,' said Halifax, 'and look perfectly indifferent, and they will probably not even open your things. This English examination isn't very severe.'

"Well, as you know my dears, I haven't any key to that trunk, and I didn't know what to do! Think of Mrs. Pancoast forgetting such an important point! Or perhaps she didn't forget it, but did it purposely!

"No one can ever know what I endured during that half hour. I believed then nothing could ever be worse, but now I know better!

"'Hurry!' whispered Halifax, 'the man is coming.' And then I had to confess to him that I had no keys.

"'You haven't a key to your trunk!' he exclaimed, still low. 'Nonsense, you must have it somewhere!'

"'No, I forgot it,' I returned. 'What shall I do?'

"He thought a moment; then took two bunches of keys from his own pocket; saying aloud quite easily, 'These are yours, aren't they? I hope I haven't got them confused with mine!'

"Barrington was standing a little way beyond us, although I don't think he could have heard all, but I could see he was slyly watching us.

"'Anything dutiable in this?' asked the examining official, pulling at the straps.

"'Nothing, here are the keys!' replied Halifax, with the most adorable sang froid.

"'No cigarettes, cigars, liquor?' inquired the man.

"'It is this lady's box,' returned Halifax with a genial laugh, 'I fancy she has better things than those in it.'

"The man smiled, 'Oh, I thought it was yours,' he said, 'Nothing of that sort in it, madame?'

"'Nothing,' I replied as carelessly as I could, and then, my dears, he made a mark on it and went on to the next, which was Mrs. Watson's. I can't tell you the relief it was to me. Supposing his suspicions had been aroused by my not having a key, and he had forced that trunk open and found some horrible thing in it there before Halifax and them all! I tell you what, I felt like embracing Halifax on the spot!

"Ethel Watson had unlocked her trunk, but the official only asked her the same questions he had asked me, put his mark on it and passed on to the next. As far as I could see, he only opened three trunks, and those belonged to men! One was Barrington's, a steamer trunk like mine, or rather Mrs. Pancoast's. He looked into it, put his hands under the things it contained, then marked it and continued down the line. As if he could possibly have discovered what might be in it by that! It is all such red tape!

"'Now we are ready,' I heard E. W. remark to Halifax. I was trembling so I could not move, but he egged me on by saying,

"'I shall just see Miss Mortimer to her train, Mrs. Watson. If you will wait a moment, I shall come back and look after you both.' Then to me, 'You only have twenty minutes. Come, we must hurry, if you wish to go on to-night.'

"He attended to everything for me; got the trunk and bag checked, and hurried me to a first-class carriage.

"On our way Lawson, whom I had quite forgotten in the excitement of the trunk ordeal, came running up behind us.

"'I say, Miss Mortimer, you are not going off without saying good-by, are you?' he asked reproachfully, and I felt myself blush like a fool, when I turned to him.

"'No,' I said stupidly, 'I didn't see you. Are you remaining here?'

"'No, I'm going on to the Riviera for a week or so, but I hope you will not forget your promise to drop me a line to the Primrose; or, better still, if I may, I shall write you when I return. Can't you give me your bank address, or something?'

"Of course, I had to say I hadn't any bank address, and when he persisted I told him if he wrote to Cook's, his letter would reach me. He made a note of it and thanked me most impressively, adding in a seductive undertone. 'I shall look forward impatiently to seeing you again. Try not to forget me. May I write to you from the Riviera?'

"I don't know what I answered, for Halifax was waiting a few feet from us, anxiously biting his lip and fearing doubtless that I would lose my train; but I must have granted his request for he thanked me again as we parted.

"Halifax and I were then obliged to positively run, for nearly all the first carriages were full, and there were several persons from the ship in the one we at last discovered with vacant places. He helped me into it, and placed my hand bag in the rack above.

"In spite of my hurry I had noticed Barrington standing near this carriage, with his coat over his arm, and a bag at his feet, and I saw he was watching us.

"'Take a hack at the station,' said Halifax, 'and go to the address I gave you. I am sure you will get a room there at this season.'

"I was thanking him for all his kindness, when a voice back of him said, 'Pardon me!' and Barrington entered!

"He took the seat opposite me, after calmly arranging his things above it, and made some casual remark to no one in particular. Halifax looked at me with a funny expression, and said in an undertone, 'It's too bad we haven't more time.' Then the official came to shut the door.

"'I shall write you when I come on,' said Halifax, 'and if my sister goes to London, I shall tell her to look after you a bit, if you wish.'

"I thanked him, and a moment later the train started.

"Almost immediately Barrington leaned over to me, and said most gently, 'It's a shame you didn't get by a window. If you had allowed me to manage for you, I should have seen that you had a corner seat.'

"'Oh, I am quite comfortable,' I replied, rather surprised he should address me in such a way after our last meeting. 'I don't care in the least about a window.'

"He remained bent toward me, his elbows on his knees, and fingered his cuffs a moment thoughtfully.

"We two were in the middle of the carriage; the other four, with British selfishness, were posted each at a window, and I lived in dread of Barrington seating himself beside me.

"'I want to tell you something, Miss Mortimer,' he said presently, in a mild half-repentant tone, 'You probably think I behaved badly the other night in speaking to you as I did, but I was really beside myself! I didn't realize what I said. You were nice enough to those other fellows, and you treated me shabbily.'

"'I don't see how I did, I was with you much more than with any of the others.'

"'Yes, but you treated me always with suspicion; you refused to give me your address in London.'

"'I haven't any real address to give.'

"'You gave it to Halifax.'"

" 'Did I? You are mistaken. He gave me an address where I shall probably stop.'

"He looked at me curiously, and said 'I thought you told me you were going to friends where you would pay your own expenses.'

"I felt the color rise in my face, and it made me so angry, I replied somewhat curtly.

" 'So I was, but I have lost the address. It was in that telegram which was stolen from my stateroom.' Immediately I realized the stupidity of this, and expected him to press the subject by asking how it was possible I could forget the address of people I knew well, but instead he was thoughtful for a moment, then said:

" 'Oh, well, I was probably too hasty,—that is my curse! I can't control myself when my feelings are wounded. I can only ask you to forgive me, will you?'

"I said, 'I may forgive, but I can't forget the way you spoke. It was something I have never experienced before from any man.'

"After that he was very pleasant, and so gentle and nice I began to feel I had done him an injustice. He did not attempt to sit beside me, and was most careful not to touch again on personal subjects, nor to show, even by a tone or look, any objectionable sentimentality; so we got through the trip quite agreeably.

"When at last the train drew up at Victoria, darkness had lowered and there was a great bustle and crowd, very like that in a New York railway station, only there was not quite such a rush. People go about much more leisurely here, and don't try to walk over each other.

"It was all so new to me, I felt quite dazed, not knowing how to get my luggage, or a cab, or anything, and I was really very glad to have Barrington, especially as he had almost redeemed himself in my opinion. Yet, although I had begun to feel much more confidence in him, and to believe I had allowed my imagination to malign him, I felt a little qualm of uncertainty when he placed me in a cab, and asked for my trunk check. I hesitated, not knowing how to get out of entrusting it to him, and he looked so insulted, and said:

" 'If you are afraid to trust me, I shall call a porter, if you wish. Probably he will be more deserving of your confidence!' And it seemed so awfully ungrateful and cruel, I had to give him the check, whereupon he said,

" 'Thank you. It would have been too much if you had refused me this. I shall be back in a moment, and, if you will permit me, shall see you to your destination. No one ever knows what these London cabmen will do. It isn't safe for a lady to drive here alone at night.'

"This caused me new terror, for I felt dreadfully timid in this great city alone, and all sorts of horrible possibilities immediately formed in my mind, that made me recklessly indifferent to the fact that he would learn my address by accompanying me, and I told him I should be grateful if he came, begging him to hurry back.

" 'I shall,' he replied. 'I'll just have this man move down a little way so we can get the luggage on quickly.' Then he added to the coachman, 'Go down there a bit, my man, will you, to the corner and await me?'

"As the horse started one of those sudden flashes of foreboding I am subject to came over me, which might have been caused by the fact that we were moving out of the light into shadow, and as Barrington closed the door, walking beside the carriage, I asked, 'Why don't you leave your things here, if you are going with me?'

"He appeared not to hear, and saying, 'I shall be back in ten minutes, so don't worry,' turned back toward the station door.

"I leaned out quickly, and called to him so loudly he could not help but hear, and he came back to the door as the cab stopped in a shadowed place.

" 'Why don't you leave those things here in the cab,' I repeated. 'There is no use carrying them in and back.'

"He looked at me and hesitated; then said, as though the idea hadn't occurred to him before, 'Certainly, you're right; there is no need to lug these things about. I'll just get my check out.'

"He set his bag on top of the back wheel, where I couldn't see it, took something out, then placed it and the coat in the cab.'

" 'That was very clever of you,' he said. 'Women are always wise in such matters. Besides, these will serve to insure my return.' He uttered a hard little laugh, that made me feel dreadfully ashamed of my distrust; and when a porter arrived, a few moments later, with my trunk and bag and put them safely on top, I was most remorseful.

"The porter came to the window when he had deposited the luggage, and said,

" 'The gentleman who got your box says he'll be out in a minute, Ma'am; he hasn't traced his yet, and may be kept a bit.'

"I thanked him, and gave him some big English pennies; then leaned back comfortably to wait for Barrington, determined to be particularly nice to him when he returned.

"The moments crept by slowly; other trains came in; people moved in crowds in and out of the station; cabs rolled away, and yet he did not come. I began to feel uneasy, and looked at my watch. Our train got in at five minutes to eight, and it was now nine! Barrington must have been gone three quarters of an hour, allowing twenty minutes to have elapsed while he got me into the cab.

"All sorts of explanations came to me. Perhaps he had lost his temper, and got into a quarrel with one of the officials; he had shown me how quickly he could lose his temper. He might even have been arrested and taken away by another door!

"Then I thought if that were the case he would surely have sent some word to me, and not left me to wait there the whole night. Perhaps he had been too insulted by my doubting his honesty to come back!

"He had proved himself such a strange creature that anything seemed possible, only I thought he would certainly have sent for his coat and bag, as he didn't know where I was going, and would lose them if I went off without him.

"While I was following these conjectures, a gruff voice from outside suddenly broke in upon them, saying, 'I say, lady, is the gentleman coming back or not? I can't wait 'ere all night ye know. It has been an hour and a half now!'

"You can imagine how I felt, there alone with this burly creature getting into a rage! 'I think he will be here in a moment,' I replied putting my hand out the window. 'I don't understand what is keeping him.'

" 'Well I 'spect you'd do better to get out and see, wouldn't ye?' the man answered, and I said, 'Can't you go and see? I am not very familiar with this station.' I didn't want him to know I was a stranger in London, after what Barrington had told me. But he said he couldn't leave his horse, so I had to get out, and no sooner had I done so, than I was seized with deadly terror lest the driver would run off with that blessed trunk!

"Not daring to go out of sight of him, I approached a window looking into the station. There wasn't a soul there but some officials and porters. The one who had brought my trunk to me was not among them, and I knew nothing would be gained by questioning others, as they would never have noticed Barrington in the crowd.

"Well, I was in a dilemma, for it was then nearly ten o'clock, and I was afraid to go, and more afraid to stay. Both seemed equally perilous; but the dread of not being able to get into the house Halifax had directed me to, at so late an hour, made me decide to go. I gave the address to the driver, and sat with my hand on the door handle, ready to spring out if I saw I was being run away with, or anything.

"But how could I tell where the man was taking me? I felt as though I were in a nightmare! The streets appeared interminable, and some of them were so dark and silent they seemed reeking with crime.

"Never shall I forget the impression that first ride in London made upon me. The very sound of the horses' feet echoing against those black and gloomy buildings seemed ominous with horrible possibilities; I imagined I was driving through the labyrinthine alleys of Whitechapel, and expected every moment to have the cab pull up before one of the hushed and somber houses that had the air of murderers' dens, where a person could be hidden for months, or killed and buried in the cellar, never to be heard of again!

"As you know, girls, I am pretty courageous, but I tell you it would not have taken very much then to have made me shrick out in cowardly fright. I was so palsied with apprehension I didn't even think of Barrington, or wonder what had become of him, and not until we turned into a wider street where there was plenty of light, people, and nice strong natty-looking policemen, did I dare to sit back, and take my foot and hand from the door.

"It was half-past eleven when I arrived at the Queen Anne Street house, and there, my dears, a new difficulty confronted me! Fortunately the people were still up, and I did not have to wait long at the door; but the landlady, to whom I gave Halifax's note, told me she had not a square foot of room in her house. There was a big affair of some sort going on, that had brought shoals of people to London, and every house she knew of, but one, was full. The one exception was this house in Chelsea, which is kept by her sister. She gave me a note to her, and told me if the people had gone to bed to keep on ringing until they let me in. I asked her if there was any danger in my driving alone at that time of night, and she assured me there was not; but I went through another miserable half hour, being carried through more black, narrow streets, and for what seemed like endless miles up King's Road.

"When we turned off from this into a street where there was not a living soul in sight, there suddenly appeared at the cab window an awful-looking man's head and face.

"I shrank back and shrieked; then I heard a voice say, 'Don't be scared, Miss! I hain't goin' to 'urt ye! Di ye want yer box lifted?'

"I did not understand what he meant at once, so did not answer, and he ran beside the carriage, until we drew up before the most gloomy-looking house I ever saw, with large black pillars and portico, like the entrance to a huge tomb.

"There was a light in one of the front windows, and when I rapped with the knocker,—the only means of summoning someone I could see in the dark,—a thin, irritable-looking woman opened the door, and asked crabbedly what I wanted. Her manner changed, however, when I gave her the note I had, and she bade the man who had followed me to carry my things up to a fourth story back room which reminded me of our lovely apartments in New York!

"The cabman stuck me twelve shillings, but I didn't care; I was so glad to find myself at last safely housed.

"But, my dears, the worst of the whole day was yet to come.

"When the landlady had left me, and I was preparing to get to bed as quickly as possible, my eyes strayed involuntarily to the steamer trunk which had been set at one side of the room, and then I noticed with horror something I had not seen in the dark! It was light gray, while, as you know, the one Mrs. Pancoast entrusted to me was yellow!"

"Good Heavens!" ejaculated Edith. "He had stolen the trunk."

Mary was looking for the next page, her hands trembling violently as she fingered the closely written paper. "Wait, we shall see." she said with suppressed excitement. "Poor girl! Where is that other page? —Number twenty!"

"Here it is," said Edith, bending to the floor where the missing page had fallen. "Read quickly, I am wild with suspense."

Having secured the missing page, Mary continued to read rapidly:

"Well girls, I simply sat still and stared! I felt benumbed, morally and physically. I could scarcely grasp the truth of what I saw, and it seemed as if the trunk had been miraculously changed there before my very eyes. Probably I am very stupid, but the idea that Barrington had done such a thing as exchange his trunk for mine, never entered my head. I had seen it placed on the cab, and as they were both light in color, it was impossible to discern the difference there in the gloom. Then I understood why he had ordered the cab away from the light! It was a deep-laid, diabolical scheme, and I had fallen into it like a blind rat!

When I began to come to from the shock, I got down on my knees and examined the trunk carefully. There were his initials painted on the end—G. B. and a paper bearing the number of his stateroom. In every particular, except the color, it was the exact fac-simile of Mrs. Pancoast's; that is, an ordinary moderate-priced steamer trunk, so you see it was not so extraordinary that I was deceived by it in the dark.

"Oh, my dears, never have I spent such a night as that! I sat on the floor beside that trunk for hours, simply incapable of forming any plan of action, and realizing with helpless misery the seriousness of my position. It was deadly to be there in that strange house, with everyone asleep, and knowing there was not a soul in the whole of London I could look to for help.

"A huge clock-bell, somewhere near, tolled out the hours, half hours, and quarter hours, so loudly and with such a resounding echo my blood seemed to freeze every time it sounded, and numberless other clocks answered it, until the night vibrated with bells of diverse tones, gradually diminishing into distance.

"When I became accustomed to this, it made me feel less lonely, and by the time four o'clock struck, I was sufficiently calm to get up and open Barrington's bag.

"Never have I felt so like a thief and an adventuress as I did in that moment! It was ghastly! But I hoped I might find something by which he could be traced, although he was probably already far away from England, or would be by the time I could do anything. There was nothing in the bag but a nightshirt, brush and comb, razors, some other toilet articles, a brandy flask, and a small safety revolver. Fortunately I had unpacked the bag carefully, for if I had dragged that thing out, it might have gone off and shot me, for it was loaded in every chamber. It was strange he should have carried it about like that, without a case, but I suppose a man of his character always has a pistol ready for any emergency.

"As there was nothing that would serve me in any way, I put the things back as I had found them; then examined the pockets of his coat. Imagine me, my dears, the daughter of a gentleman, going through the pockets of a man I had known five days! It was a revolting thing to do, but I am getting gradually hardened, and after the first dive, I continued quite callously.

"My search was rewarded by finding in the inside pocket,—what do you think?—the telegram that had been stolen from my stateroom, and three letters! The letters were typewritten, and all short but one which was merely a lot of business statistics. Two of them were addressed to G. M. de R. Herald, the third to George Barrington, Esq. S. S. 'Cedric.'

"The last was short, postmarked Chicago and was as follows, without heading:

" 'All is going well in C. Hold to your present plans, and cable me particulars in cipher when you land. I have attended to everything. Oscar is in California sails the eighth of October for Japan, where I understand S. L. is to meet him. However, as you have stopped her, their plans may be changed. I shall keep a keen look out and advise you by cable to Harry's place, 32 Strand. Don't lose his address, as it is the only safe one I know of. I am sending this by my boy Warner, so it may be delivered into your hands. Here are the facts you want: Third floor, forty Champs Elysee, right hand closet library, back of dining-room. Right twenty-five, left sixteen, right nineteen; left four, right ten, left three, right thirty and thirty-two, press, turn three right, pull, turn one left. Be sure to cable me where you are in London, and when you go to Paris.

" 'So long, and good luck to you!

" 'W. F.'

"The third letter was this, if you can make anything out of it:

" 'Write all circumstances here. Get impression right leg. Order nitrogen. Beware of aggravating rheumatic decrepitude. Cable instantly rough deductions either case. No amount may exceed demands. Note every little emotional heaving. Remark every minutest indication toward relapse or melancholy.'

"This also is typewritten, and devoid both of heading and signature. I can't see what it can mean, unless, if it was originally intended for Barrington, he may be acting as a doctor's assistant, and this letter is to direct him to carry out certain orders. But I hardly think this can be so, and from what I know of the man I believe the words contain some secret significance which he has arranged with the person who wrote it. You two study it, and see what you can make out of it. I have pondered over it for hours, but as I have never before had to play the part of detective, have failed to solve the hidden meaning. All the advantage I obtained from rifling Barrington's pockets was the address on Mrs. Pancoast's telegram, R. B. Ridgeway, St. James Building, Broadway.

"I had my suspicions that this might not be a real address, for as you may remember, I didn't believe that telegram had been sent by wire; but, being in despair what to do, I clutched at the straw it offered, and determined to send her a cable in the morning. By the time I came to this decision, it was seven o'clock, and the roar of awakened Lon-

[CONTINUED ON PAGE 26]

A FLASH of TEMPER

By Frank H. Sweet.

How it happened Stephen Lee could never quite explain. People who fly into a rage seldom can account for their actions. Overcome with horror, pale and speechless, holding the still smoking revolver in his hand, he stood gazing at the dead Indian.

The boy exclaimed frantically as soon as he could speak, "I never meant to do it—never, never!"

It took place one day in early spring in the New Mexico supply-store which Steve's father kept near an Indian reservation. A crowd of the red men had lounged about the door all the morning, while their squaws were bickering within over purchases.

One young Apache had been hanging about Steve for an hour or more, trying to buy a revolver for half its price, and that, too, by trading for it a cantankerous little "calico" bronco which no one could ride. He seemed obstinately determined to effect the trade, and was growing angry over it. When the fatal moment came he had taken hold of the weapon with one hand and of Steve with the other, in a threatening manner.

Steve's violent temper flashed up like fire, in a moment. He gave the pistol a jerk and its contents were discharged into the Indian's side. Without so much as a groan the Indian sank to the dirt floor of the little frontier store.

In a moment the store was full of Indians, some of whom were howling with grief and the others loudly threatening revenge.

The entire white population of the little settlement soon gathered, and everything in the people's power was done to bring back the life of the unfortunate Apache, but without avail.

Nothing that Steve could say in self-defense was satisfactory to the infuriated Indians. His father pleaded his innocence of any evil intent with pathetic earnestness, going from one Indian to another and trying to explain to them that the revolver went off accidentally.

"No, no!" they replied, with horrible grimaces of incredulity. "No *bueno!* No good!"

While they were engaged in the ceremony of burial, which took place at once, Steve's pale-faced, delicate little mother slipped noiselessly around the corner to where he stood. She touched his arm with trembling fingers, and whispered, "Come quick, my boy!"

At the sound of her voice, hardly comprehending her words, Steve turned and followed her to the kitchen in the rear of the store. Hastily lifting some boards in the floor which covered a hole in the ground, in which potatoes and other edibles were kept, she whispered, "Get down, Stevie! Make haste!" and when he was safely in the hole she replaced the boards and pulled the table over them.

The burial completed, with sundry wild ceremonies, the crowd of Indians, including the dead man's two mourning widows, mounted their ponies and rode over to the store.

Steve could hear them from his hiding-place, and he shivered with fear when he recognized Chief Severo Tiando's voice in a fierce demand that he at once be turned over to the dead Indian's tribe for justice.

Mr. Lee parleyed with them in vain; and Steve's mother went out and pleaded for her boy as only a mother can—all to no purpose. Repeating their demands and making threats, the Indians wheeled and rode away in the direction of their village, perhaps six miles away.

"There is not a moment to lose," said Mrs. Lee. "Stevie must get away as quickly as possible. It is nearly sundown now, and they may be back to-night."

The boards in the floor were lifted, and Steve scrambled out. Though he entered slowly into the hurried preparations, a horse was soon waiting at the door.

As he stood beside it, doubtfully, his mother hastened out to him with a bundle of bread and meat. Then with passionate decision Steve said, "I ain't going to leave you, mother! I'll stay and fight it out with the rest of you." He turned back to the house with an air of manly resolution.

"No, Steve," his father answered. "We shall be safer without you. The best thing for us all is for you to cut out just as soon as you can. If they come and don't find you they'll hunt for you. Go, and don't stop until you make Uncle Hiram's ranch at Bloomfield. Oh, my boy! What will that hot temper of yours bring you to yet?"

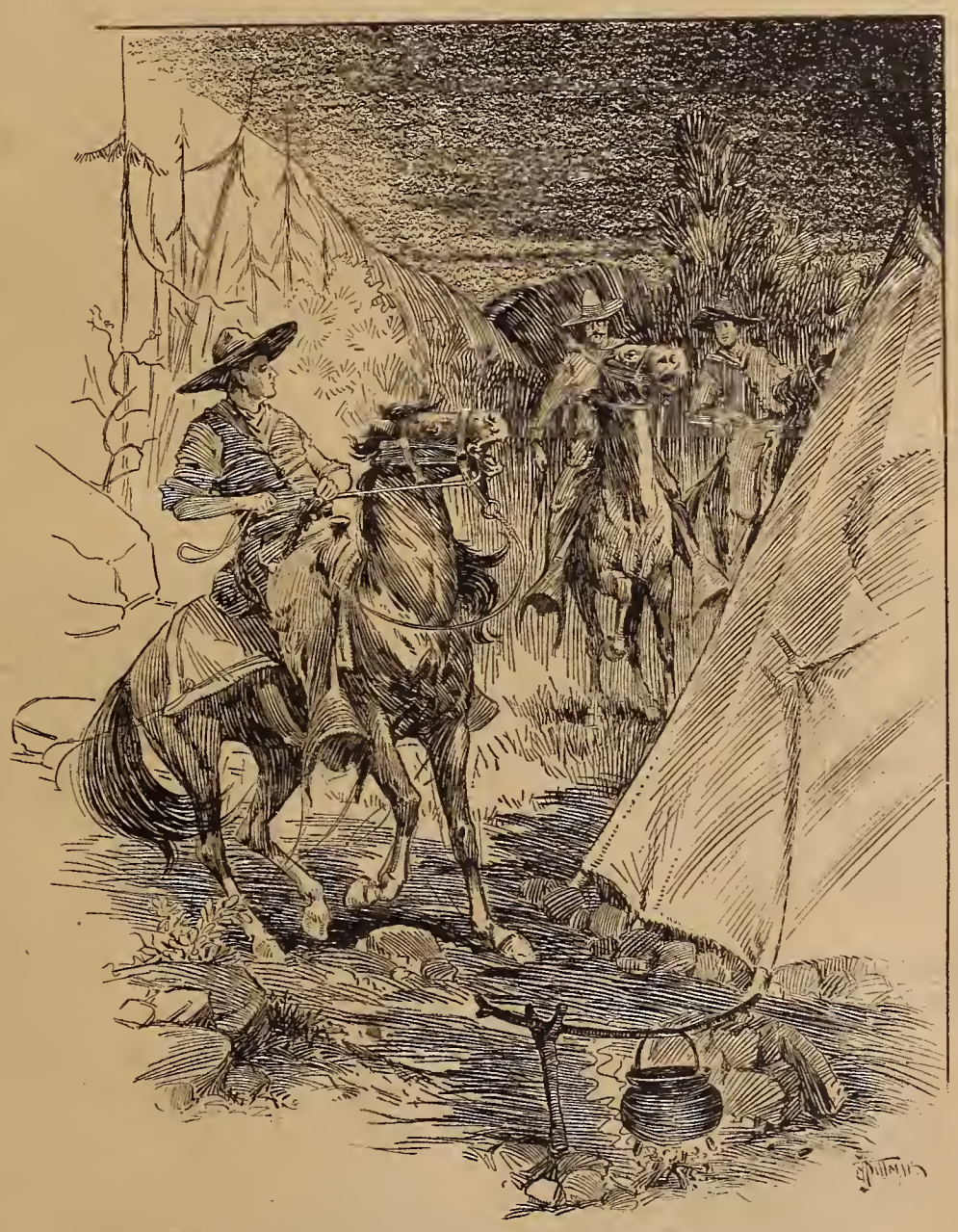
Steve saw tears in his father's eyes, and could not speak. He could only hold out a repentant hand to the sorrowing man. Without a word he now put the luncheon into his saddle-bag. His mother kissed him, tremblingly. She did not dare to say good-by, or even good-night. Steve sprang into the saddle and rode off. His route lay to the eastward, while the Indian village was to the westward. He could reasonably hope to keep clear of Indian pursuers; but he had a long twenty-miles' ride before him. It was nearly midnight when, tired and hungry, he let down the bars into the enclosure of old Hiram Norcross, who was "uncle" to all the settlers roundabout.

Though he was not related to Steve's father, Norcross and Lee had been companions back in Massachusetts; and Steve felt as much at home as if "Uncle Hiram's" family had been knit to him by ties of blood.

"It's bad business," said Norcross, gravely, when he had heard the boy's story, "an I'm 'fraid o' the consequences."

"You don't think that father an' mother an' the children are in danger on account o' me, do you?" Steve asked, turning pale at the thought.

"Wal, not jist yit," replied the old man seriously, stirring the half-dead embers in the big fireplace. "No; they're safe enough for to-night, an' we'll talk the matter over to-morrow. The fust thing, them Injuns 'll be wantin' a ransom. They won't do any killin' till they find out they ain't goin' to be bought off. I guess you kin turn in with Jake up in the loft."



"Steve's heart stood still with terror, now that the supreme moment of self-sacrifice had arrived"

Uncle Hiram was richer in uncultivated acres and boys and girls than in any other commodity. Like Steve's father, and nearly everyone else in that part of New Mexico, he had no ready money. The events of the morning weighed heavily upon Steve that night, and it was long before he could sleep for thinking of those at home. Would they be murdered in their beds? When he fell asleep he dreamed of massacres. He was awakened from a heavy morning slumber by a long, intense ray of light in the roof, pointing at him—directly at him—as if it were some condemning messenger. Next, the half-dressed boys all clustered around him, and his dreadful story had to be repeated.

At breakfast Steve could not eat, and his heavy eyes and evident terrible anxiety touched old Uncle Hiram's heart.

"What do ye say to my sendin' Jake an' Dave down to the settlement to see how things are goin'?" he asked kindly. Jake and Dave were the oldest boys.

"Oh, if you would, Uncle Hiram!" exclaimed Steve. As soon as the chores were done, Uncle Hiram's sturdy pioneer boys started out.

Steve watched them off with a thankful heart. But then there was all that day and night to wait for the return; and life was well-nigh intolerable to the lad all the time, busy himself as he would about the ranch.

In the evening he thought to divert his mind with a book; but the first volume he touched on the dusty kitchen mantel was the story of Daniel Boone. The frontispiece of the book was the picture of a burning frontier home; little children were gathered about the knees of a woman, over whose head a savage was holding a tomahawk.

Sick with fear, Steve threw down the book and crept up the ladder to bed. How he spent this wretched second night he could not have told, but it was not all in sleep.

The boys brought word the next afternoon that all was safe as yet, but that the Indians threatened trouble, and that he, Steve, must keep very close.

"Then am I the only one in danger?" Steve exclaimed, with great relief.

"Not so sure about that," answered Jake, pausing between sentences to loosen the cinches of his saddle. "You've come a valuable chap all of a sudden, Steve. The Indians say they've got to have you, or else two hundred dollars or else a row. We met Colonel Tom Burns' man over in the gulch, and he says the colonel is mightily worked up over the prospect. Says that, with all his cattle an' sheep, an Indian war would lay him out."

Poor Steve! His cheeks paled, and he leaned over the fence for support. He knew that his family could no more raise two hundred dollars than they could raise crops on their arid, unwatered land. Then would come the "row!"

"What does it mean, Uncle Hiram?" he asked, as the kindly old ranchman came hurrying down to the corral.

"Well, Steve, it means mischief. If they can't get you, an' there's no money in sight, why, they'll take it out o' the settlers—your family, maybe—the first chance they get. It's a bad business; an' I tell ye, boys, this thing o' havin' firearms so handy is a dangerous practise."

"I'll never touch a gun as long as I live!" Steve burst out with a sob.

"Well, Steve, my boy, take your medicine, an' let it do ye good. That's the only way now. There's nothin' for your folks to do but to watch out, an' we'll hope there won't nothin' bloody come from it."

Stephen stood a moment in silence, picking bark off a log fence, his mind in a tumult.

"There wouldn't be any danger if they would get the money, or—had me, do you think, Uncle Hi?" he asked slowly, still keeping his eyes on the resinous bark.

"Oh, no; I don't reckon they want to fight jest now for the fun on't; but ye see, Steve, your folks can't raise no two hundred dollars. The only way to do is to look at the best side of the case. Eternal vigilance is you an' your folk's business from now on."

Steve stood an instant longer. Then he walked slowly to the house and climbed the garret ladder. To be safe himself, he the cause of all the trouble—and to know that his father and mother, baby Madge, and happy, boisterous Pete, were in hourly jeopardy from the murderous savages!

Whichever way the poor boy looked, there was no relief to be found. He tried to reason away his fears; but there came always that dreadful Daniel Boone picture to meet every argument—the gentle mother under the ax, the little sister carried away into captivity—Madge, dear little innocent sister! By this time Steve had worked himself into such a panic that he was convinced that his family would be massacred that night.

Could he get there in time? he wondered, as he saw the sun slowly working down toward the western horizon. He had resolved to give himself up.

He rose quickly when the resolution was finally formed—afraid of his own weakness—and went down the ladder.

The first moment that the barnyard was vacated he slipped down to the corral, mounted his horse and rode away. For the first few miles he went at a furious pace, and gave himself no time for reflection; but as he neared the Indian village he drew rein, and went stealthily through the thick pinon forest. The awfulness of his errand began to prey upon his mind.

What would they do with him? he asked himself. Kill him they surely would; but he had heard of tortures, of mutilating and the stake!

He shuddered and drew back, trembling, from the horrible prospect. The movement of a bird in the trees above him made him cringe with abject fear. Instinctively he felt down in his saddle-bags for a revolver, and his hand touched something that gave him inspiration. It was crumbs of bread from his mother's hand. After that he did not think of turning back.

Riding along as fast as he could, in the now dense darkness, he reached a hill overlooking the Indian tepees below, and could see the smoldering camp-fires.

It seemed very still. Not a living thing could be seen. Steve did not realize the lateness of the hour, and he began to wonder where all his red enemies were.

As he reached the open space just opposite the Indian village he came suddenly upon several horsemen riding toward the nearest tepee.

Steve's heart stood still with terror, now that the supreme moment of self-sacrifice had arrived. Life was very dear to his young heart. But with one backward glance toward home, and an upward look to God, he rode bravely forward.

The next moment a voice rang out cheerily—a voice that he knew well: *"Como le va muchacho?"*

It was Colonel Tom Burns' man, Hank Fischer. Steve's heart leaped up. *"Como le va* yourself, Hank," he called back. His voice trembled with excitement.

"You, Steve Lee! What are you doing here?"

"Come to give myself up, Hank. I'd rather die than live any longer and feel all the time that somebody was being killed in my place."

[CONCLUDED ON PAGE 30]

Famous Bits of History

Decatur

Just a little more than a century ago, or in October of the year 1803, a gale on the Mediterranean blew a United States vessel from her moorings outside the bay of Tripoli, and so began a series of events which culminated in what Lord Nelson called "the most bold and daring act of the age." The vessel was the United States frigate "Philadelphia," commanded by William Bainbridge.

In the early days of the nineteenth century the small states on the north coast of Africa, egged on by England, had been preying upon the United States merchantvessels. An American fleet was sent to the Mediterranean to compel peace, but the Bashaw of Tripoli refused to treat. After an engagement in which the United States vessel "Enterprise" captured the corsair Tripoli, the Americans instituted a blockade of the city. In October, 1803, the "Philadelphia" was the chief vessel outside the port. It was on the morning of the thirty-first that the gale which broke her anchor occurred, and as she was finding her way back she sighted a Barbary pirate. Bainbridge promptly gave chase, but the pirate captain had the advantage. He knew the waters as he knew the palm of his own hand, while his adversary had very inaccurate charts. The result for Bainbridge was disastrous. The little vessel led the frigate into dangerous shallows. Under full sail the man-of-war was drawing near her prey, when she struck a reef, and stuck fast. Anchors and guns were thrown overboard to lighten her, even her foremast was cut away, but no effort to float her availed.

Seeing the frigate helpless, the Tripolitan gunboats appeared, and hovered around like vultures about a fallen lion. Defense was useless. Bainbridge bored holes in his ship's bottom, flooded her magazine, and then three hundred and fifteen American sailors surrendered, to find a home in Moorish dungeons. The industrious Tripolitans went to work, floated the "Philadelphia," replaced the guns and rigging, and the American sailors had the chagrin of seeing the thirty-six-gun frigate added to the force of their enemy and anchored in the harbor of Tripoli. But if the sailors were in dungeons, they were not overawed. Bainbridge managed to send a letter to the American fleet, suggesting that the "Philadelphia" be destroyed at her anchorage.

For the execution of a bold idea you must have a bold man, and this one appeared in Stephen Decatur, Jr., a lieutenant in the navy and the commander of the schooner "Enterprise." In December, 1803, he had captured a Tripolitan ketch, which had been taken in the United States service and named the "Intrepid." With this ketch, which would pass for a friendly vessel, Decatur, with a picked crew, proposed to enter the harbor of Tripoli by night, set the "Philadelphia" on fire before the Tripolitans were aware of his presence, and then if possible escape from the guns of the fort.

The plan was approved by Commodore Preble, then in command of the Mediterranean Squadron. With his little ketch manned by seventy-four men and a Maltese pilot, Decatur sailed in February, 1804, accompanied by the brig "Siren." Off Tripoli they encountered bad weather, but on the sixteenth of the month they prepared to put their plan into execution. The crew was divided into five watches; four were to take possession of and fire the frigate, while one was to guard the ketch.

It was a white night; the moon silvered the walls of the Moorish city, and lights winked from the shipping as the "Intrepid," borne along by a faint, almost dying breeze, sailed boldly into the harbor. Above decks there was no sign of life, but if one looked sharply one could see in the shadows of the bulwarks the forms of men stretched out and waiting.

Among the vessels anchored about the city's walls loomed the massive hulk of the "Philadelphia." Lights blazed from her ports. Very slowly the innocent-looking ketch crept toward her. The Americans intended, if possible, to foul her and board before their enemies discovered their intention. But as she came within hailing-distance there was a call from the frigate. The Maltese pilot answered, and explained that the ketch had lost her moorings and wished to make fast to the "Philadelphia's" cables. All the time of the parley he held the "Intrepid" on her course. Little by little the distance between the two vessels narrowed. Sailors crowded around the rail of the "Philadelphia," and peered at the oncoming boat. To heighten the suspense, the wind suddenly failed and the ketch swung around. Decatur sent a boat manned by disguised sailors to make a warp fast to the bow of the man-of-war. The Tripolitans also sent a stern line to the ketch, which was taken by the Americans without their being discovered. All the while they were hauling on the bow line, and the ketch was gradually nearing the frigate. Every minute the waiting men expected to be discovered, but still they crouched, for the minutes were precious to them. At last it came. A man on the rail of the "Philadelphia" caught sight of the figures in the shadow, and gave the alarm. The cry was taken up all over the frigate, "The Americans! The Americans!"

Instantly the deck of the "Intrepid" was alive with moving figures. From every shadow, from every hatchway, armed men sprang into the light. A few put off in small boats; others dragged at the lines. The Tripolitans jumped into the chains, and cut the one at the bow, but the act came too late. The ketch was now in contact with the frigate, and with the shout "Boarders away!" Decatur, followed by a few of his men, leaped on board the "Philadelphia." The ketch veered off a minute later, but more boarders from the boats followed their commander to the frigate's deck. Cutlasses gleamed in the pale moonlight, and for a little the only sound was the sharp tread of running men and the exchange of blows. First the after deck was cleared, and then the sailors started forward. Again the only sounds were the stinging hiss of steel and the thud of falling bodies as the sailors overbore their enemies. The Tripolitans fled frightened before the grim onslaught; they hid below or jumped into the sea.

All this time the anxious watchers on the "Siren" had their eyes bent on the dim harbor. Suddenly a single rocket burnt a red path across the heavens. It told the "Siren's" people that the "Philadelphia" had been captured, and Lieutenant Stewart immediately sent boats to assist in towing the "Intrepid" out of the harbor. But the rocket also alarmed the city. The boarders had to complete their work of destruction quickly. In less time than it takes to write it the ship was fired in a dozen places. Even before the crew had left the vessel flames burst out of the port-holes and hatches. The entire work of taking and firing the frigate had occupied less than thirty minutes. With poles and oars the Americans strove to push away from the doomed vessel, up whose rigging the tongues of red flame were already leaping. There was imminent danger of the ketch catching fire. Suddenly some one discovered that the stern line was fast. It was cut, and the little vessel got away. As they pulled heavily out of the harbor they were met by the boats from the "Siren," which made fast to the "Intrepid," and under the efforts of all the oarsmen she moved more rapidly away. But by now the whole bay was lighted by the burning frigate, and shots from the forts began to patter around the ketch. The oarsmen strained every nerve to get into the shadow and safety, but every minute the circle of light widened. The flames on the frigate leaped masthigh; she became a hill of fire; her guns, heated to the danger-point, began to explode, and at last, as the fire reached the magazine, there was one terrific shock—the whole of the vessel was rent in twain, fiery timbers and ropes shot into the sky as from a gigantic flower-pot, and the great ship was engulfed just as the little ketch glided into safety beyond the enemy's guns.

Only one American was wounded, and not a life was lost. Decatur, who at that time was only twenty-four years old, was made captain, and presented with a sword by Congress. The exploit served to bring him into prominence, and during the future wars with the Moors and in the War of 1812 he became one of the most famous commanders of the American navy.

The picture below is the first of a series of paintings of picturesque events of American history that will be printed in FARM AND FIRESIDE, together with full descriptive text.

Painted by E. Hering

DECATUR CUTTING OUT THE "PHILADELPHIA"

The Farmer Boy and the City

By J. L. Harbour

Some years ago Dr. Charles Parkhurst, the eminent New York minister, wrote an article in regard to country boys forsaking the farm for the city that had so much good sound sense in it that I cut it out, feeling sure that it would "come handy" at some time in my work. That time has arrived, and here it is:

"In a general way, I am inclined to discourage any boy from coming to the city, and especially the average youth, against whom the odds of getting on are very great and becoming greater. We need the extraordinary man, but the country towns and districts need him just as much, and the average man has two chances in the country to one here. There are, of course, many more opportunities here, but for each one of them there are ten applicants. The difference in the cost of living overbalances the difference in the wages, and so it is harder to save a dollar here than in the country. Competition grows fiercer and fiercer, and this competition, instead of developing initiative, is destroying it in the minds of thousands of men, and making nothing better than human machines of them. As the bank or the shop grows larger, the men with only one idea, the ability to do one thing only, increases. We are increasing the cogs and not the wheels."

There is so much truth, so much good sound sense in these words that all country boys who are determined to forsake the farm and come to the city should ponder them well. Especially is it true that this is the age of the specialist in the city, a fact that makes it very difficult for the average untrained boy to hope to make much advancement in the city. And his chances are lessened when he comes to the city without money, without friends, and without that somewhat vague but often forceful thing we call "influence" to help him on toward the goal of his desire. To this some country boy may say:

"Didn't Marshall Field leave his home in the country in New Hampshire and go to Chicago and become one of the richest men in the world, didn't he?"

He did—fifty years ago—when conditions were widely different from all that they are in our day. Then it is certain that he had inherent and exceptional gifts as a business man, gifts that not one boy in a thousand possesses. He had opportunities such as are not common now as they were then. One hears a great deal about the enormously successful men of the world, but what of the thousands of boys who go from the country to the city and who do not achieve success? What of the great army of clerks and other men in our large cities who have gone from the country to the city to achieve fame and fortune and who have utterly failed to achieve either? There are thousands of men in middle life clerking in stores in the large cities, and receiving not more than ten dollars a week for their services, and living under conditions far less wholesome and healthful than the farmer boy knows in his country home. He has, it is true, more time in which to do anything that he pleases, but the pleasures of a city are expensive, and ten or even fifteen dollars a week allow a very small margin for pleasure if one lives respectably and dresses as a clerk is required to dress in many places.

But no amount of argument and no array of facts can prevent a large number of country boys from deserting the farm and hieing away to the city to "work their way up," as other boys have done. The boy who is determined to do this should have as thorough a knowledge as possible of what is before him, and it is essential that he should leave home with a very large stock of courage and money, and clothes enough to present a good appearance while he is looking for the position he fancies it will be easy for him to find in the city, but which he will find is wonderfully elusive when he goes in pursuit of it. Actual experiences will open his eyes to a great many facts of which he is quite in ignorance in his country home. He will come across a great many "eye-openers" in the city, and I miss my guess if some of them do not cause him to long for the old farm. He will discover that there are many applicants for every position, and that many young fellows just as alert as he is are working for four or five dollars a week in positions in which the opportunities of "working up" are very limited. There appeared within a year or two a very interesting book entitled "The Long Day," in which the author gives an account of her experiences trying to secure work in the city after she had left her home in the country. Although she was a young woman her experiences were very similar to those experienced by many young fellows when they fare from the farm to the city, and the reading of this book might cause many a young fellow eager to get to the city to feel that he would do well to remain in the peaceful environment of his country home. Any young fellow going from the country to the city without friends, without influence, and with but little money, would be likely to have some of the harrowing experiences this young woman had in securing a position. Boys from sixteen to twenty years of age, thousands of them, are working for from four to six dollars a week in all our large cities, and paying sixty cents of this small sum for car-fares while going to and from their work. The result is that they are insufficiently clothed and fed, and are housed under the most unhealthful conditions. Harrowing indeed are the o'ertrue tales to be told of the experiences of boys who have grown "sick and tired" of the farm, and have left it to try their fortunes in the great cities in which they have speedily failed to realize the high hopes that animated them when they left home.

A business man in the city of Boston told me one day last spring that he put an advertisement in one of the morning papers, offering a position at four dollars a week to a boy of from sixteen to eighteen years of age. During the day no less than one hundred and twenty applicants for the position came to his place of business, and some of them were twenty-one years of age. The boy who goes from the country to the city should understand that there are a great many applicants for every desirable position, and that necessity compels many boys and men to apply for even the undesirable positions—in which the hours of labor are long and the work hard.

The old adage that "there is room at the top" is as true to-day as ever it was, but it takes a mighty struggle to reach the top in these days of fierce competition, and there will not be much time for play in the lives of those who are trying to reach the top. The fact also remains that there are a great many positions in which there is no opportunity for advancement. This is true of hundreds of positions requiring only the unskilled laborer to fill them. I know a man who has been running an elevator for seven years at a wage of seven dollars a week. He will receive no more if he runs that elevator for seven more years. He cannot be advanced to any other position, because the elevator is in a factory in which all the employees must know how to do certain kinds of work of which he knows nothing.

A boy's chances of "working up" are better in some kind of a great mercantile house if he develops real business ability and attends strictly to business. He must get rid of the idea that when he goes from the farm to the city that he is going to have a jolly good time and at the same time "work up" to a fine position. There are sharp-eyed and exacting superintendents and foremen and heads of departments and others in authority in all great establishments who are steadily taking note of how employees are doing their work, and seeing to it that they attend strictly to business. A great many business firms are eager to discover traits of exceptional business ability in the young men in their employ, and the promising young fellow will be looked upon with special favor. If he deserves advancement he will be likely to receive it, and it is true enough that some of the partners of our greatest mercantile institutions began as errand-boys and "worked up" step by step; but when the whole story is told the fact is revealed that they worked hard and faithfully, and were gifted with unusual business ability. No farmer boy ever worked any harder than they worked, and they were not carried away by the allurements of the city to the extent of spending all their earnings. They fought shy of the "riotous living" that wastes both time, money and strength, and unfits a young fellow for the actual work of life.

The failure of many a boy who has gone from the country to the city can be attributed to the fact that he has been unable to withstand the temptations and the alluring attractions of the city, and he often makes a mistake at the very beginning by an ill choice of associates. One who has made a study of this really serious question of the country boy in the city gives some excellent advice when he says: "The first thing for a boy coming to a great city to do is to take pains to start with right associations. In every such city there are innumerable circles of society. The community is too large for everybody to know everybody else, and therefore it divides up into many circles of common acquaintances, and in each of these the members are as well known to one another as are the inhabitants of a village. They are good and bad, evil in their influences, and injurious in their tone and spirit, or salutary and helpful."

The country boy's future weal or woe when he goes to the city will depend much on the associations he forms. Some employers have a way of quietly investigating the conduct of their employees outside of working hours. A boy may feel that it is "nobody's business what he does outside of working hours," and that he has the right to associate with whom he chooses. This is true enough in a certain sense, but it is also true that a boy's character is sure to be affected for good or for evil by his associates, and if he is being influenced for evil he is making himself undesirable and untrustworthy as an employee, and his employer has a perfect right to inform himself regarding the character of any of his employees. He is simply protecting his own business interests by doing this. Another bit of excellent advice is given by someone who says of the boy going from the country to the city:

"He must brace up his courage as if he were going into battle, for he is sure to have a fight for it, and he will need all his moral fortitude to stand out against the temptations which will wreck his career beyond peradventure if he yields to them. What he seeks he cannot get except in the fierce competition which results from the struggle of many thousands to obtain the same prize. If he slips there are multitudes around him to take advantage of his mischance and to leave him far behind in the chase. He must keep himself always in training, both moral and physical, and waste none of his resources. He will require every bit of his energy, and every atom of principle in him will be put to the test. He must be prepared to help himself, for he will get very little help from anyone else."

That is true enough. A boy coming from the country to the city must be self-reliant from the very start, and while it is not true that there is none of the milk of human kindness left in the world, he should know where to find it in the city. One place in which he is likely to meet with real kindliness and friendliness is at the Young Men's Christian Association. This organization has given a helping hand to thousands of young fellows who have gone from the country to the city. It has secured positions for many of them, and has given them much-needed advice in regard to respectable and inexpensive boarding-houses. Indeed, if a young fellow goes as a stranger to a great city he cannot do better than to go at once to the Y. M. C. A. and state his exact circumstances. He will derive a thousand times more benefit from a membership in an organization of this kind than it will be possible for him to derive from membership in any of the societies or clubs formed for mere pleasure in the cities. And he will be wise if he becomes a regular attendant at church and makes the acquaintance of the pastor. The friends he will make in the church will be safe friends, and he will do well to join some of the splendidly organized classes for young men now so common in our city Sunday-schools. There are also clubs for young men in many of the city churches. These clubs offer a good deal of pleasant social life to their members, and the Y. M. C. A offers social life, entertainment, books, magazines, papers, swimming-pools, gymnasiums, education and the most helpful of influences to its members. The boy who wants to "start right" when he goes to the city cannot do better than to at once surround himself with good Christian influences, such as he will find in the church and the Y. M. C. A. Nor can he do worse than to ignore these influences and fall in with those on mere pleasure bent. Let him by all means fight shy

[CONCLUDED ON PAGE 30]

The Puzzler

The Names of Six Members of the United States Senate Will be Found Cleverly Veiled in the Pictures Below

Answers to Puzzles in the November 15th Issue: Cranberries, Butter, Pumpkin, Mince, Potatoes, Woodchuck

The Farmer in California

By H. A. Crafts

To describe California farm-life in a single article would he nigh impossihle, for California is so vast in extent, and her surface, her climate and her resources are so varied that to do justice to all parts of her territory and to all phases of her industrial life would require unusual literary ability, as well as a very large amount of printed space.

Farm-life in California, from its very nature, cannot be generalized as can the farm-life of any other part of the country; for in truth it is very largely specialized in its inherent character. South of the Tehachapi range is the great citrus belt, where are raised year by year California's great orange and lemon crops, 30,000 car-loads of which fruits are annually shipped to the East, to say nothing about the amount required to supply the California home trade and the trade of the Pacific Coast.

North of the Tehachapi we enter the great San Joaquin valley that stretches northward, fair and levcl as a prairie for three hundred miles with the gigantic Sierra Nevada range, stretching all up and down its eastern border, while hounding its western confines the coast range stands, less imposing, yet beautiful withal, with its dark green wooded slopes running far northward even to San Pablo Bay.

North of the San Joaquin comes the Sacramento Valley which, according to the estimate of Prof. Elwood Mead, government irrigation expert, has an area of arahle land and a water supply, which if developed to their full capacity, would alone be sufficient to support in comfort, if not affluence, a population of five millions of people. Eastward also from the Sacramento Valley is the great range of the Sierras, and all through the western slope of these mountains are innumerable valleys containing large areas of excellent farming lands and possessing a climate extremely favorable to agricultural pursuits.

Then there is the great coast country, stretching up and down the rolling Pacific for a thousand miles; a vast strip of mountain valley, bay and river, forest and stream, containing no end of fertile farming land on both mountain and plain. The south has its arid climate. The southern extremity of the San Joaquin Valley has an average annual rainfall of only five inches, while that of its northern extremity lying centrally of the state has one not to exceed twelve inches.

Certain sections of the northern portion of the state have a rainfall of sixty inches. The great valleys and the coast country have rainless summers, while up the Sierra slope the summers are refreshed by frequent showers, and the pastures are green the year round. Then the sea breezes of the Pacific have a wonderful effect upon the climate of the coast country. There are the fogs that prevail largely during the rainless season. These fogs roll over from the sea during the night-time, and remain until 10 or 11 o'clock in the morning, when they disperse, and the sun shines forth from a cloudless sky, with the cool Japanese trade winds streaming in from the sea and refreshing the country side for the remainder of the day.

Mind you, these fogs are not chilly and driving, but are soft and warm, hanging over the land like a benediction. They not only refresh man and beast, but temper the prevailing aridity of the climate, assisting growing crops to attain a condition of perfect maturity. Again this combination of hill and valley, sea breezes and land currents produces a remarkable variety of atmospheric conditions. Nearly every neighborhood you visit has its own thermal belt, its frost zone, its fog hanks or its unbroken sunshine.

I give these details not only to indicate the natural conditions as they exist, but to make it plain why it is so difficult to generalize in describing California farm-life. The peculiar development of California agriculturc also renders the task more difficult. Of course, outsidc of the old missions, it started in upon traditional lines; that is, the pioneer farmer went to raising wheat and cattle principally. But even these primitive lines presented their own peculiar features. The bonanza farm ohtruded, and wheat was sown by the thousand acres hy individual farmers.

There were armies of field-hands; plowing was done by great steam plows, or gang plows pulled by ten-mule teams, and the harvesting was done by combined harvesters and thrashers. In the 80's California's wheat output amounted to more than 1,200,000 tons, hut the annual wheat crop has gradually decreased until in the year 1905 it had gotten below 400,000 tons. There are several reasons for this: onc is the impoverishment of thc soil by the continuous cropping of the land to wheat; another is the competition that has grown up in Oregon, Washington and Idaho to the wheat-growing and grain-exporting business of California; and a third reason is the vast development of the fruit-growing business, as well as other lines of agriculture. Still California has its big wheat fields even to-day.

A TYPICAL ORCHARD HOME

Then there was the cattle business. In some instances it developed to haronial proportions. In the old days, before the railroads were built, the cattlemen used to travel from point to point on horseback, with a retinue of attendants and camp followers trailing behind, and it used to be said of one landed cattle-owner that he could travel from San Diego to San Francisco and camp on his own possessions each and every night during the journey. This same cattle outfit is still in existence, and largely controls the meat market of the Pacific Coast.

It was the old Mission fathers that blazed the way for California's great horticultural development. These pious men, coming from Mexico, and even from the Castilian shores, brought with them the seeds of those rich and delicious things that make California's soil products unique in the sum of the country's output. Oranges, lemons, limes, figs, grapes, walnuts, almonds, olives, and a score of other of the world's most choice delicacies, they hrought and planted all up and down the golden coast. These rare exotics under the fostering care of the fathers and the henign influence of soil and climate flourished and produced bounteous stores, which were gladly shared with all needy wayfarers who might apply, no matter what their color might be, their condition of life or religious tendency.

DRAGGING IN A SANTA CLARA VALLEY ORCHARD

A PUMPKIN FIELD IN CARMEL VALLEY

COMBINED ORCHARD AND VINEYARD

Then when the great fortunes were made in the days of the Argonauts, and California awakened more fully to her possibilities of soil and climate, her enthusiastic pioneers began the exploitation of these new fields of agriculture, and in the space of fifty years have made the state the greatest fruit-producing section of the world. Let me give you a few figures that I took from the assessment rolls of Santa Clara County for the year 1905, for they will give some idea as to the development of the fruit-growing business in certain sections of the state:

	Bearing.	Non-bearing.
Apple trees	16,900	38,100
Apricots	527,950	9,675
Cherry	127,400	21,540
Olive	9,370	4,825
Peach	572,400	38,100
Pear	122,220	15,850
Prune	3,938,550	395,440
Almonds	15,190	5,140
Walnuts	9,325	2,720

These foot up to more than six million fruit trees, bearing and coming in hearing, and Santa Clara is not a very large county in area either, containing, as she does, only about 125 square miles in her fruit-growing sections.

So the farmer, as well as the world at large has had the great incentive before him to emhark in thc fruit-growing business, and

while California makes a remarkable exhibit of general farming the really distinctive feature of the state's agriculture to-day is the culture of fruits, both citrus and deciduous, tropic, semi-tropic and of the temperate zone, as well as the small fruits in enormous quantities. The result is that the old-fashioned all-round farmer is somewhat in the minority.

The allurements of California farm-life thus held out, the charm of the climate, and the promise of rich rewards for labor put forth have had the effect to draw recruits from all walks of life; so it may readily be seen that with the peculiar conditions surrounding farm-life, and the peculiar people entering upon it, a general agricultural existence peculiar to itself is developing in the Golden State.

The general tendency is more toward the ideal. The old tradition of farm routine and farm drudgery does not generally inhere. The very air seems to forbid it. More ease, more beauty, more luxury appears to be the prevailing bent of the human mind. That is one reason why Japanese, Chinese, Portugese and other classes of foreign-born farm labor is so much in demand. The farmer and his sons may be willing to "boss" things, and perhaps to take a hand in the field in the more busy seasons, but they decline to get down and do the back-aching work of the soil. Then they must have their days off, their tours into the world, their books, their music, etc.

Much pride is taken in fixing up the farm home, especially the orchard home. During last winter I rode many miles through the Santa Clara Valley, and there did not appear to be much difference between the suburban and the country home. Both were models of neatness and tastefulness. The architecture was modern, and the surroundings very prettily ornamented with trees, flowers and shrubbery. Roses were universally in evidence, growing on bush or in clumps, or climbing over porch or gable, or far up into the branches of the roof tree.

And the farmers of California are raising good-sized families, and the native sons and daughters are noble specimens of lusty manhood and womanhood. And there are many good reasons why this development of the race should continue, and prime among these is the all-the-year-round climate, which admits of unlimited outdoor exercise and the constant ventilation of living and sleeping rooms. Again there is the ample and wholesome diet, including an abundance of fruit, both fresh or dried, canned or preserved, besides the rich contributions of ranch and range, farm and garden.

Of course California life, especially farm-life, is yet largely in its formative period. Many problems, both of an industrial and social nature, still confront the people. Irrigation, which must needs be the leading basic principle of agriculture from a legislative standpoint, is in a very chaotic condition. The state thus far has almost entirely ignored the problem, and left the waters of the state open to appropriation by all comers, and in unlimited quantities; and about the only thing that irrigators have to look to for guidance in their conduct and protection in their rights is to court decisions rather than to legislative enactments. California cannot expect to enjoy the full benefits of her great agricultural land areas and almost unlimited water supply until she shall follow the example of Wyoming, for instance, which as a state and sovereign people has assumed full control of her irrigation affairs, and full ownership of all waters in her natural streams not theretofore appropriated.

But they are raising other things than fruit in California. In the San Joaquin Valley large areas have been put down to alfalfa, and the crop is one of the most profitable in the line of general farm crops. Two years ago when I came through the valley I stopped a week or two at Bakersfield. More than once I was driven out to the Brundage ranch, where the owner was reclaiming 800 acres of worn-out land and seeding it down to alfalfa. He had been a number of years at it and was already cutting a heavy tonnage of hay, and this he was selling off in the stack at that time at $11 per ton to the sheepmen who had driven their flocks down from the mountain ranges to feed during the lambing season. That was an exceptionally high price, because it was in the midst of a drought; but alfalfa hay rules much higher in California than in Colorado, where the farmers consider themselves fortunate when their alfalfa hay nets them $3 per ton in the stack. But alfalfa hay in the bale in the San Francisco market to-day is $12 per ton and going higher.

Mr. Brundage, however, was not planning to sell his hay crop as a general thing, but was already feeding out large quantities to cattle, horses and hogs, and intended to increase his live stock until it should be sufficient to consume his entire product of hay. His experience with hogs was quite interesting. Three years before he had invested $100 in swine. He kept the animals on alfalfa hay and pasturage, finishing off his porkers with pumpkins and Egyptian corn. He told me that he had sold off during the three years not less than $2,500 worth of hogs and had 350 head left, and he said that it seemed to him that the cost of production had been almost nothing.

So it may be seen that there is money in general farming of the old style in California; but it is sometimes harder work than fruit raising, and not quite so esthetic in its nature. The poultry business is especially profitable, and it seems impossible to raise enough chickens and eggs to supply the home market, notwithstanding the fact that the industry has increased enormously of late years. Prices rule high the year through, and still the cry is for more poultry-yard products.

California without exaggeration is a farmer's paradise. The farmer has an open season the year round. He can plow and cultivate all winter, and this in fact is what he does, if he be an orchardist. Of course, if he is a wheat farmer his fields have been plowed and sown during the fall and by midwinter his grain is a foot high and getting ready to head out. But in the orchards the weeds are beginning to spring up and must be plowed under. Sometimes the orchards are plowed twice over during the same season, and are harrowed and disked and dragged many more times. After that they are irrigated, but not much irrigating is done after the first of May.

It is during the winter months also that the fruit trees are pruned, and with all this process of stirring the soil about their roots and the lopping off of all superfluous branch-growth the trees are made to produce to their utmost capacity.

California as a whole is blessed with an almost unlimited water supply available for irrigation. The San Joaquin and Sacramento Valleys have the immense flow of the western water-shed of the Sierras, as well as a considerable flow from the eastern slope of the coast range. The water supply of the Sacramento Valley in fact is so ample that in certain seasons of the year it becomes a menace to lands bordering the rivers, especially to the reclaimed lands of the delta which have for protection merely earth-work levees surrounding them. There are at least a million acres of swamp and overflow lands in California, lying principally in the neighborhood of the confluence of the two great valleys. Large areas of these have been reclaimed and converted into some of the richest farming lands in the world.

Reclamation is secured by building levees and then pumping out the water inside the levees. Then irrigation, after this process has been gone through with, is a very easy matter. Gateways are constructed in the levees and the water let in, in such amount as is required.

Pump irrigation is also very prevalent, for California appears to be well supplied with underground waters. This system is in vogue very extensively in southern California, in the San Joaquin and the Santa Clara Valleys. The last named also has an artesian belt which affords an ample supply of irrigation water for the surrounding land.

The irrigation wells are of various depths, according to the distance from the surface of the earth down to water level; and the pumping plants are of various sizes and are run both by electricity and gas engines fed with crude petroleum.

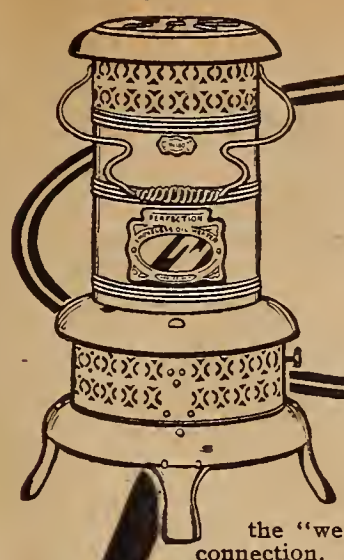
To those seeking advice as to farm opportunities in California I would say that in my judgment they are boundless. Extensive as her agriculture is it seems yet to be merely in its infancy. For the all-round farmer, who delights to have a small farm well tilled and to raise a variety of the standard crops, there is more call than for the mere fruit grower. There are vast areas in northern and central California composed of beautiful mountain and valley lands that would make ideal farms fashioned after the old New England or Ohio farm, and lands may be bought in these regions at very reasonable rates; and the rainfall in those sections is sufficient to make good crops without the aid of irrigation.

◈

Pessimistic Gratitude

I don't see much that pleases me,
No matter where I turn;
The world is full of discontent,
And lessons none can learn.
The weather's always too intense;
Too hot or else too cold.
One day they tell you you're too young,
And next you are too old.
Dame Fortune is to me unkind,
For even when I score
I know that by a different plan
I might have gained much more.
I've known the pangs of hunger keen,
I've felt dyspepsia's clutch—
I've either not enough to eat
Or else I eat too much.
Though punishment is often swift,
Reward is very slow;
An enemy is always true,
Though friends are seldom so.
And yet I hail Thanksgiving Day
With sentiments devout—
I'm thankful for so many things
That I can kick about.

—Washington Star.



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EDITED BY CHARLES DWYER (*For the Past 20 Years Editor of The Delineator*)

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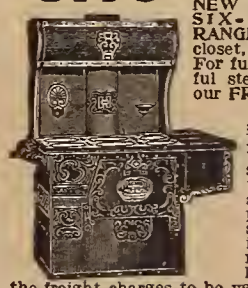

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The Housewife

Christmas Gifts and Visiting

A busy woman, who always managed to have a lot of pretty gifts to present to her friends at Christmas, confided to a friend that it was all on account of her visiting-box or company work.

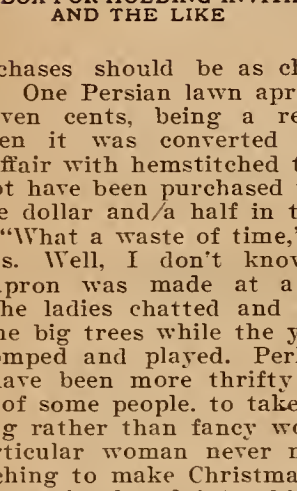
She always had on hand a few unfinished articles in a small shoe box together with thread, needles, scissors and thimble. The box went with her when she made neighborhood calls, and was by her side when she entertained company. All the year round, a few minutes at a time, she turned out pretty things, and at Christmas was the richest woman in the neighborhood without spending very many dollars. The gifts were simple, but their beauty lay in the handwork and good wishes of the maker.

I don't think the box ever was without an unfinished apron, no matter what the weather. She was always on the lookout for "bargains" when she went to town, which was not often, so

FANCY BOX FOR HOLDING INVITATIONS AND THE LIKE

her purchases should be as cheap as possible. One Persian lawn apron cost just eleven cents, being a remnant, but when it was converted into a dainty affair with hemstitched tucks it could not have been purchased for less than one dollar and a half in the city stores. "What a waste of time," someone says. Well, I don't know. The whole apron was made at a picnic where the ladies chatted and worked under the big trees while the younger folks romped and played. Perhaps it would have been more thrifty in the opinion of some people, to take patching along rather than fancy work but this particular woman never neglects the patching to make Christmas gifts, so let her enjoy her dainty things.

Another stock article is the baby jacket. This is made on the circular plan out of white flannel or outing cloth, and has an edging of wash silk buttonholed around the edge. Sometimes the jackets are of pink or blue with white edge, but generally of white, as remnants of this color are more numerous in the stores. Along with the jackets come the corset covers of embroidery so much liked for summer wear. One dainty one with straps of lace insertion over the shoulders cost just twenty-nine cents, and would wear two seasons or more for summer. Another of fine lawn was still less, but it had only a little hemstitched ruffle for trimming. It must be remembered that nothing is bought unless it is a real bargain as to quality and price. A bit of heavy



BAG PURSE

silk of a beautiful pink made four pincushions, and these will be covered with Persian lawn shields to be taken off and washed when soiled, the four costing just forty cents. The cushions are square and stuffed hard with bran, while the ruffled lawn covers are so sheer and dainty that anyone will be pleased to receive such a gift.

For the children there are always fascinating doll clothes made of bits of lawn and lace. This busy woman thinks it little short of a crime to present a girl with a doll to which the clothing is tightly sewed, and her doll babies can always be undressed and put to bed by the small mammas. Often Miss Dolly has a night-gown, a jacket, a rain-coat or several hats in addition to the clothes she wears and the little girl who finds her on Christmas morning is delighted. Anyone who has waited until the last minute to make dresses for dolls knows how difficult and unpleasant the task is, but if taken in time if is a real pleasure.

Of course there are collars and cuffs, costing very little, but neatly made of sheer goods, with just enough work to make them dainty and yet allow careful washing. A woman who received a pair of cuffs with a little eyelet embroidery from the visiting-box last year immediately placed them on her best dress, and has them yet to relieve the rather plain garment. They are easily washed, and a few stitches hold them in place where they set off the black sleeves to perfection. Five-cent lawn was used for a matinee or dressing sacque for an invalid for summer with pink outing flannel for colder weather and both are beautiful. They are fashioned after the simple kimono pattern which is so useful in the sick-room where fussy garments tire the invalid.

So, when the holiday season comes, every gift calls back happy days spent with friends, and the fortunate woman has her simple gifts all prepared. She frankly says she would prefer to buy beautiful china, expensive books and fine toys, but necessity taught her years ago that even people with slim purses can enjoy Christmas and have a share in the joy of giving. With this fact in mind she has kept up her visiting-box year in and year out, and always expects to.

Hilda Richmond.

◈

An Embroidery Silk Case

This little case is out of the ordinary, and yet a great convenience to the woman who is fond of needlework. It may be enlarged, but one does not usually need to have more than half a dozen skeins at hand, since the intricate processes of shading are so seldom followed in carrying out the styles of embroidery now popular. For the worker in all white, floss of the several sizes needed may be run in the compartments.

HANDY BAG

A piece of linen twenty-four inches long and nine or ten inches wide is necessary for one of these cases. The width may be increased if more compartments are desired. About five inches from one end cut in toward the center to the depth of two inches on both sides. Begin at one of these slits and bind the linen with wash ribbon or tape. In the illustration pink silk tape was used. Bind both sides of the slit and continue on around the short end of the linen until the farthest side of the opposite slit is completed.

Now skip to the other end of the linen and bind straight across, leaving the two sides unbound from the slits down. Fold these two sides over toward each other, allowing them to meet at the center, and turning one edge under neatly. Stitch it down with some fancy stitch, or on the machine with colored thread to match the binding. Divide the space on either side and stitch into compartments, leaving the ends open.

In the center of the plain end draw threads for two or three inches of sufficient width to admit the ribbon or tape being used. Hemstitch this space on both sides, and buttonhole the ends. This makes a little heading through which two thirds of a yard of ribbon may be run for holding the case together when not in use.

Now fold the compartments across the center, then this double thickness across the center again, and the whole over onto the upper end. Turn the two sides over and tie at the center into a neat, flat case, easily slipped into a hand-bag or work-basket.

This makes an attractive and useful little gift, and may be formed of any desired material. A prettily figured silk or cretonne is nice. If a material is utilized from which it is difficult to draw threads, a piece of lace or embroidery beading may be stitched into position for the ribbon.

Mae Y. Mahaffy.

◈

A Handy Bag

This little bag is almost a necessity, and after carrying one you will wonder how to manage without it. It can be used to carry a purse, handkerchief, glasses, or anything one needs on a visit or while shopping. Use two pieces of soft brown leather four inches wide and five and one half inches long. Stitch around the three sides on the machine in brown silk thread, on the wrong side of the leather (it is much softer than the right side), then paint or burn some pretty little design down each side and across the end. Then punch seven holes in each side of the top of the bag and run a brown silk cord through these holes to draw both ways. Make your cord long enough to place around the neck, and you have no danger of losing anything from the bag.

M. E. W.

◈

Ribbon Holder

Use a pretty blue and yellow Dresden ribbon sixteen inches long and nine wide. Turn up three and one half inches, and divide equally in four parts by putting some pretty stitch down the dividing line; then bind the ends with a pretty ribbon about one inch wide to match in colors. Then tack to back and center of case the same ribbon as used on ends three fourths of a yard long, and place in little pockets (which are formed by the stitching) white cardboard cut three inches wide and four long. Use one for each, pink, blue, white and lavender baby ribbons. This makes one of the most useful articles for either young or old, for by laying your ribbons in a box or drawer they are always more or less mussed, and many times they have disappeared just at the time they are most needed, but by placing them on one of these little cards you always know where to find them.

M. E. W.

◈

Bag Purse

Crochet a chain sixteen inches in length. Make three stitches for turning, crochet with double crochet into twenty-nine stitches of the chain, and make a chain ten and one half inches long, and double crochet in the remaining twenty-nine stitches. Make three stitches, turn and double crochet in each stitch; make chain and double crochet in the double stitches. Repeat until there are eleven long chains. For the flap and other side of the bag, it is necessary to break the thread and join it to the top right-hand corner of the bag part. Tie it in the same stitch from which the first long chain is made. Crochet a chain of five stitches with three stitches for the turn. Double crochet in the fourth stitch from the end down to the bag—which is five stitches—before taking the last stitch, which unites with the bag. Lay the long chain forward, and make the last double crochet. By so doing when the flap is complete the eleven chains will work through between stitches, as a closing for the bags and to prevent change from rolling out.

BEAN BAG

Finish the bags by joining with crochet up the side and crocheting a narrow fringe across bottom of bag and the flap. Crochet over a brass ring one inch in diameter, slip it over one purse to the middle of the chains. Knot the chains to the ring, so they may not slip through, and the purse is complete. The ring serves to carry the small receptacle over the finger. Made in color to match the gown, they are quite nobby. San silk or crochet silk may be used, and quite handsome results may be attained by working in small beads, as the crocheting progresses.

No lining or clasp being necessary, it makes an attractive, useful and inexpensive gift: and with a small amount of patience easily executed at home.

Heister Elliott.

◈

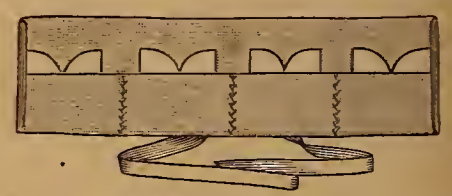
Bean Bags

A gift that affords hours of pleasure to a child and its playmates, is a set of bright-colored bags, crocheted of yarn or san silk.

Start with a circle of four stitches, double crochet into the ring twelve times. Third row: crochet twice into each stitch, continue around, widening when needed, until a circle four or five inches in diameter is made.

Each bag consists of two circles crocheted together around the edge, leaving a small opening for the beans to be slipped in. This is then crocheted together, and the bag is finished.

It is a pretty idea to have two bags of a color, then a regular game may



RIBBON HOLDER

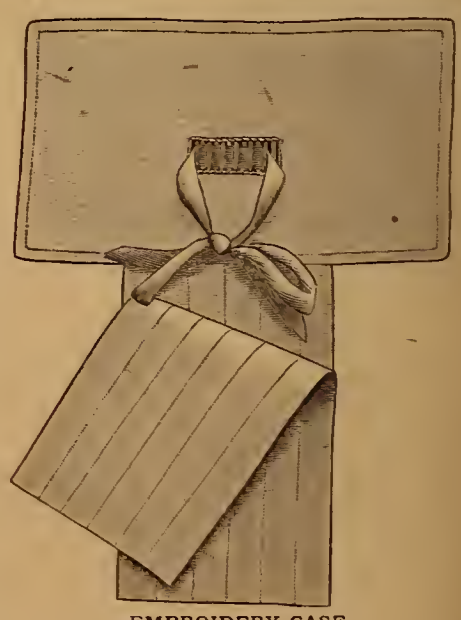
be played, if a board for the purpose is prepared. Procure a board several feet wide of light-weight wood. Have a hole large enough for one bag to go through easily made a short distance from one end. Prop the board on an incline either against a chair, or by means of a prop secured to the board underneath. Choose sides, select your color, and the person who succeeds in putting their bags through the greatest number of times wins the game.

Heister Elliott.

◈

Invitation Box

This beautiful violet and green receptacle for invitations or cards is made by making a three-cornered cardboard box eleven inches on each side and four inches deep. Make the bottom and top the same size. After your box is neatly made, take a piece of the straw covering in which matting is received, cut this two inches larger each way than your cardboard box, allowing one inch to turn down, and stitch on machine as a finish to keep from raveling. Cut the lid one inch to turn under, and then stain all a pretty shade of olive green. Dissolve dye in a small half cupful of boiling water, and apply same to the straw with camel's hair brush. After all is well covered and a good shade of green, let stand until perfectly dry.



EMBROIDERY CASE

Then gather and puff lavender ribbon, or silk, and sew neatly around the inside top of the box, and arrange the gathers in the bottom to correspond with the top.

Cover a piece of cardboard with silk, the same size as the box, and place down in the box, covering the raw edges of the silk. When this is finished, place your box in the center of the straw matting, tack around the outer edges, turning the corners up, and fasten securely and place a bunch of violets and green leaves on the corners you have just finished. That completes your box.

Now take your lid, before covering with the matting, and line with the same lavender silk as the box, and

then take a green ribbon two inches wide and tack from one corner to the other. After this is finished take another piece of cardboard and cover with the green straw. Let it turn under an inch, so that when you fasten the lining on the lid, it will be even and smooth. Paint on your ribbon, in gold letters, the word "Invitations." Sew the straw and lining together, and sew the side of the lid to corresponding side of the box.

Make a stylish bow of green and lavender ribbon, equal parts of each, and place on top of the lid. Place on the bow a large bunch of French violets, with green leaves and stems to match the corners of the box. When finished, place in some convenient place, in hall or living-room, and when you want to answer your invitations or look over your cards, you may know where to find them, as they have a great way of disappearing just when you want them most. M. E. W.

◈

Preserving Butter

MANY farmers who keep large dairies for cheese-factory purposes have the milk at home only a short time in spring and fall, and unless butter is packed during that time for the intervening seasons one is obliged to give the exorbitant prices butter commands in midsummer and winter. It is usually easy to keep butter through the winter, but when packed in the spring it is very seldom it can be kept successfully through the warm months following.

After trying many experiments I have found that if the butter is made into small rolls, and each roll wrapped in a fresh white cloth, tied carefully and immersed in a large jar of brine, it will keep indefinitely. If care is taken to keep the rolls well covered with brine, butter so packed in April will keep perfectly fresh until the last of August. The object of making the rolls small is that so little is taken from the brine at a time that it is consumed before the air can affect it. I have told many of my neighbors of my way of preserving butter, and they have kept it in the same way very successfully. It takes more room than when packed in the ordinary way, but is well worth the difference.

ALICE M. ASHTON.

◈

Rye Cakes

BEAT well two eggs and stir in gradually with a pint of lukewarm milk. Then stir in enough rye meal to make a thick batter. Add a teaspoonful of brewer's yeast. Stir a little, cover the basin with a cloth, and set in a warm place to rise. When the surface is covered with bubbles turn it onto a board, and form into flat cakes. Bake on a griddle, and serve hot or cold, as desired.

◈

Southern Hazelnut Toffee

HAVE you ever made what is known as Southern Hazelnut Toffee? Melt half a cupful of butter; then add a cupful each of molasses and brown sugar. Boil until thick, stir in half a cupful of chopped hazelnuts. Pour into buttered pan and cut into squares when nearly cold.

◈

Chestnut Filling

A FILLING that has the right "smack" at this season is that made with chestnuts. Shell and blanch two quarts. Cook up a marrow bone and extract the marrow fat for the dressing, and boil the chestnuts in the stock until tender. Press through a sieve and add the marrow, a tablespoonful of butter, and three cupfuls of fine cracker crumbs, moistened with a little of the stock. Season with salt and pepper.

◈

Orange Custard

TO MAKE this excellent dessert beat the yolks of five eggs with the whites of two, then add four ounces of sugar. Stir into a quart of milk which is just at the boiling-point and add the grated rind of an orange. Pour into a buttered pudding-dish, set the pan into another of boiling water, and bake till a knife comes out clear. Make a meringue of the whites of the eggs beaten with a little powdered sugar to a stiff froth, flavor with orange juice, sprinkle with powdered sugar, and a little of the grated rind, and brown quickly in the oven. Serve either hot or cold.

◈

Mint Candy

NOW that the holidays are near the mothers want some new recipes for homemade candies. Mint candy is pure and wholesome and especially nice for the children. Take one pound of confectioner's sugar, just six drops of oil of peppermint (the essence will not do), and three tablespoonfuls of water. Into a porcelain-lined saucepan put the water and half of the sugar, and stir until it just begins to boil. Take at once from the fire and stir into it the other half of the sugar and the oil of peppermint. Mix thoroughly, return to the fire and let it boil again. Remove at once from the fire and drop on greased paper to make small round cakes. If this confection is allowed to more than "just boil" it will be spoiled.

PEARL CHENOWETH.

◈

Wheatmeal Cakes

BOIL half a pint of new milk with a pinch of salt, and dissolve in it a piece of butter the size of a walnut. Pour the butter and milk onto sufficient wheatmeal to make a soft, light dough. Roll out one fourth of an inch thick and cut into small round cakes. Bake in a quick oven for ten minutes. Serve hot with butter and syrup.

◈

Cold-Water Sponge Cake

BEAT the yolks of three eggs, add one and one half cupfuls of granulated sugar, one teaspoonful of lemon extract, or one tablespoonful of lemon juice, and half a cupful of cold water. Sift two teaspoonfuls of baking-powder with two cupfuls of pastry flour. Add to the mixture and fold in the whites of three eggs beaten stiff. Bake in a long, shallow pan or in a round-tubed tin.

◈

German Pancakes

TAKE some pieces of stale bread, lay them on a dish, and pour some milk over them. Fry in lard till a light brown. Spread with a little sugar and the juice of a lemon and serve hot. This is a cheap and tasty dish.

◈

Presents for the Invalid

ALMOST acceptable present for an invalid is a number of downy pillows of various sizes, some should not be over five or six inches square. They should be covered with soft linen or cotton, so that the covers can be slipped off and washed frequently; they can be used in so many ways to the comfort of the invalid. Small pillows filled with clover blossoms are refreshing. Those filled with feathers should be occasionally washed in a good soapsuds, rinsed and hung out in the air for several days. M. M. W.

◈

Fruit Cake

ONE cupful of C. sugar (or soft A sugar), half a cupful of butter, one egg, half a cupful of sour milk, one teaspoonful of cinnamon, half a teaspoonful of soda, one teaspoonful of baking-powder, two thirds of a cupful of raisins, half a cupful of currants, flour sufficient to make quite stiff.

This cake is also good made of molasses. Mrs. M. F. W.

◈

Two Ways to Make Scrapple

SCALD and scrape a hog's head, let it soak in salt water for some time, after which boil until the meat slips from the bones. When the blood is soaked out of the liver let it boil until it crumbles; then mix with the meat from the hog's head. Chop both fine and return to the liquor in which the head was boiled. Season with salt, pepper, sage or summer savory. When the liquor boils up thicken with corn-meal in which has been mixed a cupful of brown sugar. Pour in square pans to cool. Choose shallow pans, so that the slices will not be too large. When cold slice and fry brown on a greased griddle.

Another nice way is to cook the head and liver as directed above, and after the bones are removed from the head, and the liver crumbled, mix them together with seasoning of celery seed, salt and pepper, then work the meat thoroughly into an equal quantity of corn-meal mush which has been well salted and thoroughly cooked. Use the hands to mix it, and work it until the mass has a marbled appearance. Shape the mass into a long loaf. Sliced and rolled in meal or dipped in butter and fried a rich brown it makes a nice breakfast dish. MRS. W. L. TABOR.

◈

Start Right Now

THE second instalment of Helen Mortimer's great serial story appears in this issue, together with a brief synopsis of previous chapters. We want every lover of fiction to read this clever story, so if you did not read the opening chapters be sure to commence now. We know you will like the story and you will be doing FARM AND FIRESIDE a favor if you will tell your friends about it.

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MANY housewives hug it still—though it costs them untold labor, expense and unnecessary wear and tear of clothes.

Laundry soap belongs back with the day of the flail, and other crude washing methods. It has no place in the *modern* laundry, kitchen or scrubbing kit.

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Gold Dust Washing Powder has for its base, a good, honest vegetable-oil soap, to which is *added* other purifying materials in just the right proportions to cleanse easily, vigorously and without harm.

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Sausage and lard usually represents about half the product and half the work connected with butchering on the farm. Surely it is worth while to increase the product and lessen the labor when the Enterprise Sausage Stuffer and the Enterprise Meat Chopper can be had at so little cost. Enterprise Sausage Stuffers are a positive necessity for the right making of sausage. Turn easily, and best of all, stuff the sausage without admitting a particle of air to the casing. This insures the preservation of the sausage. Then when the lard is to be made, the SAUSAGE STUFFER is changed to a lard press that will save enough lard to pay for itself in a short time.

ENTERPRISE Sausage Stuffer

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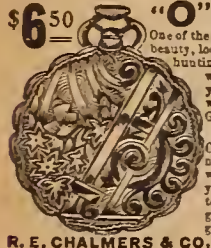

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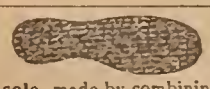
PREVENTS COLD  **OR DAMP FEET**

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Never Fails to Restore Gray Hair to its Youthful Color.
Cures scalp diseases & hair falling.
50c. and $1.00 at Druggists.

Easy-to-Make Christmas Presents

IF TEDDY BEAR could be vain he surely would have been long before this, for he is the most popular, soft, fuzzy little bear you can possibly think of. It doesn't matter at all to him that he often has nothing but commonplace shoe buttons for eyes, and that his skin isn't real fur, but is just made of material that can be bought by the yard. And why should it, when Teddy Bear was a success from his very first appearance?

All last summer he was seen at the most fashionable summer resorts, and frequently displayed a wardrobe fit for a real and very fashionable little girl. Even in the public dining-rooms of the big hotels and restaurants Teddy is often seen occupying a place of honor. To say that he has put the nose out of joint of many a bewitching French doll, is really to express it mildly. The funny little bear toy is hugged and loved by more little folks in this big land than you can count.

No. 837—Toy Bear

Pattern cut in one size—bear 15 inches high. Quantity of material required for making this bear, half a yard of material thirty-six inches wide, with a small piece of chamois or leather eight inches square for paws, and two buttons for eyes

all sorts of prices. Our patterns, which are included in No. 840, make a fine outfit for a boy doll. There is a complete sailor suit for the young gentleman which will make him most attractive. This is really his dress-up suit, and then there are his working clothes, which he will need, for all boy dolls should be taught to work, even though they are young. His working suit consists of overalls, just like a real boy's, and a neat little white jumper waist, which his small mother can wash and iron when it gets soiled. It costs ten cents to get both these suits, and any little girl would be sure to like them if she happens to have a boy doll among her Christmas presents.

On page 30 we are showing other designs suitable for Christmas sewing. The pattern for the dog and dolls will aid you in making a suitable present for either boy or girl.

No. 840—Boy Doll's Outfit

Pattern cut in one size. Outfit consists of sailor suit and full white jumper and overalls. Quantity of material required for sailor suit, one half yard of material twenty-seven inches wide, with one fourth of a yard of contrasting material for collar and shield. Quantity of material required for jumper, one half yard of material twenty-seven inches wide; for overalls, one half yard of material twenty-seven inches wide

FARM AND FIRESIDE subscribers that any one of them can easily make a Teddy Bear by following carefully our toy bear pattern, which costs but ten cents. Brown and white are the favorite colors for this cute little bear, and any of the following materials will make him most attractive—plush, bearcloth, coarse velours, eiderdown, astrakhan cloth, or even flannel.

Preparing for Christmas each year when there are many little folks in the family, and but little money to spend, often means many a big heartache for the mother who makes the Christmas. It was especially for this good mother that this page of homemade Christmas presents was planned.

Every real mother knows that there is something very appealing about a rag doll to the heart of the little girl-mother. Perhaps it's the fact that the rag doll can look well, no matter how hard a life she leads, but at any rate she is very much a favorite. The FARM AND FIRESIDE pattern for a rag doll makes just the sort of a doll that any little girl would love, and for ten cents can be bought not only the pattern for the doll itself, but a pretty little dress and the cutest sort of a sunbonnet.

Boy dolls are always great favorites among little girl-mothers. Probably it's a feminine weakness which shows even at the doll age. The toy shops display all sorts of fascinating boy dolls at the holiday-time at

No. 841—Rag Doll and Dress

Pattern cut in one size, for doll 22 inches high. Pattern given for rag doll to be stuffed, for dress, and for sunbonnet to fit doll. Quantity of material for rag doll, three fourths of a yard of material thirty-six inches wide. Quantity of material for dress, one yard of material thirty-six inches wide, with one eighth of a yard of lace. Quantity of material for sunbonnet, one fourth of a yard of material thirty-six inches wide, with one yard of embroidery for frill

As a Christmas present Teddy Bear could not possibly have a rival. The fact that in the shops he is expensive makes it all the better news to the

No. 844

No. 845

No. 844—Shield Waist with Lace Guimpe

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, two and three fourths yards of twenty-two-inch material, or one and one half yards of thirty-six-inch material, with three yards of thirty-six-inch material for the guimpe, and one half yard of lace for collar and yoke

No. 845—Eleven-Gored Skirt

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt in front, 42 inches. Quantity of material required for medium size, or 26 inch waist, twelve yards of twenty-two-inch material, or eight and one fourth yards of thirty-six-inch material

PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the number and size of the pattern desired. Our new winter catalogue of fashionable patterns containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

CORRECT FIT

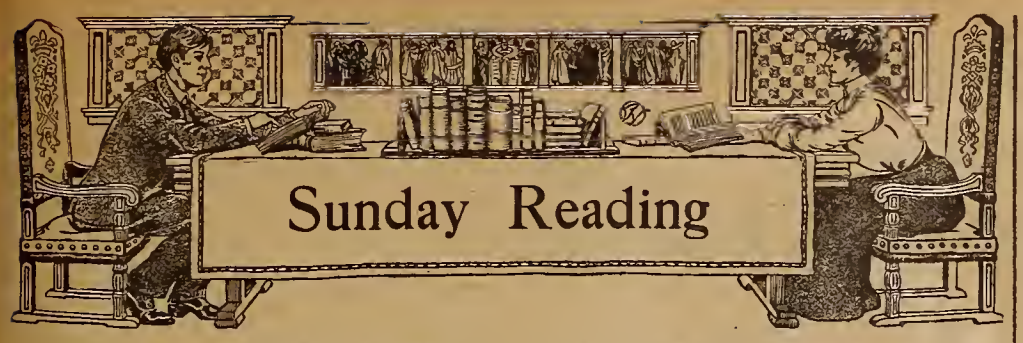
To obtain patterns to fit you correctly always send the size you require

No. 829—Waist with Detachable Bolero

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one half yards of thirty-inch material, or two yards of forty-four-inch material, with one and one eighth yards of contrasting material forty-four inches wide for bolero

No. 830—Three-Piece Skirt

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt in front, 41 inches. Quantity of material required for medium size, or 26 inch waist, six and one half yards of thirty-inch material, or four yards of forty-four-inch material, with one yard of contrasting material forty-four inches wide for band. The waist for this costume may be worn with or without bolero



Honor Among Men and Women

One of the interesting discussions of the recent meeting of the National Union of Women Workers in Great Britian related to the relative sense of honor possessed by men and women. As men were not permitted to take part in the debate the conclusions are the more important, so far as they give credit to man. One of the most prominent members of the union spoke reprehendingly of that defect in feminine honor which cheats at games, "talks of having servants when they have none," reads other people's letters, and listens to conversations intended for other ears. Says the Chicago "Tribune."

The reason assigned for these lapses from honorable conduct was the neglect of early training. Boys are taught to be chivalrous toward girls. A boy knows that when he cheats he will be spurned by his fellows. But a girl is handicapped by the knowledge of boyish chivalry and by the fact that her little digressions will be tolerated. Boys abide by an umpire's decision; if girls do not like the decision they appeal from it. And, to sum up the whole matter as discussed by the speaker, "girls generally have more sense of honor by nature and boys more by training."

Another speaker lamented the fact that the public expects a lower sense of honor in women than in men. It is generally assumed that a woman will smuggle whenever the opportunity presents, and, although punishment may follow in accordance with law, nobody is disposed to marvel because a woman takes advantage of an elastic conscience. The speaker maintained that this reproach—for it can be called nothing else—should be overcome by women, who must conceive so high a notion of honor as to dispense with all the courtesies of a false chivalry.

Had this debate been carried on in America it would have involved something more than playing games, fibbing about servants, and poking into other people's correspondence. While it might have been admitted that the sister on this side of the Atlantic is likewise handicapped by certain obstacles of chivalry, it would have been shown that the promotion of thousands of women to positions of trust and responsibility has developed a standard of honor and integrity which men might well desire to attain. The argument is frequently advanced that greater power and longer opportunity have made men in confidential positions less honorable than women, and that a woman is honest because she has not yet learned to be dishonest. This would indicate, then, that a woman has a sense of honor by nature which she loses by training, a conclusion which the English union would be disinclined to accept.

A notable feature of the English discussion was the general admission of the superiority of men in respect to honor, coupled with the modest assurance that "there is much more honor among girls now than there was two centuries ago." The Englishwoman—except in occasional outbreaks in the neighborhood of parliament—never forgets how humble she should be in her attitude toward man.

◈

Reading for Profit

How many women, after school days are over, take up with any seriousness books which have to do simply with intellectual culture? Professional men and students, as a matter of course, read along the lines of their special work, but many women confine their reading to their Bibles, their favorite weekly paper, a cook-book or two, and now and then a story—possibly many stories. It is no waste of time to read good novels. They are pictures of current manners. They rest us when we are weary and amuse us when we need entertainment; but for solid benefit to the mind, reasoning powers and memory, one should take up something serious and plod on through it steadily and doggedly day in and day out.

The woman who would really grow must not neglect history, and once in a while it is just as well to undertake what appears like a serious task. Choose, for example, some period in English history, and undertake the study of a selected author. If you prefer psychology or philosophy, find a standard work and daily accustom yourself to read a number of pages, thinking about what you read, and reading consecutively.

If you care for poetry, choose Wordsworth, Browning or Tennyson, and go over a certain amount, not lightly skimming the page, but thinking while you read; and you will find at the end of a month, or three months, or six months, as it may be, that you have enlarged your vocabulary and have taken in rich stores of thought and pleasure for days to come.

In this way the middle-aged woman will run no danger of being outstripped by her sons and daughters who are giving their time to study, and who are very apt to fancy in their youthful complacency that their parents are somewhat hopelessly behind the times.

Margaret E. Sangster.

◈

Unconscious Kindness

A young woman who had passed through deep sorrows said to a friend one day, in speaking of the comfort certain persons had given her unconsciously: "I wish some people knew just how much their faces can comfort one! I often ride down in the same street car with your father, and it has been such a help to me to sit next to him. There is something so good and strong and kind about him; it has been a comfort just to feel he was beside me. Sometimes, when I have been utterly depressed and discouraged, he has seemed somehow to know just the right word to say to me. He probably has not the least idea of it either, for I know him so slightly, and I don't suppose people half realize, anyway, how much they are helping on or hindering others!" There is a great deal of this unconscious kindness in the world. Moses wist not that his face shone. The best people are not aware of their goodness. According to the old legend, it was only when it fell behind him, where he could not see it, that the saintly man's shadow healed the sick. This is a parable. Goodness that is aware of itself has lost much of its charm. Kindnesses that are done unconsciously mean the most.—Southern Churchman.

◈

Making Marriage a Success

In business, if problems arise, a man seeks to master them; if inharmonies threaten to eclipse his success, he seeks to remove them; he doesn't let things drift or work themselves out in some way; he knows it is his business to find out where things are wrong and how he can set them right; he does not shut his eyes to troubles, and think that he is curing them by obscuring them. Men are often resigned to conditions in their home that they would never surrender to in their business; they often accept as inevitable in their home-life what they could change if they only would. It is cowardly to accept any wrong condition if any amount of effort will right it.

People often fan themselves into the serene self-satisfaction that they are bravely accepting fate, when they are really only too mentally lazy or morally inert to take a bold, firm stand to win the freedom of thought and action they desire. There are little rifts in the lute of marriage happiness that, unnoted and uncorrected, widen until the music of sweetness is lost. There are little differences that a few moments of listening, a few moments of kindly wisdom and explanation will set right, but foolish pride may deter, and a heart is wounded; unrest, vague understanding and suspicion dethrone confidence and a sad growing apart may darken the years.

Sometimes the lack of proper understanding comes from that moral cowardice that seeks only to preserve 'peace in the family.' This is a false peace. It is treason thus meekly to surrender, shutting out the true, white light of real peace for a silent suffering protest which eats into the heart.—Delineator.

◈

If you haven't started to read Maude Roosevelt's story running in Farm and Fireside do so at once. See page 13.

Best Christmas Gift

For Wife, Mother, Daughter, Sister or Sweetheart

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This volume contains the words and music of the choicest gems of the old and familiar songs we used to sing when we were young. The singing of these songs will not only "drive dull care away," but bring new and continued happiness and cheerfulness into every home which it enters. It has been arranged with great care and we are positive that it is the best book of the kind published. It contains **250 Songs** including all the following: Good Bye, Charlie; In the Starlight; When You and I Were Young, Annie; Battle of Bunker Hill; Black-Eyed Susan; Killarney; Speed Away, Speed Away; Come Back to Erin; Where's Rosanna Gone; Spring, Gentle Spring; The Maiden's Prayer; Old Dan Tucker; Old Grimes; My Bible Leads to Glory; When I Can Read My Title; Star of Bethlehem; I'll Hang My Harp on a Willow Tree; Old Tubal Cain; Sing, Sweet Bird; Molly, Put the Kettle On; We're a' Noddin'; My Mother's Bible; Where Was Moses when the Light Went Out? Come Home, Father; The Danube River; By the Blue Alsatian Mountains; Hickory, Dickory Dock; Take Back the Heart; Old King Cole; The Old Oaken Bucket; Home, Sweet Home; Star Spangled Banner; Hail Columbia; Canaan; Comin' Thro' the Rye; Robin Adair; Annie Laurie; When the Swallows Homeward Fly; Ben Bolt; Uncle Ned; Rock a Bye, Baby; Seaside Cottage; Kind Words Can Never Die; Little Buttercup; The Heart Bowed Down; Life on the Ocean Waves; Columbia, Gem of the Ocean; Marseillaise Hymn; Paddle Your Own Canoe; Kathleen Mavourneen; Don't You Go, Tommy; Up in a Balloon; Ring on, Sweet Angelus; Soldier's Farewell; Johnny Morgan; Nancy Lee; Man in the Moon; Billy Boy; Bell o' Baltimore; My Heart with Love is Beating; Our Flag is There; My Little Wife and I; Over the Garden Wall; Let Me Dream Again; Do They Think of Me at Home; When the Band Begins to Play; Tho' Years Have Passed; Within a Mile of Edinboro' Town; I Wish You Well, &c., &c.

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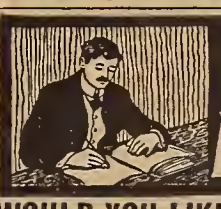

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In a Miscellaneous Way

Signs and Symbols

THE peculiar origin of certain signs and symbols never ceases to be of interest. The "Sunday Magazine" tells

How the Barber Got His Sign

The striped barber pole originated in England in the Middle Ages, when the professions of the surgeon and the tonsorial artist were one. Phlebotomy was then considered a cure for every ill.

During the operation, the unfortunate patient had to grasp a pole firmly in his hand, that the blood might flow more freely. This pole was usually painted red, and to it were attached the white bandages which the barber surgeon, or the surgeon barber, used to stop the blood. When not in use the pole was suspended outside the shop, sometimes capped with a basin, to inform wounded travelers where they might obtain relief.

The practise was made permanent finally by law, and even after the professions became separate, both the barber and the surgeon had to erect poles outside their establishments.

The Tobacconist's Effigy

One of the most peculiar things in the whole history of signs is the fact, that while all other shopkeepers were patronizing the embryo painters, the tobacconist always called upon the wood carver on the Continent as well as in England. As long ago as Elizabeth's reign the wooden image of the Black Boy was the favorite sign of the tobacco dealers. Later the customary sign was the Highlander, or a figure of Sir Walter Raleigh.

In Holland, for some strange reason, the tobacconists adopted the dairy maid as their sign, with the motto, "Consolation for sucklings." The Indian, naturally enough, has always been the predominant sign in this country, although once in a while a reversion to type crops out with the ancient Black Boy.

Origin of the Three Balls

The origin of the pawnbroker's sign, the three golden balls, is accounted for by humor, legend and fact. Some early English wit said they were used to indicate that the chances were two to one that the articles pledged would never be redeemed. On the other hand, they are ascribed to the good Saint Nicholas. A nobleman of that city, so the story goes, suddenly becoming poor, found himself unable to provide for the marriage of his three daughters. The news of this sad plight came to the ears of the saintly bishop, who immediately came to the rescue by placing three bags of gold in the nobleman's window at night, each bag containing a sufficient dowry for one maiden. The three purses accordingly became the emblem of Saint Nicholas, and when the bankers of Northern Italy took up the business of lending money, they appropriated it, evidently considering themselves good followers of the generous saint.

The fact, however, seems to be that the three balls were taken from the lower part of the coat of arms of the Dukes of Medici, from whose dominions the first money lenders emigrated to England. This explains why some of the ancient pawnbrokers used five blue balls; for the coat of arms in heraldic language is described as five bezants azure.

Symbols in Olden Times

In olden times there was a sign representing a hare and three women. This device was supposed to indicate that trade in the shop was performed with swiftness and great carefulness.

Then there was another sign on which was painted in gaudy colors a padlock and an anchor. The significance of this was that the goods sold in the establishment were firm and substantial in quality and that the trader hoped for future patronage.

Probably the reason for so many inharmonious signs was that though every trade had a given or fixed sign the trader often added to the regulation form some design or original idea of his own.

Many of the old signs were painted by great artists, who received large sums for their services, and when a man was thinking of opening a business the first consideration and expense reckoned was that of his sign board.

◈

Growth of Finger Nails

THE growth of the average finger nail is computed to be one-thirty-second of an inch a week, or a little more than an inch and a half a year. Imagine the care taken by the aristocratic Chinese in cultivating their finger nails, which often grow to be six or eight inches long. Just think of letting your finger nails grow for eight years without cutting them!

The finger nails are said to grow faster in the summer than in the winter. The nail on the middle finger grows faster than any of the other nails, and that on the thumb grows slowest. It is also said that the nails on the right hand grow faster than those on the left hand.

According to the rate of growth stated, the average time taken for each finger nail to grow its full length is about four and a half months, and at this rate a man seventy years old would have renewed his nails one hundred and eighty-six times. Taking the length of each nail as half an inch, he would have grown seven feet nine inches of nail on each finger, and on all his fingers and thumbs an aggregate length of seventy-seven and a half feet.—Sunday Magazine.

◈

Artificial Eggs

THE artificial egg as a commercial product having been abandoned by scientists as an impossible invention, says the "Sunday Magazine," attention is being drawn to the preservation of real eggs for indefinite periods. Canned eggs, limed eggs, cold-storage eggs, and eggs preserved in water-glass and other chemical compounds are now regular market products; but the most recent egg freak consists of hard boiled eggs preserved in clay and charcoal paste. The idea of thus utilizing the eggs during seasons of plenty is derived from China.

The Chinese have preserved boiled eggs in clay for a long time, and some of them are said to be centuries old. The eggs are boiled hard and wrapped in soft clay white hot. The clay hardens, and looks like pumice stone. They are packed in bags and rice husks, and kept indefinitely. When opened the yolks are green and the white part almost black; but they retain a distinct egg flavor, and when chopped fine they flavor sauces and gravies as well as fresh boiled eggs.

The duck eggs are boiled and packed in a paste of charcoal, which hardens about them and forms a perfect protection.

Experiments are now being made in the egg districts of this country to imitate the Chinese and go them one better. If the color of the eggs can be retained restaurants may in time be able to serve hard boiled eggs to customers without the latter detecting their great age. The character of the clay and charcoal is said to determine the darkening of the inside, a dark, heavy clay preserving the delicate white and yellow of the eggs better than the light clays.

◈

Here and There

THE Chinese do everything backward, from an European point of view. Their compass points to the South, instead of the North. The men wear their hair long, while the women coil theirs in a knot. The dressmakers are men, the women carry burdens. The spoken language is not written, and the written language is not spoken. Books are read backward, and any notes are inserted at the top. White is used for mourning and the bridesmaids wear black.

In Mohammedan countries women are not admitted beyond the doorways of mosques.

The public executioner of Austria wears a pair of new white gloves every time he carries out a capital sentence.

The Strange Adventures of Helen Mortimer

[CONTINUED FROM PAGE 16]

don had begun. Fearing I might arouse suspicion in the house if it were discovered I had been up the whole night, I hid Barrington's bag in the closet, put out the light, and went to bed. But I was too excited to sleep, and lay there with my eyes wide open, hearing the servants come down, and the windows being opened below. My brain worked like wildfire, going over everything that had happened, and realizing that I was in the thick of some hideous plot from which there now seemed no escape. The loneliness of the situation made me half decide to write to Halifax, and ask his advice, but the thought of confessing to him the ugly position I was in, which would prove I had given him a false impression in the beginning, made me afraid he would only put me down as an American adventuress and a suspicious character, so I decided to first cable Mrs. Pancoast and see what came of it, before taking any other step. I hated the idea of having Halifax know I am mixed up in an affair of this sort, whatever it is. He probably does know it now, and will never believe I entered it innocently.

"Although I don't care so very much for his opinion, it is horrible to feel he thinks of me with contempt, and probably judges me in comparison with Ethel Watson who is traveling properly under the chaperonage of her mother! Mother! Heavens! How lovely it must be to have a mother to care for and guard one, even at a sacrifice to herself, as her mother does! I never felt the need of one so much in my life. However, there is no use kicking against the injustice of fate, and although I did drop a few weak tears, I stopped them quickly, and presently fell asleep from sheer exhaustion.

"I was awakened by some one knocking, and sprang up in terror I don't know of what, but I was trembling like a leaf when I went to the door.

"A nice-looking maid, in white apron and cap, stood there, holding a yellow tin water-can with a long spout.

"'''ot water Miss,' she said, and I, not wishing her to come in on account of Barrington's coat, which was lying conspicuously on a chair, took the can from her.

"'Can't I have a bath?' I asked.

"'Oh yes, Miss, I fetched the 'ot water in case you did not wish a bath. The bathroom is just at the end of the first flight, Miss. Shall I run it, Miss?'

"'Yes, tepid please,' I replied, thanked her, and closed the door. Then I stood wondering what I would do with that coat. I don't believe the landlady noticed I had it the night before, as it hung over my arm and looked like an extra traveling wrap, but in the full day it would surely be discovered. It was a heavy winter overcoat, not easy to get rid of secretly, and get rid of it I knew I must, to avoid disagreeable curiosity and comments.

"First I thought of putting it between the mattresses of the bed, but as it was more than likely to be discovered there, I folded it smoothly, and laid it flat on the top of an old-fashioned wardrobe where it was completely hidden behind a high piece of front ornamentation. The thick layer of dust up there was sufficient proof that it was not likely to be disturbed there for another decade, and I was able to heave a sigh of relief that it was safely out of sight, before the maid rapped again to tell me the bath was ready.

"Immediately after breakfast, I went to the corner and sent this cable to Mrs. Pancoast:

"'Mrs. Pancoast care Ridgeway, St. James Building, Broadway, New York. Trunk and telegram stolen. Cable directions. Mortimer 31 Oakley Street, Chelsea.'

"It cost me a small fortune, which the uncertainty as to whether or not it would ever reach her, made me loath to pay. But there was nothing else to do, that I could see, for as she had warned me so explicitly to say nothing to anyone about the trunk, I was afraid to ask advice of people in the house.

"I lived in a fever of anxiety all day, knowing that every hour Barrington was getting farther away with the trunk, and might never be traced. I was so nervous I hated to go into the dining-room and subject myself to the scrutiny of a lot of staid English people, who, I imagine, regard me suspiciously, and I know I act as though I were under the shadow of a crime. I jump nearly out of my chair at every sudden noise, and when anyone looks at me steadily, I feel the color rising guiltily to my face.

"The landlady is a maiden of about fifty, thin to emaciation, with bony claw-like hands, and a face like a skull with highly colored skin drawn over it, from which a pair of round, watery blue eyes look out with the innocent unfocused gaze of a young kitten. Her thin hair is frizzed in front, and held tight down under a net, a little white collar encircles her throat, which is like the neck of a picked chicken; and wide spotless cuffs yawn about her thin wrists. She is the personification of virgin neatness and decay!

"Oh, it is awful to see a woman who was once young, and probably cherished dreams and aspirations, come to that! I get morbidly depressed every time I see her long, bluish teeth exposed in a simpering smile; for she is not yet beyond coquetry, and fusses over a fat man, who sits next to her at table, in a most ridiculous manner.

"One thing I like about these English people is their voice and beautiful articulation. It is such a relief after the hideous nasal twang of Americans. The people in this house are probably all middle class, but their manners are charming, and it is really a pleasure to hear them conversing at meals. I never enter into the conversation, although sometimes I should like to, just to relieve loneliness; but I feel so guilty I haven't the courage. You would be surprised to see how timid I have become; I almost resent it when anyone addresses me.

"At dinner to-day a stout woman, sitting next to me, who looks like a shoddily dressed, misplaced duchess, asked me if I had come alone to England, and I blushed until I couldn't see and muttered something about expecting friends soon. She was merciful enough not to question me again; but I saw her glance curiously at an old woman opposite, who was studiously watching me. I know they all think I am hiding from justice for some horrible crime, and I really feel as if I were.

"But, my dears, I am digressing from the main point. I know you don't take the slightest interest in these boarding-house people, you have enough of that where you are, although of a different breed.

"Well, the whole day passed without bringing any response to my cable, and I of course concluded it had never reached Mrs. Pancoast, and consequently became so nervous I could not sleep. As I had nothing to read I again perused those letters of Barrington's,—pored over them until I now really know them by heart. But they mean nothing to me, unless the L. F. in the first letter I give means Mrs. Pancoast. She probably is also going under another name as all the others seem to. But even if this be so, it does not make matters any clearer, and I got so tired puzzling over the things I determined to go to bed, with the hope that the next day some news would come. I was in the act of taking down my hair, when I was startled by hearing someone beating the front door frantically with the knocker. It was then after twelve, and everyone in the house had retired; but the idea came to me that it might possibly be a reply to my cable, and I started down the dark stairway with my hair flowing.

"On the floor beneath I beheld a sight to make the gods laugh. A stout old man in pink striped pajamas, and his head in a nightcap, stood at the top of the next flight, holding a candle above his head, while he felt about with his slippered foot for the first step. Behind him, peering from her half-open door, stood the 'duchess' in nightgown and curl papers, muttering in a shocked whisper. 'Dear me! dear me! what a noise! Fancy making such a noise at this hour of the night! You had better hurry, Major, or everyone in the neighborhood will be roused.'

"'Hurry!' growled the old man, 'how the deuce can one hurry in this obscurity! What in the name of goodness can—'

"As I was in my wrapper I squeezed past him, saying I would open the door, and sped down the stairs in a flash, to find my hope verified by being handed a telegram addressed to me, and back I rushed to my room. A chorus followed me of muttered complaints from several white-robed figures who apparently held me responsible for their rest having been disturbed, but I, not heeding them, locked my door and tore open the despatch. It contained these words:

"'Do nothing. Mrs. P. arriving Southampton 30, St. Paul.'

"The Strange Adventures of Helen Mortimer," by Maude Roosevelt, will be continued in the December 15th issue of Farm and Fireside. If you like the story, so far as you have read, will you please tell your neighbors and friends about it?

The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit $1.00, addressed to "Law Department," this office, and get the answer by mail

Title to Land

L. V. P., Georgia, writes: "J. bought a farm on time from D. J. had nothing but bond for titles, and never paid D. for the farm, so D. had to close J. out. J. seeing he could not pay for the farm and would have to give it up, went to P. and asked him if he would pay D. for the land and get a deed to it and let him have one more year to pay for it. P. paid D. for the land, and got a deed from D. and gave J. one more year to pay for the land. He gave him bond for titles and took his note payable one year after date, but if not paid at that time the bond was to be null and void. J. lived on the place one year, made no payment, then moved off. After he moved off he returned P.'s bond back to him. Two years later J. came back to P. and told him if he would let him have his bond back, that he would pay him for the land in full, by the first of January, 1905. P. told him he would give him one more chance, and wrote these words on the bond, and turned it back to J. 'This bond being turned back to P. from J.' P. turned the bond back to J. with the understanding that he was to pay P. for the land by the first of January, 1905, and if not paid by that time the bond is null and void without litigation. There was no payment made, and now J. is trying to hold on. How is P. to proceed to get the land or his money?"

As P. held the legal title and has a deed for the land, I do not see why he is not the owner, as J. has failed to comply with the conditions of the title bond. It may be possible that P. will be required to institute some legal proceedings to get possession of the land, but ultimately he will succeed in his effort in that direction.

◈

Rights of Deserted Wife

G. R. N., Virginia, writes: "A man's wife left him a number of years ago, she having no living children. He lived with relatives and died, leaving real estate, some personal property, and debts that must be paid. His relatives cared for him during his illness and death, his wife not coming forward before death nor since. What is the correct thing to do?"

As long as the wife is not legally divorced or dead, she would be entitled to her marital rights in the property of her husband. Probably the best thing to do in the above case would be to have an administrator appointed, then have him to file his petition in court and have the property sold, making the wife a party by publication.

◈

Line Fence—Disposition of Breachy Stock

L. B., Ohio—No matter whether your neighbor uses his land or not, under the present fence law he is obliged to make and keep in repair one half of the fence. If he fails to do so you can have the trustees apportion the fence and build his half, and if he does not pay for it then they could place it on the tax duplicate. You are not obliged to fence against breachy cattle. You are only obliged to make a fence that will turn stock. If this heifer gets into your property over the line fence of your neighbor, of course the owner would be responsible; or if you have a good fence and she gets over that the owner will be responsible. The only thing for you to do is to impound the animal and make the owner pay the expenses before the heifer was returned. Of course you may be compelled to do something that you do not like to, but this is often the case in protecting your own rights.

◈

Renting of Property

A. M. T., Pennsylvania, writes: "I have a double house and rent to two families. No. 1 rented a room from No. 2. No. 2 left the house, but No. 1 still holds the room and refuses to pay full rent for the room. I can't rent the rest of the house with the room that No. 1 holds. What can I do with No. 1?"

If the tenant persists in holding the house, why of course he is liable for the rent. If he will not get out you will be obliged to proceed as the law contemplates and put him out in the legal way. You should consult a neighboring justice of the peace.

◈

Questions Between Landlord and Tenant

C. P. C., Ohio, writes: "A. is the owner of a farm; B. is the renter. (a) Has A. any right to designate what crops B. shall raise if it is not to B.'s financial benefit? (b) Has A. any right to say where B. shall run the telephone wires, or in what room he shall hang the telephone, if B. pays the rent of the telephone?"

It occurs to me that if A. has given possession of his farm to B. as a tenant, without a reservation to control and direct the crops that were to be put into the farm, that this is a matter that rests in B.'s (the tenants) discretion. Possibly if the farm is rented on shares, A. might prevent B. from putting in a crop that would result injuriously to A. the landlord. However, if the landlord wishes to dictate the crops that are to be put into the land, he must reserve such right. It might be stated to be the general rule. As to the second part of the query it brings up one of those new questions that Blackstone and the fathers could not recognize in the old common law, and had nothing of a similar character. The only way it can now be answered is in application of the general rule, and as a telephone is beginning to be recognized as one of the essentials, or at least a very great convenience, I would say that there is an implied right to put in a telephone, but the tenant must put it in in such a way as not to injure anything belonging to the landlord.

◈

Sale of Interest of Heirs by Quitclaim Deed

S. H. S., Ohio, writes: "A. dies leaving no will. As I understand it, B the widow gets the income from one third the real estate during her lifetime. (1) In case B. and heirs (children of A. & B.) decide to sell property, what part of money received does B. get? One third or only the income from one third? (2) C. one of the heirs sells his interest to D. giving quitclaim deed. In case C. dies before B. is D.'s quitclaim deed good for any part of the estate?"

Where a person dies, leaving a widow and children, and owning real estate, the wife has a dower interest therein, and such interest will be set off to her in an action at law. If the property is sold and so situated that no part can be set off, then the courts will fix the amount that she is entitled to out of the proceeds. If all parties agree in the sale of the property, there are tables which are used to fix the widow's absolute interest or the amount of the same. Of course, this interest of the widow would not be absolutely one third. It would in effect be the income of one third. (2) C.'s interest being a vested one he could sell the same and D. would get a good title to it, no matter whether the deed of C.'s was made before or after the death of B.

◈

Dog Law of New York

E. W. B., New York—The law in relation to this query is not at my command.

◈

Control of Right to Get Water from Premises of Another

W. M. C., West Virginia, writes: "A. owned two lots, and sold one lot to B., a well being on lot A. sold to B. B. gave A. privilege in deed to get water from said well for family use, so long as there was water sufficient for both families. A. built on lot he kept. Can B. force A. to go around or along one end of lot and down to the well?"

The querist has a diagram accompanying his letter, which shows that the lots are adjoining, and that the well of water is some distance from the front or roadway, and that it would be more convenient to go straight across than to go around the road. It seems to me that all that the purchaser of this lot could ask, would be the privilege of getting water, and the right to do so in a reasonably accessible manner. I do not believe that the seller of the other lot would be obliged to forever allow the purchaser to come straight across the property instead of going a few steps further, or perhaps over a little more difficult way to come to the well; but all of these matters might be controlled somewhat by the location and the accessibility afforded by the round-about route to get to the well, but as a general proposition, I would say that all that the seller is obliged to do is to permit the purchaser to get water at the well and furnish a reasonable way to get to the well.

◈

Maturity of Note

E. J., Maryland, writes: "A. and B. are brothers. In 1901 their parents deeded the home farm to A., although B. was to hold the deed until the death of the last surviving parent. By understanding between A. and his parents (two days after deed was made) A. gave B. a note for $1,000, B.'s share of said farm, of which the following is a copy. 'I, A. hereby promise to pay B. the sum of one thousand dollars, legal money of the United States, at the time when I shall receive a full, clear and legitimate title to, and possession of, the property conveyed to me by deed of gift from my parents C. and wife, D. This property will be retained in their possession during their lifetime. Therefore the promise to pay is due at the death of the last surviving parent. The payment is to be made at this time or as soon thereafter as the payee may demand. The amount bearing interest after due until payment is made. The payee shall accept the money or partial payment thereof any time after due, whether he demand it or not. Signed, A., Jan. 3, 1901.' In the year 1904 the father died. While upon his death-bed he was persuaded by A. to surrender the deed; and upon the father's request B. let A. have the deed with the understanding between A. and B. that A. was to pay the note at once. After A. had the deed placed on record he refused to square up said note, saying he was not obliged to pay it, as he did not have a clear title until the death of the last surviving parent. The mother is still living on the farm with A. The deed shows that A. has a clear title to the property, and the mother has no claim on said property whatever. Was this note due by law, at the time the deed was given to A. or is it due at the death of the last surviving parent?"

The note is clear in its terms when it should become due, and therefore the question whether or not it would mature at an earlier date would depend entirely upon the fact whether all the parties thereto had agreed that it was to become due at an earlier time. If A. agreed with B. and the father that if the deed were surrendered at once that he would then pay the note, then, of course, A. would be held and would be obliged to pay the same, notwithstanding the fact that the mother might have a dower interest in the property.

◈

The Will Must Control

J. E. C., writes: "A father leaves all he has to his son. He is to have control of it and use it as he sees fit. If he dies and any of the principal is left, it is to go to a niece. Could he invest it so his wife could have the use of it as long as she lived or would it go direct to the niece?"

I wish to again call attention of querists to give the state in which they reside. Proceeding to answer the query, I will say that the terms of the will must be obeyed, and I do not believe, although it is very indefinite from what is given above, that the father intended that the son should so invest the property that at the son's death it would all go to the niece.

◈

Divorce Laws of New Jersey

C. P. C., New Jersey—The following are laid down as the causes for divorce in New Jersey:

I. Decrees of nullity of marriage may be rendered where (a) either of the parties had another wife or husband living at the time of the marriage; (b) the parties are within the degrees prohibited by law.

II. Divorces from the bond of matrimony may be decreed in the following cases:

(a) Adultery by either party.

(b) Wilful, continued and obstinate desertion for the term of two years.

(c) Where either of the parties was incurably impotent at the time of the marriage or was incapable of consenting thereto and the marriage not subsequently ratified.

III. Divorces from bed and board forever or for a limited period may be decreed for extreme cruelty in either party.

While you might not be able to get an absolute decree you might get one from what is termed from "bed and board" upon the ground of extreme cruelty, but of this I am not sure. You certainly would be entitled to some relief under the facts you have stated if you are entirely without fault. However you would be required to employ an attorney to bring your action, and he could advise you more fully in reference to the same.

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DECEMBER 15th ISSUE

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We are making up our Christmas mailing list now, and if your subscription has run out, we shall have to drop your name at once.

Read carefully the extraordinary announcements on pages 27 and 31 and

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otherwise you will not get the great Christmas number, the famous picture, "Jack's Christmas Prayer," and you will lose the thrilling adventures of Miss Roosevelt's heroine. We do not want a single subscriber to miss all these good things because he has forgotten to renew.

FARM AND FIRESIDE, SPRINGFIELD, OHIO.

Wit and Humor

Not "We"

SENATOR SPOONER, of Wisconsin, according to the Milwaukee "Sentinel," is a successful hunter of big game. On one occasion he had as a guide, "Bill" Murray, and was out looking for bear or deer, when Murray suddenly threw up his rifle and fired. The senator saw an animal fall heavily and called, "We've got him this time, 'Bill.'"

"We!" sneered the guide. "No we about it. I killed him plain enough."

Quickly making their way to where their quarry lay, they found a fine specimen of Jersey calf.

"We've killed somebody's calf!" yelled the guide.

Senator Spooner gave him a withering look and said, "William, you should be more particular in your choice of pronouns. 'We' isn't adapted to this particular instance."

◈

His One Experience

When Mr. Gage was urged by an attractive young woman to buy a set of encyclopedias on the instalment plan, he turned round in his chair and surveyed her with a benevolent but firm expression.

"No, ma'am," he said, decidedly, "none of these 'continued in our next' books for me!

"I once boarded to a place where they were taking a set of encyclopedias just that way. I was keeping company with the young woman who afterward married the man who was also keeping company with her—and me.

"She said one night, when we were all three sitting out under the stars, and wishing one of us wasn't there, that she'd give a good deal to know about Jupiter—how far off 'twas and everything. She said she'd once known a young man who had possessed all such knowledge, but he had passed away.

"Somehow I gathered from her tone that if he hadn't passed away he would have been with her then instead of us. And I remembered that the very last number of that encyclopedia was 'J to L.'

"So after the other man had said that he was 'sorry the drug business took up so much time he couldn't study the stars,' I said that if she could just wait till I slipped across the street and got my overcoat, for I felt a little chilly, I could tell her a few facts about Jupiter that I'd happened to pick up.

"Then I lit out across the street and into the room where that encyclopedia was kept, and opened the 'J to L.' Of course you know what I found—'Jupiter, see Planetary System!'

"When I got back, she and the drug clerk were starting for a stroll, and she said, 'As I notice you haven't found your overcoat, we won't urge you to go. But I shall be glad to hear about Jupiter some other evening.'

"He evidently told her some facts about the drug business that made up for what he didn't know about stars; they were engaged inside of a week. As for me, I bought a 'Handy Compendium of Information' in one volume, and it'll do me, as I've never married. I'll bid you good-morning, ma'am."—Youth's Companion.

◈

Add Years to Your Life

The veteran always got up at 6 o'clock in the morning.

"I used to get up at 8," he said. "By getting up at 6 I have added ten years to my life.

"Consider," he went on persuasively. "The difference between rising every morning at 6 and 8 in the course of forty years amounts to 29,200 hours, or three years and nearly a half. This is equal to eight hours a day for ten years. Thus, you see, by rising at 6 instead of 8 you add ten solid years to your life."

"Wonderful," said the veteran's listener. "I shall assuredly adopt your plan. Only, instead of getting up two hours earlier in the morning I'll go to bed two hours later every night."—New York Press.

The Sketch

THE HAT TRICK—A NEW VERSION

The Disheveled and Bruised Gentleman—"Have you seen anything of a hat that dropped out of a window of that train?"
The Innocent Porter—"Yessir. I chucked it back ter the guard."
The Disheveled and Bruised Gentleman—"Lord! And I've jumped out after it.

Wit and Humor

Disarmed, But Not Disabled

"I thought it was a good time to ask the old gentleman for his daughter. He is suffering from a recently broken arm."

"Well."

"I found I made a mistake in not waiting until he broke a leg."—Cleveland Plain Dealer.

◈

Dangerous Carelessness

Two men were sentenced by a self-appointed court to be hanged for horse-stealing. The place selected for the execution was the middle of a trestle bridge spanning a river. The first noose was insecurely tied and the

Old Gentleman—"Do you think the auto will ever displace the horse?"
Driver—"Yes. It will if we hit him squarely."

prisoner dropped into the river. He swam to the shore and made good his escape. As they were adjusting the rope for the remaining prisoner the latter drawled:

"Say, pards, make sure of the knot this time, will yer? 'Cause I can't swim."—Everybody's.

◈

The Wrong Number

Patrick, lately over, was working in the yards of a railroad. One day he happened to be in the yard office when the force was out. The telephone rang very vigorously several times, and at last he decided it ought to be answered. He walked over to the instrument, took down the receiver and put his mouth to the transmitter, just as he had seen others do.

"Hillo!" he called.

"Hello!" answered the voice at the other end of the line. "Is this eight-six-one-five-nine?"

"Aw, g'wan! Phwat d'ye think oi am—a box-car?"—Harper's Monthly.

◈

The New Football Rules

"How do these new football rules compare with the old ones?"

"Well, last season at this time my boy had a stiff neck, a bruised head and a twisted ankle. This year he has a sprained wrist, a broken rib and a lot of wrenched tendons. I guess the rules are about the same."—Cleveland Plain Dealer.

◈

A Sense of Security

"There is a whole lot to be said on both sides of the trust question."

"Yes," answered Mr. Dustin Stax.

Mr. Boarder—"How do you account for the presence of this piece of granite in the chicken salad?"
Mrs. Newlywed—"Well, you see, we get all our chickens from my uncle's farm, and he tells me he raises nothing but the pure Pymouth Rock breed."

"That's the beauty of it. By the time it all gets said we'll have enough dividends laid by not to worry over the decision."—Washington Star.

◈

Honors Easy

"What's the matter?" demanded the customer, as the tobacconist examined his nickel; "that coin's all right."

"Oh! it'll pass, I guess," replied the tobacconist; "but it isn't as good as it might be."

"Well, neither is this cigar."—Catholic Standard.

◈

We want those readers who have not started to read Maude Roosevelt's story, "The Strange Adventures of Helen Mortimer," to turn to page 13 of this issue and commence right now. We do not want any of our good friends to miss the treat this excellent story affords.

Always in Style

They were going through the furniture factory. Mrs. Jones was amazed at the great proportion of chairs. A writer in the Boston "Record" says she inquired the reason.

"Well, ma'am," responded the ingenious attendant, "you see, it's the dull season, and most of our furniture is out of style, but settin' never really goes out of fashion."

◈

Her Kind Heart

"Before we were married," complained his beautiful young wife, "you said you would be willing to die for me."

"Yes, dearie," the trembling old man replied, having missed the point of her remark; "and I meant every word of it. Why, I only live for you, my little girl."

Not having the heart to let him know, she locked herself in her room before permitting her tears to flow.—Chicago Record-Herald.

◈

Daft, but Canny

Frederick Ireland, a stenographer of the House of Representatives, at the convention of the National Association of Stenographers, at Atlantic City, said, apropos of a rash course:

"I can't approve of this action, because I am a foe to rashness. In handling the affairs of a great body of men I believe in prudence and carefulness. I am almost as prudent and careful as the weak-minded Scot of Peebles.

"This Scot, a silly look on his face,

AT THE PHONE
Amateur Farmer—"Is this the feed store?"
Answer—"Yes sir."
Farmer—"Send me up two bags of oats."
Answer—"Yes, sir—who's it for?"
Farmer—"Why it's for the jackass, you silly sausage."

was skating near the famous iron bridge of Peebles on a winter day.

"Some young ladies wished to skate under the bridge, but they did not know whether the ice was safe or not. So, approaching the Scot, the youngest and prettiest of them said:

"'Sanders, would you mind just gliding under the bridge and back, so as to test the ice?'

"The half-witted Sanders took off his cap and with a bow and a smile he replied:

"'Na, na! If I am daft I ken manners. Leddies first.'"—Philadelphia Bulletin.

◈

"Ignorance of the law," said the judge, "excuses no one."

"That being the case," rejoined the prisoner, "It's a wonder the jury didn't find my lawyer guilty."—Chicago Daily News.

◈

Not on the Job

An eminent lawyer with a large practise before the Supreme Court of the United States enjoys telling of a tremendous jolt to his youthful vanity in the early days when he made a specialty of criminal cases.

He had been retained by a man charged with larceny in Pennsylvania, and as the evidence was conclusive, had advised his client to plead guilty.

"You have a bad record, you know," said the lawyer, "and you have practically confessed your guilt. I should say that you will be sentenced to about three years."

This last completely dumfounded the accused. He looked about his cell vacantly for several minutes before turning to his attorney. When he did it was to say:

"Will you kindly step out and get me a good lawyer?"—Harper's Weekly.

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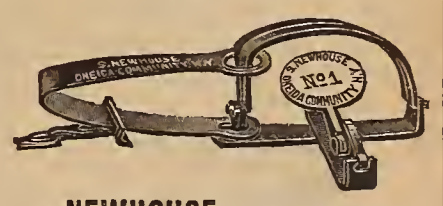

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See Page 24 for Other Designs

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No. 680—Kimono with Yoke
Pattern cut in one size only. Quantity of material required, three and one half yards of twenty-seven inch material, or two and one half yards of thirty-six-inch material, with one and one eighth yards of twenty-two-inch material for trimming bands. 10 cents.

The Farmer Boy and the City

[CONTINUED FROM PAGE 19]

of the "sporty" youth, the cheap and vulgar theater and the vulgar amusements of all kinds. He will not at first have much money to spend for amusement. Indeed, he will do well if he secures a position that will enable him to pay his board and room in a respectable place while he is "working up" to something better in the way of a position.

So many boys in whom the fever for the city breaks out and rages with such violence have utterly false conceptions of the city and the opportunities it has to offer to the stranger within its gates. It is too true that "To them the city seems high life, fine houses, beautiful lawns, lighted and paved streets, people well dressed, working in shady offices, crowds on the streets, bands of music, pretty girls, churches, theaters, games, society, comfort. They do not know and cannot be made to believe, except by experience, that every city has a Whitechapel where vice reigns supreme, and which no city in the world has been able to control fully, much less entirely suppress. They do not know the careworn faces filled with failures, tailings so to speak, which the city has hidden out of the way—faces that looked out of the windows on the back streets. If you think, my dear boy, that town life is easier than country life, on the whole, or that it gives more average comfort, or that it has less care or requires less exertion, or that, on the average, it makes better men, then you are mistaken. The farm boys who came to town and, after ten, fifteen, or twenty years of close application, live in those fine houses and run those large establishments and shape the policies of the city and state are of a different class altogether. They are the boys who learned on the farm to ride and shoot and tell the truth. The first gave them courage, the second accuracy and steadiness of purpose, and the third, that integrity that lies at the basis of all success in life: in short, the qualities that make a man a success on the farm will make him a success in the city, and the qualities that make him a success in the city make him a success on the farm.

The conditions of success in life are very much the same the world over. A wise Providence has decreed that work shall be the common lot of all who live honorably and worthy the respect of their fellowmen. The best people in the world are in harmony with Carlyle, who has said: "The modern majesty consists in work. What a man can do is his greatest ornament, and he always consults his dignity by doing it." It might be added that he adds to his dignity and character by doing it to the very best of his ability.

The boy who wants to go from the farm to the city for the purpose of having an easier time, for the purpose of taking up his residence on "Easy Street," is the boy who is doomed to disappointment and failure. His ideals are too low and his ambition too feeble for him to be successful anywhere. The boy who seeks to escape the "modern majesty" of work is often the boy who yields most readily to the pitfalls set for the unsophisticated and the idle in the city. It is this type of a boy who is seeking for a "short cut" to riches. He believes in the pernicious "get-rich-quick" theories that often seem so plausible, but that are in reality delusive and untenable. It is a sad day in the life of any boy when he feels that there are easier and better ways of securing a dollar than by honestly earning it, and the dollar earned by honest toil on the farm is of far greater value than many dollars earned by some of the questionable methods in vogue in the city. The modern thirst for wealth for its own sake is greatly to be deplored and is in many instances the source of unrest among the boys on the farm. And I feel sure that many of the boys who do leave the farm for the city often long with intense longing for the comforts and the peacefulness of the farm homes they have left behind them. I remember that I once asked a boy who had lived a year in the city if he honestly and truly liked it better than he had liked the farm from which he had come, and after a moment's hesitation he said frankly:

"No, I do not."

"Then why do you not return to the farm?" I asked.

"To be laughed at and told that I had made a fizzle of it!" he said.

"Not much!"

It is a false pride of this kind that has kept many a homesick country boy from going back to the farm when the city has become distasteful to him, and he has reason for feeling that it is doubtful if he is ever likely to do much better financially in the city than he would have done in the country.

We read a good deal in recent years about people wanting to get "back to the soil," and the charms of the country were never so highly appreciated as now, and never before were country people in possession of so many of the conveniences of city life. They have their telephones and daily mail and, in some places, electric lights. Many of their homes have bath-rooms and running water and all the conveniences of the modern city house. The labor-saving machine of every kind grows in number and variety. The prosperous farmer of today enjoys a degree of comfort unknown to the farmer of half a century ago. Of course he is a harder worker, but the millionaire in the city is also a hard worker, and his cares increase with his wealth. The writer has lived a good many years in the country, and twenty-five years in large cities, and he unhesitatingly gives the preference to the country as a place in which to really "enjoy life." But the farmer boy who knows nothing of the city is not likely to feel this way about it, and to the hundreds of his kind who are determined to leave the farm for the city I say, "Go if you will and must, but do your best to go with an intelligent understanding of what is before you. Cherish no illusions regarding your chances of success, and make up your mind to the fact that you must face fierce competition for the desirable positions, and that he who 'wins out' must do so through actual superiority over many determined competitors. Never make the blunder of going to a city with just money enough to carry you there; and when you do reach the city put yourself under the best influence possible through the medium of some church or religious organization. Do not lose your head by the unusual attractions by which you are surrounded, and have nothing to do with any of the short cuts to wealth. Present as neat and tidy an appearance as possible when applying for even the humblest position, and bear in mind that the boy who talks little and does his work quietly and faithfully is the boy who is most likely to commend himself to his employer. Do not try to draw the line too closely when it comes to defining the duties of your position, and refuse to do things you feel that it is 'not your place to do.' Your employer has, after all, bought your time for so many hours of the day, and it is really your 'place' to do what he asks you to do during those hours. And if, after a trial of the city life, you begin to have a real longing for the old farm, why, get back to it as proof that perhaps you were 'cut out' for a farmer, after all, and that the young fellow who is determined to make a success of his life on the farm can achieve that very laudable ambition."

◈

A Flash of Temper

[CONTINUED FROM PAGE 17]

"Steve, boy, are you gone crazy? Don't ye dare breathe another loud breath on this mesa!" The man laid a heavy hand on his shoulder. "Why, boy, do ye know they'd skin ye alive?"

"Well, mebbe they'd be doin' that to father, if they couldn't get me," the boy whispered; "an' it was me that did the killing."

"Sure enough; but they ain't goin' to be no martyrin' done on that account this trip. Look here; Colonel Burns can't afford no Injun war no more than you kin, an hes sent us cowboys over here with the two hundred dollars—sort o' ransom money. So they'll be bought off. You keep dark! Every buck o' the tribe is out, they say, a prowlin' around the hills, an' we hurried over to git in ahead of a row. Blamed queer you didn't run agin some of 'em. Don't believe no two hundred dollars would save ye if ye was ketched here now."

As they talked a party of perhaps a dozen Indians rode up to them, so near that Steve might have touched one of the foremost riders with his hand; but the darkness was merciful.

Fischer parleyed with them in Spanish. They accepted the money with a great deal of chatter and many "buenos," together with promises of peace from the chief of the tribe. Then the little company of white men rode away.

"I feel as if I had died—died a thousand deaths," Steve said, "an' wasn't myself at all."

"I don't suppose you ever will be quite the same feller agin, Steve," Fischer said, seriously; and he never was.

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Farm and Fireside wants to give every reader who accepts one of these Last Chance Offers a special gift.

This is to be a surprise.

The gift is intended chiefly for the ladies of the family, but it will be appreciated by all.

There is no charge at all for this additional gift, which will bring Christmas cheer and good-will into the home of every old friend of **Farm and Fireside** who accepts one of these offers.

The Editor of THE FIRESIDE DEPARTMENTS will send this Christmas present to you with his compliments. And take our word for it that every one in your home will be greatly pleased by this token of his appreciation.

RUSH THIS ORDER BLANK

Editor FARM AND FIRESIDE,
Springfield, Ohio.

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Christmas Present

from the publishers of FARM AND FIRESIDE, this present to be sent absolutely without expense to the sender of this coupon.

Austria-Hungary

[CONTINUED FROM PAGE 11]

The late cardinal-archbishop of that country used to send $20,000 every year to Rome as a contribution to the fund known as "Peter's pence." The presence of priests mingling with the law-makers on the floor of parliament is another indication of the far-reaching influence of the church. The fondness of the people for festive celebrations of a religious character is evinced by the fact that the congregation in one prominent village still celebrate the anniversary of the installation of their bishop, although the good man has been dead these many years.

One of the most notable things about Vienna is the predominance of the Jews. Prior to 1840 no Jew was even permitted to spend the night in the city without a police permit, and the emancipation of the race dates back only to 1856. The manner in which they have multiplied and made their impress upon the life of the place is almost incredible. In one district there are now 40,000 Jewish residents, and there are more of them in Austria at present than in any other country in the world, with the exception of Russia.

A majority of all the doctors and lawyers in Vienna are Hebrews; every newspaper but one is controlled by them; and out of 18,400 bankers and money changers only two are Christians. The Jews also control the funds of the monarchy, and there is absolutely no profession or branch of industry which does not have members of this enterprising race among its members. The city directory of Vienna shows that there are five hundred families by the name of Kohn, and on the basis of five persons to each family, this would make twenty-five hundred residents of that one name alone.

There is hardly any place in the world where the tipping system is so generally established as in Vienna. One is expected to tip even the street-car conductors, and you must also pay the porter for the trouble of opening the door of your own house if you happen to be out after ten o'clock at night. In the cafés one must fee three different attendants, that is, the head-waiter, the boy who serves the drinks, and the attendant who brings your food, but the total which all three of them receive is less than ten cents. Despite the fact that gratuities are so universally given in Austria, the laboring people of this country are extremely poorly paid.

◈

Ohio's Exhibits at Jamestown Exposition

The exposition to be held at Jamestown, Va., May to December, 1907, will be one of the most notable in the history of the country. Its location makes it especially convenient for our densely populated East, also for the crowded countries of Europe. The opportunity it will afford exhibitors should be taken advantage of, and should have its effects upon the markets of the world. Ohio's brilliant past should not be allowed to suffer by comparison, for the productiveness of the past season has been in many directions unprecedented.

For these and other reasons everybody is requested to take part, especially granges and farmers' clubs, to as great an extent as possible.

The appropriation is small in proportion to the magnitude of the undertaking, and to keep our state in the position it belongs a great many donations will have to be made of corn, all the cereals, seeds, fruits, vegetables, honey, maple syrup, and all the products of the farm, garden and orchard.

Now is the time to pick out the best of whatever you have, and help to hold up the banner of Ohio. A dozen or two fine ears of corn, a peck of wheat, a bushel of apples, of assorted varieties if necessary, or anything fine your soil may have produced. "Do it now."

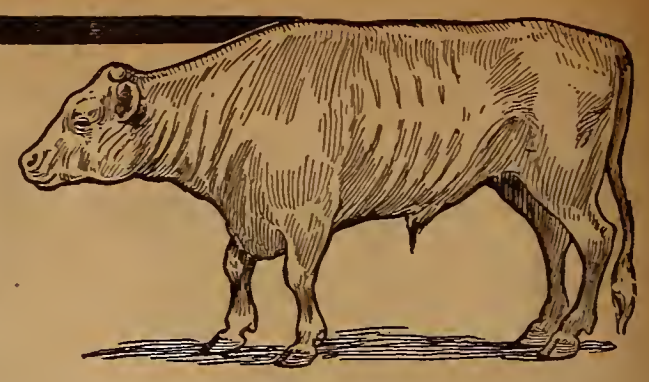
Drop a postal card to the undersigned, and he will send you full shipping directions and bear the cost of transportation.

We would also greatly appreciate the favor if all Ohio editors who notice this article would publish the same, and send marked copies of their papers.

Please do not delay, for timely help is doubly helpful.

R. J. TUSSING.
Canal Winchester, Ohio.
Superintendent Ohio Agricultural and Horticultural Exhibits, Jamestown Exposition.

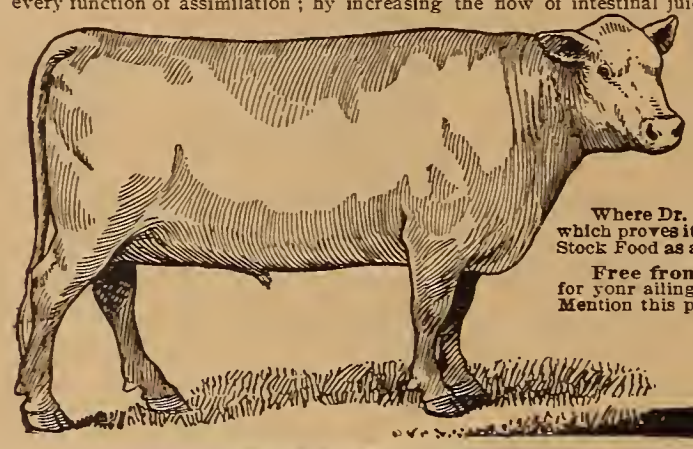
From Scrawn to Brawn



The difference between the scrawny animal and the thrifty one is not usually due to the amount of food **consumed** but the amount **digested.** In fact, the scrawny animal frequently consumes more. It is a vital point to see that there is a gain in weight each succeeding day sufficient to cover cost of feed and labor, otherwise, you are feeding at a loss. Such a condition can be brought about, and the scrawny animal converted into a brawny, thrifty, profitable one, by adding

DR HESS STOCK FOOD A TONIC

the prescription of Dr. Hess (M. D., D. V. S.) to the regular ration twice a day. It compels the rapid development of bone, muscle, milk fat, etc., and insures perfect health and condition. It produces this extra profit by supplying the animal with bitter tonics, which improve the digestion, strengthening every function of assimilation; by increasing the flow of intestinal juices; by stimulating the parastaltic action of the bowels (that churning motion that brings the contents of the bowels in constant contact with the minute cells which absorb the nutrition); by supplying iron for the blood, nitrates to assist nature in expelling waste material from the system; and by supplying laxatives to regulate the bowels. Professors Quitman, Winslow, Dun, and all the noted medical writers indorse these ingredients for producing the results above mentioned. Besides, Dr. Hess Stock Food is sold on **a Written Guarantee.**



100 lbs. $5.00; 25-lb. pail $1.60 Except in Canada and Extreme West and South.
Smaller quantities at a slight advance.

Where Dr. Hess Stock Food differs in particular **is in the dose**—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic.

Free from the 1st to the 10th of each month—Dr. Hess (M. D., D. V. S.) will prescribe for your ailing animals. You can have his 96 page Veterinary Book any time for the asking. Mention this paper.

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Instant Louse Killer Kills Lice

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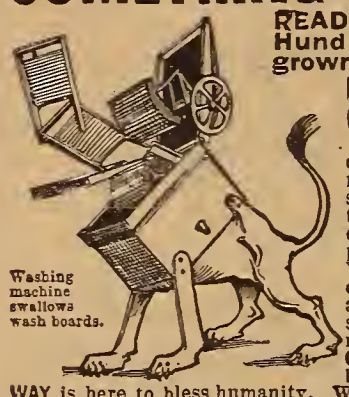
READERS LISTEN SHARP, DON'T MISS—BEST THING EVER HAPPENED!
Hundred years coming, here at last, full grown—so startling will say it's impossible—miracles don't happen, but wait, don't worry.

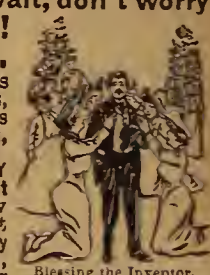
LADIES, YOUR PRAYERS ANSWERED—THERE'S NO MORE WASH DAY!
GLORY HALLELUJAH! IT'S DEAD! LAID AWAY! WIPED OUT FOREVER.



Washing machine swallows wash boards.

The world's watched for the man to cut wash day in two. He lives—taken more than half—left only minutes—cut so much wash day's all over, changed—there's new way cleaning clothes—different from anything known—new principals, ideas, methods, **NEW EVERYTHING.** Wonderful, but true, family washing cleaned with no more work than getting a simple meal, less time—no rubbing, squeezing, pounding, packing, pressing, no injury—no drudgery—that's past. Good-by wash boards, washing machines, laundries—throw them away—the **EASY WAY** is here to bless humanity. Women have prayed for death of wash day—for clean clothes without rubbing—ruining health, looks—when they could wash, get dinner, see friends, indulge in recreation without fatigue—when women thought no more of washing clothes than to get a simple meal. That glorious day has come. The world's full wash boards, so-called washing machines, yet wash day same as ever—still long, dreary day—no easier, no shorter, no better. Use wash board or washing machine, it's drudgery, long hours, hard work—backache—a day no woman forgets. Invention that killed wash day named **EASY WAY**—name tells whole story—easy on clothes—easy used—kept clean—handled—easy on women—makes washing easy—easy to buy and sell. Not called a machine—powers inside concealed—caution the way it gets dirt—has awful appetite for dirt—increases more it gets—goes after all the dirt in all the clothes at same time—little, but mighty—silent, but powerful—uses no spirits, yet works in darkness. **OPERATED ON STOVE**—move knob occasionally—that's all—scarcely anything to do but wait between batches—child can do it. All iron and steel—always ready—sets away on shelf. Entirely unlike old methods. Verily, wash day is dead—**EASY WAY** settled that—woman's joy, satisfaction, their God-send. Less than an hour cleans washing which before took all day—cleans all clothes, finest laces, curtains, etc., in about one-tenth time without rubbing, squeezing, packing, pressing—without chemicals to injure goods. Saves 52 days drudgery yearly—makes woman's hardest work easiest household duty—saves clothes, labor, fuel, health, looks. Surprises all—sounds strange, is strange, but listen, it's no experiment, going on daily. You can do it.

Throw them away.



Blessing the Inventor.

MRS. FRITTER, Norwood, writes:—"With **EASY WAY** I clean a week's washing in less than an hour without rubbing." W. BROWN, Ohio, writes:—"Wash day now wash hour—**EASY WAY** does the work with perfect success." J. H. BARRETT, Ark., after ordering 38 Easy Ways, says:—"I don't understand why it does the work, but it does. You have the grandest invention I ever heard of. People are skeptical; have to be shown." J. W. MYERS, Ga., says:—"Find check to cover one dozen 'Easy Ways.' Easy Way greatest invention for womanhood, forever abolishing miserable wash day. Saves me turning old washer for hours. I am ready to have old washer accompany all others to the Dump. Sells itself." I. BECK, Ga., writes:—"Enclose order. Find Easy Way as represented. Worked 4 days and have 15 orders." J. T. PEAY, N. C., says:—"Been out 2 days—sold 1 dozen, for which enclose order. Everybody is carried away that sees it work." CHAS. BOWLES, O., writes:—"Where tried have given general satisfaction." **Guaranteed,** everything proven, old house, responsible, capital $100,000.00. **Price only $5.00 complete, ready to use—sent to any address. Not sold in stores.**

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MANAGERS—MEN OR WOMEN—at home or traveling, all or part time—showing—taking orders—appointing agents. **"EASY WAY"** new. **Nothing like it.** Demand world-wide—agents reaping harvest of dollars. When operated people stop, look, listen, crowd, push, squeeze, miss engagements, get excited—watch it as though a miracle occurred. 12 see—10 buy. **Write today for special Agents Plan.** World unsupplied. Act quick.

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FARM AND FIRESIDE

CHRISTMAS NUMBER — AN ILLUSTRATED FARM AND FAMILY JOURNAL — EASTERN EDITION

Vol. XXX. No. 6 — SPRINGFIELD, OHIO, DECEMBER 15, 1906 — TERMS {25 CENTS A YEAR / 24 NUMBERS

Alfalfa, the Wonderful

By F. D. Coburn

ALFALFA, while comparatively new in America, is probably one of the oldest forage plants known. Its history has been traced nearly to the beginning of mankind, which causes those acquainted with its qualities to wonder that its capabilities were not sooner realized and its culture long since become a large factor in our agriculture. It is undoubtedly destined to come into general use, and one of the most important movements which has occurred in American agriculture is one now in progress having for its purpose the widespread introduction of alfalfa as a hay and forage crop. In truth, it is now grown successfully in about every state in the Union, whereas a few years ago its production was thought to be practically restricted to the irrigated valleys of the West. Indeed, in the not distant past, the plant was deemed adapted only to certain conditions found in the so-called "semi-arid section," but it is now produced under greatly varying conditions of soil, climate and altitude.

It thrives more or less generally throughout the United States, and indicating something of its adaptability is the fact that it is being successfully grown in the alluvial bottom lands of the Red River in Louisiana, the Mississippi River from Minnesota to New Orleans, the Yazoo delta in Mississippi, the black prairie belt of Mississippi and Alabama, the bluegrass region from Tennessee to New York and Iowa, and various isolated but favorable localities elsewhere, aside from the western areas that produce it so abundantly. Encouraging experiments in New England show that the area of alfalfa there may become not inconsiderable with a better knowledge of requirements, and each passing year marks an extension northward of the alfalfa area in Minnesota, Wisconsin and New York, and it is even grown with fair success so far north as Manitoba, Assiniboia, and at various places in British Columbia and Alberta.

Providentially it finds its greatest prosperity in the region where corn, cattle and hog production are the predominating industries. The hay is exceedingly rich in protein, the property in which corn and most other crops are deficient. It serves admirably to balance the feeding ration, and saves the purchase of high-priced feeds, such as bran, for instance, which, pound for pound, it approximates in value as a feed stuff. A ton of alfalfa can be produced at a cost of, say, $2 to $4, whereas wheat bran costs from $15 to $25 per ton, and from three to five cuttings of alfalfa can be obtained from an acre of land each season, averaging perhaps a ton of hay per acre for each cutting. Further, it has been demonstrated that with alfalfa hay at $10 per ton and wheat bran at $20, the saving effected by substituting alfalfa for wheat bran would be $2.80 for every 100 pounds of butter and 19.8 cents for every 100 pounds of milk. Thus the farmer with alfalfa in competition with the one using bran could afford to sell his milk for 19.8 cents a hundred less than the latter receives, and his butter for about 3 cents a pound less. Wherever extensively grown alfalfa has revolutionized the conditions of agriculture, and its widespread cultivation in the so-called "corn-belt" will mark the beginning of a new era for the husbandman of that section, as it will increase the profits by greatly lessening the cost of commodities in the making of which alfalfa is intelligently used, and decrease in cost of production is the principal point from whence the increased profits of the future must be expected.

However highly esteemed red clover may be, it can scarcely be compared with alfalfa in value of annual product or feeding quality, and west of where red clover can be reliably grown the worth of the alfalfa crop as an adjunct in the chief industries of that region is immeasurable. It is the crop that has opened up vast possibilities there for the ranchman and dairyman, in the production of meat and milk at the minimum cost. It is adapted to both the extensive and intensive farmer. It can be grown in large areas successfully, while the farmer who has tried it in a smaller way finds it indispensable. Besides possessing these qualities it is the renovator of soils par excellence, and the man who thoroughly understands its possibilities adopts some desirable rotation of crops that includes alfalfa. Its value in the rotation is at once recognized when it is stated that alfalfa is a legume, and enriches rather than depletes the soil in which it grows, supplying it with nitrogen gathered from the atmosphere in abundance for other succeeding crops. This nitrogen is the most important plant food, and the element likely to become, in ordinary agriculture, first exhausted. Alfalfa restores and increases the fertility of the soil. Ordinarily the roots of plants do not store nitrogen from the air, but it is estimated that the roots of alfalfa will leave in the soil eight or ten times as much nitrogen as was there before.

The mechanical effect of its root-growth constitutes one of the plant's greatest virtues. By its long penetrating roots, reaching to great depths, and thereby having unusual powers of resistance to protracted dry weather, alfalfa constitutes the most efficient, deep-reaching subsoiler and renovator we have.

But, aside from its value as a fertilizer, its surpassing excellence as a food for all kinds of live stock affords sufficient incentive for its growing, and as a profit-bringer in the form of hay, or condensed into beef, pork, mutton, or products of the cow, it has no equal. It yields three, four, or more cuttings each year as compared with the one or two produced by red clover, which in many parts of the United States is considered as the most useful forage plant grown. Then, too, clover will ordinarily survive but two years, while alfalfa will last from ten to one hundred years, thus saving many

[CONCLUDED ON PAGE 7]

A Fourth Cutting of Alfalfa (Unirrigated) on Farm of J. C. Mohler, in Shawnee County, Kansas, August 28, 1906. A Fifth Cutting, Somewhat Lighter, Was Made October 9-10, 1906

FARM AND FIRESIDE

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SPRINGFIELD, OHIO

Subscriptions and all editorial letters should be sent to the offices at Springfield, Ohio, and letters for the Editor should be marked "Editor."

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The above rate includes the payment of postage by us. All subscriptions commence with the issue on press when the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post Office Money Orders, Bank Checks or Drafts. *When none of these can be procured,* send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. *Do not send checks on banks in small towns.*

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelope and get lost.

Postage Stamps will be received in payment for subscriptions in sums less than one dollar if for every 25 cents in stamps you add a one-cent stamp extra, as we must sell postage stamps at a loss.

When money is received, the date will be changed within four weeks, so that the label will answer for a receipt.

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 the label, to your letter of renewal.*

Discontinuances.—Subscribers wishing their paper discontinued should write us to that effect and pay up all their arrearages. If this is not done, it is assumed that the subscriber wishes the paper continued and intends to pay when convenient.

Always give your post office at the beginning of your letter.

January Fifteenth

FARM AND FIRESIDE will be our

Special Annual Issue.

Among the many other good things which it will contain is the beautiful colored supplement, which will be appreciated by everyone. You know how attractive the other two were, and this one is equally as pretty. Some may like it better. It represents a traveler in the Western mountains coming 'round a cliff when he meets a—well, we can't describe it. You'll have to see it to appreciate the title, "The Right of Way." Done in attractive colors and would look beautiful framed.

The World Travel Letters by Mr. Frederic J. Haskin will be continued next year. We told him how much our people appreciate his letters and asked him to get up something special for you. He has promised to give you something more interesting than ever, so don't fail to keep your subscription paid up. Look at the label to see that you are not in arrears. The special issue will be mailed to paid-in-advance subscribers only.

There's Nothing Too Good For Our People

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About Advertisements

FARM AND FIRESIDE does not print advertisements generally known as "readers" in its editorial or news columns.

Mention FARM AND FIRESIDE when you write to our advertisers, and we guarantee you fair and square treatment.

Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.

On page 4 is an announcement of a special cooperative subscription plan. Please look over this list of farm papers, select the one representing your own region, and, if you are not already familiar with it, request the publishers to send you a sample copy.

◈

In its fortieth annual session, held last month at Denver, the National Grange, representing 1,000,000 organized farmers, adopted a strong resolution opposing the movement for increasing newspaper postage "as being a backward instead of a forward step, contrary to the past policy of the government, contrary to the enlightened spirit of the age, a direct blow to education, and manifestly unnecessary, unreasonable and unjust."

◈

Agricultural Production

In his tenth annual report on the work of the Department of Agriculture Secretary Wilson says:

Taken at that point in production at which they acquire commercial value, the farm products of the year, estimated for every detail presented by the census, have a farm value of $6,794,000,000. This is $485,000,000 above the value of 1905, $635,000,000 above 1904, $877,000,000 above 1903, and $2,077,000,000 above the census for 1899.

The value of the farm products of 1906 was 8 per cent greater than that of 1905, 10 per cent over 1904, 15 per cent over 1903, and 44 per cent over 1899.

◆

Equitable Distribution

In the report to the National Grange of its executive committee appears the following clear-headed statement on the great problem of distribution:

"The statement is frequently made in our farm papers that the most important economic subject that confronts the farmers of America is 'scientific agriculture,' or, in other words, the science of making two blades of grass grow where one grew before. We disagree with their opinions. The great problems of production, not alone in agriculture, but in all lines of industry, have occupied by far the larger attention of the world for a long time. And these productive problems, and scientific farming especially, will undoubtedly receive increasing attention. Notwithstanding this increasing interest in improving productive methods, the progressive farmer no longer considers the question of how to produce more as being nearly so important as the other great question of how to keep for himself a larger share of the profits of what he has already produced.

"The great problem of this day and generation is distribution; equitable distribution or the 'square deal' as President Roosevelt has so happily phrased it. The producer and consumer must be brought closer together, and the special privilege classes, who rob both, must be eliminated. Not until the 'square deal' is fully established and monopoly completely annihilated can the questions of production again attain to their natural right position of first place. Until then, distribution must be our chief concern.

"The significant operation of the new rate laws and the increased powers of the interstate commerce commission, as urged and adopted by a preceding session of the National Grange, have already borne fruit. The eleven indictments returned by the United States grand jury at Minneapolis, which makes defendants of four railroad companies and several shippers, comes just at the right time, and shows the wisdom of the action taken by the National Grange in protesting against discrimination by common carriers. This must remind all corporations, which are not yet convinced, of the necessity of obeying the laws, and that there can be no peace for them except prompt acceptance of the new regulation laws as prescribed in the new rate bill. The small shipper must have an equal chance on all railroads. He must be given like service for like charges. Simple justice must be the rule of common carriers, and there can be no exception.

"The country, irrespective of party, will stand by the president in all that he does to enforce fair play. The more stubborn opposition to this reform, which is only the embodiment of common justice, the worse it will be for corporations or individuals who resist. Right will never give way to wrong and accept defeat. American institutions rest on the 'square deal' principle. It must be maintained as an act of national self-preservation.

◈

Government Control of Railways

One of the most interesting features of the Trans-Mississippi Commercial Congress was a passage-at-arms between E. H. Harriman, railroad president, and Secretary of State Root. Mr. Harriman, in an address, spoke against the increased power given in response to "general clamor" by federal legislation to the Interstate Commerce Commission. He objected to the law regulating rates, and intimated that the railways ought to have more power.

"It is often important to a country," said Mr. Harriman, "whether we do certain things, whether we develop a country or leave it dormant. Often we cannot give development a start because of the action of certain people for political prestige."

Mr. Harriman got an answer to his challenge. Secretary Root said:

"Mr. Harriman, I believe in his speech to-night would have us give more power to the railroads.

"The experience I gained from a knowledge of railroad business in the state of Missouri at a time when the railroads were competing for business led me to believe that the just means of regulating traffic and railway affairs is through the railways themselves. I believe that it is just to say that a wise law would be one that would force the railroads to combine in keeping the law—a law that would prevent the railroads from breaking the law.

"I repeat that the best regulation can be brought about by the railroads themselves if they will only do it. Their power, Mr. Harriman, should be supplemented by government control, such as would prevent them from doing wrong.

"It is nevertheless the case that a railroad, by special compensation or special rates, can help to build up a bigger and better business. Nevertheless, science of government always gives a chance. The privilege of the railroads in discriminating in the matter of special rates and compensations is too often abused, as we have seen. It is the common tendency of railroads to give advantage to the wealthy shipper against the weaker or smaller one.

"It is that tendency, so often displayed—a tendency to crush the weak. For this reason I say that it is necessary, it is essential to freedom and independence, that the railroads should be held under control to prevent discrimination. The slight advantage that the railroads would gain by more power—the power that Mr. Harriman asks for—would be so greatly offset by the evil that such a proposition would not be considered for a moment."

In these few words Mr. Root gives the sum and substance of the whole matter: the absolute necessity of government control to prevent the railroads from breaking the law.

As if to emphasize the force of Secretary Root's statement, the testimony given one week later before the Interstate Commerce Commission, at Salt Lake City, revealed gigantic conspiracies by certain western railroad and fuel companies to rob the public domain of coal, mineral and timber lands, to restrain trade by rate discrimination, and to maintain a monopoly of coal in the entire West. And, it is not strange to say, the railroads and coal companies representing the Harriman interests are deeply involved.

The vast transportation business of the country is controlled by a very few men, who do not really own the railroads. With them the railroad business is much more than the proper business of common carriers—the transportation of products from part of the country to another; it is an immense power they can wield—doing things in defiance of law—to make or break other businesses. By means of illegal discriminations and rebates they can build up any particular business into a monopoly, or crush it; they can bring prosperity to any community, or ruin it commercially, and they can exploit the whole country instead of developing any part of it.

It is this power for evil the mills of justice are now grinding, and they will grind it exceeding fine.

The control of the railroads is much safer in the hands of representatives of the people than in the hands of representatives of the "System."

J. C. Barnett.

◈

School Children Against Tussock Moth

For some years the beautiful shade trees in the streets of Buffalo, New York, have been greatly endangered by the attacks of the tussock moth, which has appeared in countless numbers. A Buffalo evening paper, however, has hit upon a rather simple method of fighting the pest, namely, by enlisting, through prizes in money, the coöperation of the schoolchildren in the good work. A number of prizes, ranging from $1 to $20 each, were offered this fall for the largest number of egg masses gathered. The first prize of $20 was awarded a few days ago to a little Italian boy who had gathered no less than 123,550 egg masses, while 7,000 egg masses had to be credited to the youngster who received the last prize ($1).

The schoolchildren have done well. Their organized and concerted warfare is the means of saving Buffalo's shade trees from one of the greatest and most destructive pests that has ever threatened their existence. But the city has not done so well by the children. They have worked too cheap. Buffalo could have afforded to spend quite a little sum rather than lose her shade trees; and if the city authorities should have no legal right in expending money for so worthy a purpose, it seems that the individual home owners could and should have done it.

◈

Controlling the Commission Dealer

Commenting on the efforts of the Department of Agriculture for the promotion of the bill which was introduced in the last session of Congress, and to be vigorously pushed in the next, having in view the protection of shippers from dishonest commission men, the "California Fruit Grower" says:

"The object is a worthy one, perhaps, but we doubt the possibility of legislating all dishonest people into honest ones, and if commission men, why not every other line of trade; they all have them. The most efficacious way to prevent being defrauded is to exercise more care in selecting those to whom you entrust your goods."

The commission man seems to be an especially fit subject for legislation of the kind in view, as he is made the custodian of the shipper's goods and money, without having given bond therefor. The very least that should be done with him is to require him to take out a federal license and give bond to a proper amount. Every agent who handles other people's money should be willing to give security for it. This would help the honest commission man, and cut off the chance for the dishonest one to collect a lot of money for the shippers, and then skip out with the money, as is now so often done. Until such a law is passed, however, care in the selection of a trustworthy commission man is about the only thing to prevent losses.

T. Greiner

JACK'S CHRISTMAS PRAYER—"He plumped down suddenly in his little flannel nightgown, and after the Lord's Prayer added one of home composition, in which he prayed that he might be a brave boy, and might never grumble or be mean." (Illustrating "The Man Who Gained the World" in the Magazine and Feature Section)

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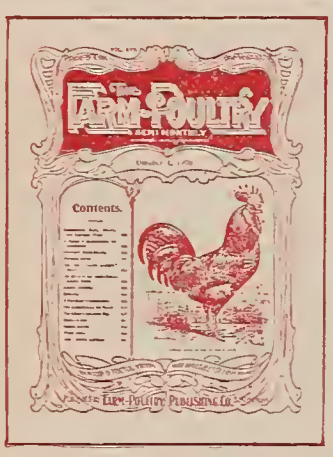

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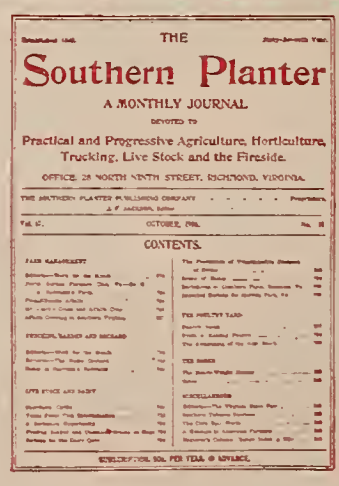

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About Rural Affairs

The Dangerous Match

A FEW days ago, the four-year-old child of a neighbor, a cute and lovable little boy, met death in its most terrible and most agonizing form. His father being absent and his mother still in bed, early one morning, the little chap was sitting on the floor of the bedroom, amusing himself by striking matches on the floor. Suddenly his "nighty" caught fire, and although his cries of distress soon brought his mother to his side, the poor child was so badly burned by the time the mother succeeded in smothering the flames, that after three or four hours of terrible suffering, death came as a relief.

The match-box presents quite a problem in the average rural home. Every little while we find our boys, youngsters of tender age (5 to 9 years), with a lot of matches in their pockets, or striking matches for fun, in the bedroom, in the barn, outdoors, anywhere or everywhere, or setting fire to heaps of rubbish or old papers in places where buildings are in danger of catching fire. We have perhaps two ways of meeting this problem. One is to punish the youngsters so severely for playing with matches that fear will overcome their natural inclination to play with matches, or to keep the matches carefully locked up in a safe where the children cannot get them.

In the household we have use for matches so frequently, and in so many places, that for convenience' sake we like to have them easily accessible in almost every room. But with young children in the house, it is a dangerous practise. We might better have to go a little out of our way everytime we want a match, and to have to get it from a supply safely stored in a match-safe, than to meet the loss of house or barn by fire, or worse, have one of our children roasted alive. Let us look more carefully after the matches hereafter. They are dangerous.

◈

Bird Studies

"Consistency, thou art indeed a jewel;" but this jewel does not usually ornament our treatment of the bird question. For instance, we have put the blackbird on our blacklist. When, some years ago, flocks of these birds, numbering thousands, came down upon my magnificent cornfield, and utterly spoiled the then just ripening ears, or when smaller numbers of them pulled up row after row of corn plants just breaking through the ground, I condemned this bird as one of the greatest nuisances that the farmer has to contend with among bird life. On the other hand, when (as for instance this past season) the blackbird finds so much other, more congenial food (probably of insect character) that he leaves the tenderest, sweet corn plants untouched, while the robin eats our cherries, we are liable to praise the blackbird at the expense of the robin.

Dr. Walter B. Barrows, Professor of Zoölogy and Physiology at the Michigan Agricultural College, who has made a special study of bird life in his state, recently said:

"The blackbird is no more hostile to the farmer than is the robin; but the farmer has a tremendous prejudice against the blackbird, and any attempt to protect him by law, as the robin is protected, would raise a storm of protest. The blackbird does not take any more farm produce than the robin, and he fully equals the robin in his attacks upon harmful insects. The natural inclination is to exaggerate the harmful influence of birds with respect to agriculture, anyhow. It is only in those parts of Michigan where cherry trees are few and the birds are many that much complaint is heard. For instance, in the city, where there may be but one cherry tree in ten blocks, the ravages of the robin are very noticeable; but you don't hear much complaint from the large fruit growers on the shores of Lake Michigan, where there is so much fruit that the amount taken by the birds is infinitesimal."

That the robin can be much more destructive to cherries and other fruits (even where these are grown in fairly large quantities, and when the natural local conditions are especially favorable for the rapid increase of the bird) may be inferred from Professor Barrows' remarks, has been frequently demonstrated to my sorrow. But the robin does not always, or everywhere, act thus. Neither is the blackbird, nor the English sparrow, always a nuisance. In fact both birds deserve great credit for picking up a good many grubs and other injurious insects. I have often spoken well of the English sparrow. Yet this fall a flock of thousands of them has taken nearly every easily accessible kernel of buckwheat from a two-acre field, the sheaves never having been dry enough to be hauled to the barn. In respect to bird life I suppose we have to take the bitter with the sweet, and it seems to me wrong, to protect one bird and put a premium on the destruction of another. All birds, except legitimate game birds, should be protected, with the proviso that nothing shall prevent the producer to protect his property against any bird when it becomes excessive in numbers, and dangerously destructive.

◈

Breeding Young Heifers

Like a good many small farmers and gardeners, I keep cows for family use mainly, disposing of what surplus we may have of butter, etc., to neighbors who do not have the privilege of keeping cows. This means that we usually have two calves to dispose of every winter or early spring. A good cow's sound heifer calf I consider too good to be killed. The best thing to do with it is to make a good cow of it.

Then I frequently have a heifer gradually growing to be a cow. It has always been a problem with me how soon to breed a heifer. Farmers, and expert breeders among them, are not wholly agreed on this point. In a bulletin just issued by the Michigan State Experiment Station (No. 241, September, 1906), on the Improvement of Michigan Cattle, Prof. R. S. Shaw says about the evil effects of breeding immature females: "During the past decade or two there has been a growing tendency to breed heifers at an early age. The men who advocate and practise the breeding of heifers so as to produce calves under or about twenty months of age, are extremely numerous. In fact, the practise has been carried on to such an extent that in many localities mature cows of some of the dairy breeds cannot be found bearing the same size that these types did twenty years ago. This practise is supported chiefly on the following grounds, namely: First, that the earlier a heifer is made to produce, the sooner she begins to make some financial return for her keep; second, the capabilities of the dairy cow can be increased if stimulated at an early age. There are those who claim not to object to lack of size in dairy cows, and also that the smaller cows are more profitable, but this latter claim has not yet been proven. The relative value of small versus large dairy cows as economic producers has not been determined, though much discussed. It is a notable fact, however, that the world's record makers and the majority of cows entered in the various advanced registry associations, are, in general, considerably above the average as to size. Some expert dairy breeders are inclining more and more to the belief that heifers should be allowed greater maturity before dropping the first calves, and are also permitting them to lay on more flesh than has been thought to be safe. These men are demonstrating the accuracy of their theories in the results produced. While it is clearly apparent that immature breeding has reduced the size of many of our dairy cattle, it has not been proven that diminished constitutional vigor has accompanied this loss of size, though many hold to that view. It is rational to assume that in unduly immature breeding some of the physiological laws of nature must be violated, and this cannot occur without being followed by some evil results. No fixed age can be given for the breeding of heifers. It should be dependent on the rapidity and character of the development of the individual."

I am keeping the Jerseys only. I believe in taking the middle course. I have usually managed to have my heifers drop their first calf when very nearly two years old. This practise has given good results. I like a fairly large cow. In the absence of newer developments in this line, I shall stick to my old practise.

◈

Effects of Bad Meat

It seems well established that "embalmed" or spoiled meats have caused innumerable cases of sickness and many deaths; and this has not happened alone to mankind, but likewise to fowls. I have had a number of inquiries about a mysterious disease attacking chickens, as well as ducks and turkeys. It may start in with looseness of the bowels, and then affect head and neck in a peculiar manner. The fowl seems to become sort of paralyzed, losing control of its head, and finally dies. Whole flocks go sometimes in this manner, and on investigation it is usually found that the birds have had access to decayed meat or other spoiled foods. The disease is called "limber neck," and is due to the poisonous effect of the bad meat. Last summer a neighbor of mine lost about one hundred and fifty half-grown chicks by ptomain poisoning. The good wife of the next door neighbor had emptied a can of spoiled salmon in the back yard. The flock of chickens got to it and devoured it greedily. Next day all birds who had partaken of the feast, were dead.

Some poultry keepers feed the offal from butcher shops to their fowls quite regularly. If this is fresh and clean moderate rations of it will do no harm. If it is half rotten, and perhaps full of maggots, regular feeds of it will surely get the fowls and their owner into trouble. For myself and family I would not use the eggs on my table which were laid by a hen fed on putrid meat or other rotten stuff any more than I would want the milk from a cow fed on decayed vegetables. I have no appetite for such products of the poultry yard or dairy, and I believe there is actual danger in their use for human food.

I am even a little suspicious about the average poultry meat-meals on the market, they are largely made of the offal of the large slaughter and packing houses, and probably of decayed meats to some extent. The high heat to which these materials are exposed in rendering them may kill the dangerous germs, but some germs are known to live even through such an ordeal. I have used meat-meals more or less for years, but shall be a little more cautious in their use hereafter, and surely not use them to excess.

T. Greiner.

◈

Salient Farm Notes

Raising Hogs in the South

A MISSISSIPPI farmer says he has land that will grow forty to fifty bushels of corn to the acre, and he has about decided to raise more hogs and grow less cotton. I think this is a wise decision. He asks about sowing clover in summer on a strawberry patch after the berries are gathered. I hardly think he will succeed in securing a stand by sowing at that time of the year. I would suggest that he sow cow-peas instead of clover. I think cow-peas will do well with him. They should make a large growth and yield a good crop of peas, which will make the best of feed for his hogs. He could turn the hogs into the cow-peas as soon as the first pods ripen and they would live and fatten on them. If he has no pasture for his pigs during the summer, he should grow a supply of sweet corn for green stuff. Probably he might plant half an acre on the strawberry patch after the berries are gathered, for later green feed to last until the peas are ready to turn onto. In the South it is very desirable to have plenty of good green food for pigs, and to not feed them heavily with corn during the summer season. He should aim to keep them growing and in fair condition until fall, or cooler weather comes on, when he can begin to increase the corn ration and fatten them up. If his peas turn out well he will not need very much corn, though they are fond of a little, even when they have an abundance of peas, and it helps very much in getting them into condition for the market.

The Southern farmer is awaking to the fact that he can grow his own meat and other provisions as well as to have Northern men grow them for him while he wrestles with the great staple, cotton. Cotton to the Southern farmer is about what wheat used to be to the Northern farmer—a ready money crop. But the latter long ago learned that pork and beans and butter, eggs, milk, and the different garden vegetables were about as essential to his welfare as a little ready money, and he set about producing them. The Southern farmer has been slower about this, but he is rapidly catching on, and each coming year will see more of these things produced on Southern farms. Hogs and poultry must be managed a little different down there to do well. Clean quarters for both is an absolute necessity where the climate is both warm and humid, and it will not do to crowd them in the least. They must have plenty of room, clean water to drink and clean food. There is disease for pigs in the slop barrel, and the pestiferous thing should not be tolerated. All slops and sloppy feeds must be fresh and wholesome when fed. A slop barrel is bad enough in the North, but vastly more dangerous in the South. We have several buckets for slop, and all are emptied every day. When milk and meal slops are fed, only enough for one feed should be mixed at one time.

I rather think that what is termed the bacon hog is better for the South than the lard hog. The bacon hog is fed only enough to keep him in good growing condition until about six weeks before he is wanted, when his rations are increased gradually until he is on full feed. When ready for the block he is in what we would call fine condition for laying on lard, nicely rounded, but not loaded with fat. He makes better bacon than a fat lard hog, but does not yield so much lard. If he has been finished on cow-peas and corn he makes bacon fit for a king. He is less likely to be caught by any disease and taken off without warning than one that is loaded down with fat.

In the matter of poultry production Southern farmers seem to have a good deal to complain of. A large part of their troubles are caused by unsanitary surroundings and lack of proper accommodations for their poultry. "Limberneck" in fowls is a disease common in the South, and the cause or "limberneck" is the eating of carrion and other putrid and poisonous foods. When a man writes to me for a cure for "limberneck" I tell him to clean up his place and keep it clean. The South is an ideal section for the production of bacon hogs and early poultry, and the farmers down there will discover that fact some day, in fact they are beginning to sit up and take a little notice already.

◈

Terracing Hillside Land With Arbor Vitae

A young man in Ohio writes that he has recently fallen heir to a farm. When he first heard of it he had a spell of rejoicing, but when he saw it he changed his tune. He says it consists of forty acres, twenty-one good bottom land, and nineteen of clay hill sparcely covered with brush, a sort of wire grass, weeds and young trees. It is in a good locality and he would like to live there, but he hardly knows how to manage that brushy, gullied, clay hill land. Then he outlines a plan that is good, and I would advise him to adopt it. He says:

"I notice that blue grass will grow on this soil if given half a chance, and I noticed that arbor vitaes will also grow on it. Now my idea is to terrace this hill by planting arbor vitaes in close rows, thirty or forty feet apart, running around the hill, clear off the brush and trash and seed heavily to redtop and blue grass. I could keep the arbor vitae hedges down to a height of about two feet and they will not interfere with the growth of the grass, while they will stop the gullying, which I learn is all done in the spring as frost is coming out or just after it has come out of the ground. It seems to me I can make this miserable hillside an ideal pasture for cows or pigs, keeping the latter properly rung, and make it earn me something while I am growing grain, chiefly corn, on the bottom land. I could let the lower row of arbor vitae grow about four feet high, wireing it at the bottom with woven fencing and a couple of barbed wires on the top and it would make a good fence, separating the pasture from the farm land. How many years will it take to make fence, and how long before the rows on the hillside will be firm enough to stop washing or gullying?"

He should buy eighteen-inch trees for the lower line, and twelve-inch trees for the terrace rows. The lower row will make a fence as soon as he gets the wire on, if he fastens it to strong posts. If he uses stakes the trees will hold it in about six years. He will need to set the trees in terrace rows about eighteen inches apart. They will have a firm hold in two years, and should be kept down to a height of about eighteen inches. This is a new wrinkle in terracing, it seems to me, but it looks feasible, and without a doubt this young man will make a splendid pasture of this now useless hillside. A man once wrote me he had decided to use Osage Orange in terracing a hillside, and three years later he wrote me that it was a success, but gave no particulars, other than the hedges were forty feet apart. It seems to me arbor vitae would be much better than Osage, requiring much less trimming.

Fred Grundy.

Non-Conducting Cement Floor

CLEAN out the old floor then level up the ground to six inches of where the floor is to be. If there are some holes, stones may be used. On top of this put a coating of cement three inches thick. Use the Portland, and take one part to four of good, sharp sand, free from earth. Be very particular to mix the cement and sand thoroughly before wetting. With this cover the entire floor, including where the cattle eat, and up to the side of the building behind them, for you will need no mangers. Where stanchions are to be set, get four bolts made from one-inch iron, fourteen inches long.

On these make heads fully three inches square. Set one in the cement at each end of the line, and two equidistant through the center. After the floor is all in the timber that supports the stanchions may be bedded and held by these bolts. The length from stanchion to edge of gutter for ordinary cows is four feet six inches. Unless your cows are very uniform in size, I should make the space at one end fonr feet two inches; on the other four feet eight inches.

This will allow a proper amount of room for heifers and short cows, so they will stand over the gutter on the narrow end, and long enough in the wide one, so that very long cows will not stand with their feet in the gutter. There should be eight inches from the bottom of the gutter to the platform or place where the cows stand; the gutter should be sixteen inches wide and six inches high on the back side. Built this way it is much easier to clean. By making this trench in proper proportions with the floor, it can all be constructed of cement.

After the first coat of cement is on where the cows are to stand, cover the surface with tar paint just as soon as it begins to set; on this place a covering of good heavy tar paper, cover with tar, and on this place the next coat of cement four inches thick. This paper will act as a non-conductor and your floor will always be dry and never cold. The upper coat of cement should be one of cement to three of sand under the cows, and wherever there is to be any heavy tramping in front of the cows one to four is all right. Next to the gutter edge make it one to two. A slope of one inch from stanchion to gutter is all that is necessary; more is not comfortable for the cows. Be very careful not to smooth the surface where the cows are to stand. An unplaned board is about the proper tool for this purpose. On this the cows will not slip, and it will hold the bedding. The place from which the cows eat may be slightly dishing. I am sure you will make no mistake in following this plan. It will probably be better to get one man who understands handling cement to boss the job. Ordinary unskilled labor will do the rest.—E. Van Alstyne in the Tribune Farmer.

Ventilating a Dairy Barn

The principal underlying ventilation is the control of air currents. This circulation both in and out of the building must be through specially constructed flues. It is idle to put the "King" system of ventilation into a foul-smelling, loosely built barn with a plank floor; it already has too much air circulating in and out. Therefor, the proper construction of the building is the first consideration. The cow stable is the business office and manufacturing plant of the dairyman; it should be as comfortable in every way as his living room in the house. It should be a home for the cows and not a cheerless barn. To accomplish this, the room must be completely insulated from the outside temperature. There is no reason why we may not now advise the best of all side wall construction.

BUILDING THE VENTILATING FLUE

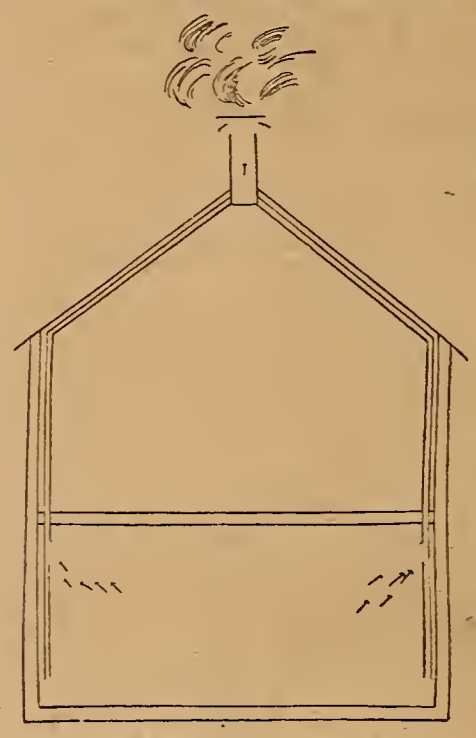
Having a stable built as just outlined, we are now ready to put in dampers and pipes. Many a farmer has experienced serious trouble from dripping of a stovepipe passing through a cold room; or horizontally for some distance; or into a large chimney where the warm air would cool off before reaching the top. The same trouble will follow this ventilation unless the flue is run straight or is insulated against outside cool air. It is therefore safe to build the flue only of matched lumber, with paper between the two boards, thus making it vapor tight. If such a flue is built free from the building and is carried to the highest point of the barn, and projects

Review of the Farm Press

five or six feet above the ridge, it will always work. The flue is covered with a cap about one foot above the top to keep out rain, and to increase the circulation by the passing of strong air currents over the top. Do not build these flues of material which conducts heat readily, as galvanized iron; neither should they be taken out under the eaves or between rafters. They can be built outside the barn if necessary, in which case insulation must be perfect to prevent condensation; probably a double flue, with the air space stuffed with straw, would be sufficient.

THE SIZE OF THE FLUE

The size of the flues should be regulated by the number of animals and not by the size of the room. A flue one foot square is considered sufficient for five or six cows. For ten cows the flue should be one foot by two feet; for twenty cows it should be two feet by two feet. It is the opinion of the writer, from observation rather than from experience, that one flue located at any convenient place will be as



COOK'S VENTILATION PLAN

satisfactory as two or more flues for a room holding thirty cows or less For larger rooms, two flues or more would be better. My own experience has been with four flues for sixty animals. These flues should open near the floor and also near the ceiling. In each place the opening should equal the full size of the flue. When the temperature outside is low, use only the lower opening; when high, use the upper. In a room constructed along these lines we are able to maintain a constant temperature of from 54° to 60° without regard to the outside weather conditions. This stable is located in the coldest section of New York State.

THE INTAKE

Provision must be made for a constant inflow of cold air. No specific rule can be given for the number of these small flues. The points which mnst be kept in mind are to have the inflow from all four sides of the room; and through openings not over four inches in diameter, so small that the cold air will become mixed with the warm air before reaching the animals, and also to keep up a constant circulation in the room. The animals nearest to large openings might be chilled. To illustrate: If the flues were placed as shown in Fig. 242, the air would not be changed over the larger part of the room; but if located as shown in Fig. 241, the change of air would be constant and complete. The manner of constructing the flues is shown in Fig. 239 and Fig. 240. These flues always work, because cold air entering the stable through them is soon warmed by contact with inside warm air and the animals, and hence rises rapidly. Air will never pass out through these intake flues. This inflow of cold air under pressure materially assists in forcing impure air out through the out-take flues; in fact, each flue assists the other. I am unable to give a definite rule as to the number of these flues, for it depends so much upon wind pressure and how much air enters around the doors and windows.

All doors opening out should be double; where they open into other rooms single doors may answer, and may be the means of admitting air to some extent. It is easy to judge whether the volume of air coming into a room is sufficient by observing the course of the air when entering the room. If the circulation is balanced there will be no suction in and out. If the warm air meets you in the face the out-take flues are not doing their duty; if the air rushes in when you enter, provide more cold air flues. A stable cannot be sanitary unless it has been provided with a good system of ventilation. The one outlined here has been very satisfactory. The health of the cows and the purity of the product demand that the matter of ventilation be given careful attention.—H. E. Cook in the American Cultivator.

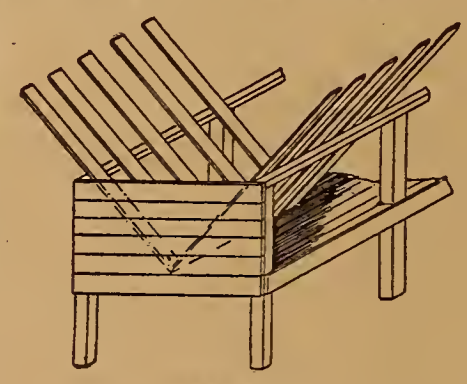
A Handy Fodder Rack

The illustration of a fodder rack on this page is one invented by the editor of the "Agriculturist" and used by him for many years. The rack is such a good one that hundreds of farmers copied the idea and they came into quite general use on cattle farms. There is absolutely no waste of feed in using this rack, and anything can be fed in it from corn fodder to ensilage and meal.

The rack has a tight bottom into which all litter falls as cattle pull out the hay or other fodder from between the slats. It is twelve feet long and five feet wide. Three or four such racks in a yard will hold a load of hay or corn fodder. It is the best rack in which to feed corn fodder we ever saw. Cattle will pull out every leaf and husk, leaving the bare stalks in the bottom, which may be removed as desired.

The posts are 4x4; six feet long. On top of the posts a 2x4 is spiked, upon which the slats that hold the fodder rest. These slats are four inches wide and placed far enough apart to admit the nose of a cow—about six inches The bottom is made of common six-inch boards. If meal is fed in the rack matched flooring is better for the bottom. A six-inch board is nailed on around the outside of the bottom to hold the feed.

Where young cattle, cows or steers run loose there is no better way of feeding them. We have fed a good many steers in this rack. They were dehorned and ran loose in a shed. The



FEED RACK

rack was kept full of clover hay and ensilage, and meal was fed twice daily in the tight bottom.

Where such racks stand out in the open a roof can be put on at small cost, and if straw is plenty, the brood sows and shoats will sleep under the racks during mild weather.

This style of rack is very serviceable for horses and colts running out during winter, as all kinds of forage and grain can be fed in it. It is also a very good sheep rack when built smaller, of course. The only objection to it for sheep is that chaff will fall down into the wool on the animal's head and neck. This is not a serious objection, however. The rack is very durable, as it is well braced by the floor and top pieces, and there is no chance for cattle to break it rubbing against it.—The Wisconsin Agriculturist.

Harrowing Wheat

The principal of loosening the surface of the soil and keeping a mulch of mellow soil in order to break the capillary movement of water and prevent its evaporation is well recognized by farmers generally, and is practised to a greater or less extent in the cultivation of all kinds of crops. In the growing of wheat the preparation of a favorable seed-bed should leave the soil mellow at the surface. Usually, the rains in the fall after seeding are not heavy enough to pack the soil. Often the wheat makes considerable growth and covers the ground during the winter. There are usually no heavy showers early in the spring, and the wheat starts quickly and by stooling soon covers the ground and protects the soil from the beating of heavy rains. Thus, wheat needs perhaps less cultivation after planting to retain the soil mulch than is required by corn and other cultivated crops.

However, if the soil becomes packed by heavy rain, the soil mulch may be restored by harrowing the wheat. The weed-harrow or weeder is probably better adapted for harrowing wheat and other grain than the common tooth harrow or slanting tooth harrow. The weeder is, however, somewhat objectionable on account of the wheels. When the ground is reasonably firm the common harrow may be used without injuring the grain.

Our plan has been to harrow once or twice in the spring after the wheat has started well. It is not usually advisable to harrow wheat in the fall, and it is best not to harrow too early in the spring, but when the grain has made some start and the roots of the plants are well established wheat may be harrowed without injury and often with much benefit. The harrowing will not only loosen the soil, producing the mulch which conserves the soil moisture and preparing a favorite surface to receive the rain, but the harrowing also destroyes the young weeds and gives a cleaner crop of wheat than may be secured without harrowing.

I question whether it is necessary to continue the harrowing after the wheat covers the ground well, unless very heavy rains firm and puddle the soil, destroying the mulch of mellow earth. Usually this will not occur. I have harrowed when it stood five or six inches high and had stooled so as to about cover the ground, and the soil mulch thus produced was still in evidence at harvest-time. Experiments in the harrowing of wheat and other methods of wheat culture are being undertaken at the Fort Hays Branch Station and also at the experiment station at Manhattan. These experiments have not yet been continued long enough to give definite results. —S. M. Ten Eyck in the Kansas Farmer.

Don't Feed too Much Hay

In the "Practical Farmer," Mr. T. B. Terry gives the following sound advice about feeding hay:

A Michigan friend says: "You tell us that good, early cut, well-cured clover hay is worth nearly as much as wheat bran to feed, ton for ton. No doubt it is, if stock would eat it up clean. But my cattle will only eat the blossoms and leaves. And still the stems are not coarse. And I cut my clover from the 10th to the 20th of June and cure it nicely. But my horses will tumble and toss it over to get the leaves and blossoms. I hope you can tell me soon how to make them eat it."

With such nice hay as you have there is no question but what your animals have too much hay put before them. Of course, then they will pick out the leaves and blossoms and leave the stems. Overfeeding is a very common error. Decrease the amount of hay fed until they will just about eat it up clean and readily. I have fed many tons of clover hay in this way. It is not easy to make highly fed cows eat it clean. But the little they left I used to gather up and feed to the horses, with grain. I was in the barn all winter long to make the most of our feed. Very few forkfuls of good hay ever went to waste, practically none. The great secret is not to overfeed. I did not give a horse any more than he would eat up clean and with a relish within a reasonable time. It is bad for any horse to be fed so much that he has hay to pick at all the time, when standing idle in the stable. It will injure his digestion as well as waste feed. I want to see horses, and all stock, hungry when I go in to feed them. They should show it unmistakably. Now, someone may think that naturally, in pasture, horses have feed before them all the time. Somewhat so, but not so they can nose it all over at once, and then grass is largely water and easily digested. Dry hay is different. Man's judgment is needed with it.

Alfalfa

[CONTINUED FROM PAGE 1]

plowings and plantings. One of our experiment stations reports that "one acre of alfalfa yields as much protein as three acres of clover, as much as nine acres of timothy, and twelve times as much as an acre of broom grass." In spite of the fact that clover is so reliably and profitably grown in the Eastern States, alfalfa, regarded by many as only adapted to a semi-arid region, has by sheer merit forced its way in all directions until now many fields are found in clover-growing districts.

There is no ground for skepticism as to the adaptability of alfalfa, or its feeding value. Investigation should remove whatever doubts there may be in the minds of some as to the latter, and experiments on their own farms serve to set at rest the former. If you have been persuaded without actually trying it that alfalfa will not grow in your neighborhood or your state, don't believe it; you can't afford to accept any such dictum. Try it faithfully for yourself and reach your own conclusions instead of taking those of someone else, second hand. If you have but a small patch of ground and one cow, you need to raise alfalfa. If you have more land and more live stock your need for it is still greater. It has no peer and no rival.

There are really few soils or localities in any agricultural region, east or west, where this legume will not prosper if decently treated. If given a proper seed-bed and sowed under favorable conditions it can probably be grown in every locality. If the first sowing is a disappointment the soil probably lacks the essential bacteria. If so the inoculation of the land with these by sowing infected soil from an old alfalfa field will overcome the difficulty. At any rate, farmers everywhere who have not tried alfalfa should by all means demonstrate whether the plant will thrive with them. This need not be done extensively at first, in fact, should not be done, as even now, where it is grown so prosperously and described as being "admirably adapted" to conditions, many first trials were failures. It requires experience, generally, to secure the best results, and this can be had by preparing and sowing small areas. After once permanently "set," it can be relied upon to produce abundantly each year. If the first trial is unsuccessful try at least another time on the same ground. The methods followed in securing a catch of clover may fail with alfalfa, although in the light of present knowledge of requirements a stand should be easily had where clover has been the main reliance. Thorough preparation of the soil is a primary requisite, and in the more humid sections this would imply the application of barn-yard manure before plowing the land—a practise that would likely not fail of good results wherever pursued.

While the mature alfalfa is a gross feeder, and hardy, the young plant is delicate, and requires the best of seed-beds, which should be mellow, yet firm and compact, with the surface as finely prepared as for a garden. Sow when the weather is right, say, late in August or early September, and without a nurse crop, 15 to 20 pounds of seed to the acre. Seed should be tested for purity and germinability. Good seed is absolutely essential. Poor seed, weeds, and the lack of thorough preparation probably have been the causes of more failures than all else. Seed may be sown either by broadcasting or drilling. When using the drill, a common method is to mix an equal quantity of wheat bran, corn-meal or alfalfa meal with the seed, as aids to an even distribution and a not too excessive seeding. Both spring and fall sowings are practised, the former being the more general in the northern latitudes. Usually when sown in the fall it is after an oat, millet or potato crop. In some districts fall sowing is advisable in order to get ahead of crab-grass and other troublesome grasses and weeds.

Alfalfa should be cut as often as it blooms and as soon as the blossoms begin to appear; it is never so valuable later. The importance of the leaves prompts early cutting, and the fact that they contain 75 to 80 per cent of the protein of the whole plant accentuates their value. Early cutting of the first crop especially is regarded as essential, as a short delay may mean but two crops instead of three or four. For seed, cutting should be done when the greater proportion of the seeds are hard and of a dark brown color, but not sufficiently hard to shell.

The proper handling of the hay calls for skill and painstaking. Briefly, it should be cured, if possible, partly in the swath, the windrow, the cock, and in the mow. A wetting is injurious, as is too long exposure to the sun. The highest returns are not realized if harvesting is not done intelligently. There are many factors entering into such work that experience alone can best teach, but a knowledge of the successful methods of others must be helpful, therefore, learn of them.

Experts have declared that alfalfa would only grow in certain soil and in certain climates, but it has proven adaptability to nearly all climates and almost all soils. There are but two soil conditions that seem reliable against the growth of alfalfa. The one is a soil constantly wet; the other is where there is too much acidity. The latter may be remedied by an application of lime, the other will require drainage. Each of these could with profit be prepared for producing this wonderful forage crop, if other lands more suitable were not available on the same farm. As is well-known, alfalfa on the whole, does not fall far short of a fairly balanced ration, and hence for dairy animals it is incomparable, and wherever alfalfa flourishes dairying, if not already one of the important industries, is likely to become so.

Neither cattle nor sheep should be pastured on alfalfa, as it is liable to cause bloat, although there are not a few who have pastured cows on it with profit. For horses and hogs it is excellent. Aside from it being a valuable pasture or soiling crop for pigs they will eat alfalfa hay. Experiments have shown that pigs make better growth when their dams are fed considerable alfalfa than do those from sows fed the best of rations, but with no alfalfa. For brood sows it is a most valuable food either as a hay, a soiling crop, or a pasture. The litters of such sows as have it are generally large and vigorous, and the dams have a strong flow of nutritious milk.

Thousands of acres in the West are now returning incomes of $15 to $25 per acre from alfalfa, where but a few years earlier the land was supposed to be almost worthless for agriculture, and hundreds of farms in the Eastern states that were returning but little above cost of labor and fertilization are yielding enhanced returns since the introduction of alfalfa.

Few are justified in postponing the addition of this crop to their husbandry. Its benefits are manifold. It not only subsoils the hardpan, renovates and fertilizes the soil, but yields annually for years an abundance of the most valuable feed. It is a plant eminently worthy of the high estimation in which it is held by those best acquainted with its value, and each passing year finds an increased number enjoying its benefactions.

ILLUSTRATION OF THE ROOT SYSTEM OF ALFALFA

Notice the long tap-roots and the lateral roots bearing the tubercles. These plants were grown in tall pots and the soil carefully removed from the roots by washing

Woven-Wire Fence the Best

In my experience with several different kinds of fencing I regard the woven-wire fence as being the best. I use a smooth woven wire, without any barbs at top or bottom. The posts are walnut and white cedar. I paid 35 cents a rod for the fencing, delivered at my railroad station, and 11 cents each for what posts I failed to procure from my own farm. However, I obtained the majority of the posts from my premises which I had planted several years ago for that purpose.

In building the fence I set the corner posts four and one half feet and the line posts three feet in the ground, to insure solidness of the posts, which is of the greatest importance with a fence of this kind. The posts were set twelve and one half feet apart. The end and corner posts were well anchored with two boards in front and back and a cable wire from the top of the posts fastened to a large rock which is lowered about three feet into the ground. This fence is giving me better satisfaction than any I have heretofore used, and will stand without repairs for a good many years.

In building a fence of this kind there are three essentials that should be borne in mind—tight stretching, solidness of posts and anchors, and lasting qualities. I do not believe there can be a better fence produced than the woven-wire fence. Still, a great many farmers are running risks in maintaining barbed-wire fencing. On the farms of the United States, taken as a whole, I am fully convinced that the loss sustained by barbed-wire fencing, in live stock killed and injured, would practically rebuild every rod of it with a sensible woven-wire fence. The place for every foot of barbed-wire fencing is in the junk pile of some wire factory, where it can be worked up into something useful.

Illinois. WM. H. UNDERWOOD.

A Few Don'ts

Don't leave any farm machinery out to be rusted, rotted and spoiled by the weather. I have seen binders left where the last piece of grain was cut until grain had ripened again, plows frozen in the ground, hay-rakes with tongues stuck over a fence, and cultivators keeping them company. In fact, on one farm here and another there I have seen all kinds of farm machinery left to the wear and tear of the weather. Many thousand dollars' worth of machinery has been spoiled in this manner, and the factories and middlemen reap the benefit in new machinery sold.

If possible I drive my farm machines to the place where they are kept when not in use, which is the basement of my granary, 26 x 32, height 6½ feet. This contains, as I write, a binder for small grain, a gang plow, a sulky plow, a walking plow, a sixteen-foot harrow, a riding cultivator with eagle claws, a riding cultivator for surface cultivation, a corn-planter, a seeder for oats, sorghum, timothy or clover, a hay-rake, a half interest in a hay loader, a disk harrow, a roller, a stalk cutter, a mower, and a fanning mill.

My farming tools cost me $500, and I use them on a farm of 243 acres, of which 25 acres is heavily wooded. If these machines were left to the erosion of the weather, my farm would soon be under a blanket that does not warm—a mortgage.

As you put away your machinery, note the repairs needed, and don't wait till next year—get them now.

Don't winter any old cows, old sheep, old chickens, nor horses, twenty-one years of age or older. You can pour feed into them, but it is all wasted.

Don't fail to drive staples where needed in your fence, if it is wire; nail all loose boards if a board fence.

Don't fail to nail on any board which has worked loose on shed or barn. Make all your stock barns warm and dry. A warm barn saves tons of feed.

Don't fail to put a shingle where a small hole has opened in the roof of any building.

Don't fail to clean your garden of weeds and brush, and then cover it all over with manure.

Don't fail to cut and burn all dead limbs on your fruit trees.

Don't fail on any of the above tasks, and when the winter winds howl about your doors you can take comfort in knowing that everything is snug and warm.

Illinois. U. S. ELLSWORTH.

Ten million bushels of macaroni wheat have already been sold from the three states of North and South Dakota and Minnesota. This variety is also known as Durum wheat, the culture of which is rapidly increasing in the Northwest. *

Gardening

Northern Seeds and Plants for South

AN ALABAMA reader asks whether it is reasonable to expect as good results from using Northern-grown seeds and trees as from seeds and trees raised nearer home.

I will not answer this question too positively. My impression is, however, that it will be perfectly safe for the Alabama reader to plant seeds or trees grown in Connecticut, or Maine, or Illinois, or Ohio, or New York, etc. A large part of the seeds we plant here are grown in California, others in England, France, Germany, Denmark, Holland, etc. We are just as successful with them as with seeds grown right in our own garden. In many cases, I would prefer the latter, however, and I would not care to plant trees here that were grown in Maryland, Virginia, or any other state South, so long as I can get good trees grown in Northern nurseries. As for strawberry plants, I would rather have them from my own patch, or from a neighbor's, dug fresh and planted soon after, than have them shipped in from afar, unless I were sure that the plants had been freshly dug, packed up for shipment at once and in good shape, and carried through without much delay. If I am sure of these things, I would rather buy the plants from a professional plant grower who takes up the whole patch for plants, and can raise them free from fungous diseases, than to dig them in my own patch where I expect to raise a crop of fruit next season.

Late Cauliflowers

On November 23d, notwithstanding the various severe frosts of the past month, I cut a number of cauliflowers of snowy whiteness and great compactness in my garden. Most of the heads were of medium or below medium size, but very nice and acceptable. Seed had been sown "in the hill" after the early lettuce crop was taken off. Apparently the plants thus started, directly in the field, head just as well as those grown in seed-bed and transplanted. And good cauliflowers are almost always readily salable.

Late Beets

I have just harvested my crop of mangels which are intended for cattle feed during the winter, and are expected to help to keep the cows in health and to increase the flow of milk. But with these cattle beets we also had a lot of small red beets, seed of Alpha, Detroit Red and Crosby's Egyptian having been sown along in August in some spots and sections of rows then found vacant. The new seeding had come on promptly, and we now have a good supply of excellent tender beets two to three inches in diameter. These are stored in the cellar, where they will keep fresh and juicy, to be used as wanted. We also have put up a quantity of them in cans as pickles. The beets were boiled, but left whole, to be sliced when the time comes to use them. We have always greatly relished these young and tender beets during the winter season, even more than we relish them in the summer, at a time when we have so many other good things from the garden. We also had a lot of winter radishes from the same beet patch, one row having been filled out by sowing winter radish seed in the vacant spots. This is one of my ways of making the best use of all my available space.

Weevils in Lima Beans

A Port Byron, Illinois, reader writes me that he has had trouble with his last year's crop of lima beans, they being badly affected with weevils. He has not yet noticed any in this year's crop, but to make sure, he has heated them in the oven until all insect life in them (should there be any) must be destroyed.

This treatment, of course, has unquestionably also destroyed the life of the germ, and the question is "Are these beans fit to eat?" I am not fond of eating insects, even in the early larvæ stages, and when we are to have green peas for the table, in early summer, I always have them looked over with great care, so as to have every one that shows weevil infestation thrown out. Yet undoubtedly there are now and then peas left in which contain the eggs of the weevil, and if we can't stand for it, why there would be only one way out, namely to abstain from eating green peas. And thus it may be with the beans which are liable to be infested with the pea-weevil's smaller brother. If we gather the dry beans during the summer or fall, and promptly treat them, either by exposure to heat (which of course might spoil them for seed) or by exposure to the fumes of bisulphid of carbon, I think all the weevil eggs that might be inside of a few of the beans, will not hurt us, and in fact, we must not be too nice to be wise. I would eat the beans if I could not discover any external signs of weevil attacks. But if we store the dry beans in tight bags, without first treating them for weevil, every one of the "critters" will develop into a full-sized weevil, and even go to breeding inside the bag, and when we open the latter again there may be nothing left in the bag but a lot of live weevils and a lot of bean husks or shells, with a little dust.

Mushroom Comments

On my recent report of the failure to produce mushrooms in New Jersey, where a big firm backed by abundant capital and skilled help had undertaken to grow mushrooms in three large houses constructed purposely for this business, Mr. A. I. Root in "Gleanings" makes the following comments:

"I confess the above is rather discouraging, and it seems to me some of our experts ought to learn how to make a success with mushrooms every time; but my experience has been just about like the above. When I took the most pains to have everything just right, there was scarcely a mushroom; but after I had given it up, and put on another crop, they came stringing along for a year or two, sometimes so as to pay very well. If any of our friends can tell us of a successful mushroom cellar or cave, and one that continues to succeed year after year, we should be glad to know about it."

With all the failures, however, that we and others have been making, mushrooms are so good, and palatable, and attractive that the efforts will be continued to produce them under artificial conditions. But we should cease to tempt people who are in need of every cent they can get together with those flattering prospects of "easy money made in mushroom growing."

Fertilizers for Sweet Potatoes

One of our readers asks about the use of commercial fertilizers for sweet potatoes, especially whether it would pay to make a second application when the vines begin to run.

What we want for this crop is a warm sandy loam, and this need not be excessively rich. For this crop I believe in hill manuring. One of the best ways is to put a forkful of old manure into the intersections of furrows made both ways, then hilling up over the manure and setting the plants so that the roots will have the benefit of the manure. In the absence of manure, a complete commercial fertilizer (especially rich in potash) will answer very well. I would use it at about the rate of half a ton, more or less, per acre, and mix the corresponding quantity right into the hills or rows. This is much better than to apply it broadcast. We do not care to encourage the tendency of the vines to strike root all over the surface of rich ground. Make one application, before planting, and then let well enough alone. We used to recommend the practise of lifting the vines occasionally off the ground with a long fork handle, but this seems to me entirely unnecessary, and simply labor lost.

Mixed Seed Potatoes

A Nebraska reader says he got the Eureka potato a few years ago, along with Admiral Dewey, Early Six Weeks, Early Michigan, and three or four others; but they got all mixed up in the bins.

We all like variety, and are hardly ever satisfied with one kind of potatoes or anything else, no matter how good and satisfactory that one kind may be. But it is by no means satisfactory to have a mixed lot. Growers who grow a number of varieties of potatoes will often find them badly mixed in the bins, unless they take particular pains in keeping their seed potatoes separated. I usually dig and sort my seed potatoes, and store them in separate bins, or if in smaller lots, in crates, writing the name of the variety on each crate. Even then I find occasionally odd specimens among the lots and have to keep culling and sorting out. We cannot be too careful in this matter.

T. Greiner

Fruit Growing

Notes on Gooseberries

T. A. B., Ingersol, Canada—Gooseberries need heavy soil, but will grow fairly well upon any soil of fairly good quality. They may be planted in autumn or spring, and should be set about five feet apart each way when grown on a large scale. For a small garden four feet apart would perhaps be a better distance. It is best to give them full sunlight, although they do not do best upon a southern slope, a northern slope being much preferable. The ground about them should be kept thoroughly cultivated, the same as for almost any of the other small fruits, but under some conditions they will do well if kept heavily mulched with grass or similar material, or even with hardwood sawdust. After the bushes are well formed they should be pruned each year, or a portion of the wood cut back, as otherwise they will set so much fruit that it will all be small.

The hardiest of all the varieties adapted for this country is probably the Houghton. The Downing and Champion, however, are larger and better in quality for general use.

The Rathburn and Eldorado blackberries should be grown in rows and be supported by a wire on each side. I think the best way for making a trellis for supporting blackberries is to have a stout post at each end of the row and have two wires running between the posts for the blackberries to grow upon. At a distance of fifteen to twenty feet the wires should be tied together with string, and where the rows are very long, perhaps an occasional slender stake may be put in to keep the wires from dropping too low.

Pear Trees Not Bearing

F. S. T., Oldfield, West Virginia—I am inclined to think that the land on which your pear trees are growing is very rich, and on this account the trees are making such rapid growth they do not form any fruit buds. However, you can depend on it that they will come into bearing within a few years, and I should be inclined to let them alone; or if you feel doubtful about their coming into bearing within a reasonable time, I think I should prune the strongest branches in June. This would have a tendency to check the growth and probably produce bearing wood.

I do not know what the little dark spots on the leaves are, to which you refer, but if they do not seriously injure the foliage I doubt if it is anything liable to be especially troublesome. The Kieffer pear is a vigorous grower, and the foliage is generally healthy. In your case it is certain the trees are quite healthy or they would not be making such a strong growth. It is more than probable that anything that would injure the foliage in the summer would have a tendency to check their growth and bring them into bearing. If your orchard is now in sod I certainly would not recommend you to break it up and grow cow-peas on it, as they would have a tendency to enrich it and perhaps to encourage even a stronger growth than you now have.

The best fertilizer for fruit trees as a rule is stable manure, but where this cannot be conveniently had a good fertilizer may be made up by using 300 pounds of ground bone and 100 pounds of high-grade muriate of potash. If this material cannot be obtained let me know what is available in this line and perhaps I can help you out. I think the Kieffer pear is the most profitable variety for planting in your section, but if you wish to try some other kind, why not plant the Duchess?

Mulching Trees Where They Cannot be Cultivated

F. T., Spillville, Iowa—I do not think the soap, tobacco and ashes you put around your trees is the cause of the injury to the bark near the surface of the ground. I have thought since writing you that possibly the injury to your trees was done last winter by mice. If you will forward me a specimen of the injury I think I shall be able to tell what is the matter.

I would never recommend that young apple trees be kept in grass, with or without mulch around them, except in the case of steep hillsides where the soil is especially adapted to fruit, in which places they may be planted out, and will often do well if the cultivation is confined to mulching. As a general rule I believe that clean cultivation, with an occasional cover crop, is best for our orchards. In the case of an orchard situated as yours is, I think I should be inclined to protect the trunks of the trees with galvanized iron netting about half-inch mesh, which would keep away the mice, and then keep the trees thoroughly well mulched. If this is carefully attended to there is no question but what the trees will do well.

I have grown some trees by mulching, and I know of a number of other orchards grown in the same way, and I am inclined to think that the danger of winterkilling from this source is greatly overrated. The soil under the mulch is generally in excellent condition for the growth of the roots of our common trees.

Neither the Jonathan or Grimes Golden are safe in northern Iowa, except in very good locations, although there are orchards in which they are doing quite well when top worked on hardy sorts, but I do not recommend them.

Peach Trees Injured

J. W. C., Beaver Dam, Ohio—I am inclined to think that your peach trees grew very fast last summer, and in consequence the bark split. You state that they seem to be healing up, and I have no doubt but what, if they appear to be healthy, they will overcome any injury of this sort. If the wounds are not healed over by winter, and you think something ought to be done to them, undoubtedly the best treatment would be to cover the wounds with a little grafting-wax. If the wounds are near the surface of the ground, or in any case it would be proper to put a small bank of soil against them about one foot high.

Leaf Blight

S. M. F., Ranesburg, Pennsylvania—There are several diseases that might cause the leaves on your apple trees to curl up and fall. I am inclined to think, however, that your trees are troubled with leaf rust, but would like to have you send on a few specimens; it does not matter even if they are quite dry. It is probable that this disease is the result of a fungous growth working in the tissues of the leaves, and it is also probable that the best treatment for the orchards of your vicinity, and the only known treatment that will prevent the destruction of the orchards by this pest, is to use Bordeaux mixture as a spray. I will refer more particularly to remedies after I have seen the specimens which you are to send on.

Pecans in Missouri

W. F. S., Rushville, Mo.—While northwest Missouri is not in a good section for raising pecans, the chances are that in favorable locations there they will be something of a success, but not sufficiently so as to warrant attempting them in a commercial way. If you wish to try them I would suggest that you obtain seedlings from trees grown as far north as may be. A good way to start is to obtain the fresh nuts from the grower, and plant in the autumn. If, however, you wish immediate results then you should get trees of good size from some nurseryman.

Fig Bushes Not Bearing

J. P. I., Hickory, Virginia—The common Black fig will generally bear freely in the Southern States if given full sunlight. Since you do not state the names of the varieties of figs you are growing, I cannot answer you intelligently. Most of the finest varieties of figs are not fertile under ordinary conditions existing in our Southern States, and it is probably from this cause that they drop immaturely. In this connection it is interesting to note that the Smyrna fig industry of California was at one time in a very discouraging condition, owing to the fact that while the trees grew abundantly they did not set fruit, but it fell off when young. It is found that in the case of the Adriatic, which is one of the best merchantable figs of California, that it is necessary to have the flowers pollenized with the Capri or wild fig. In this case the pollen is naturally transferred from the Capri fig to the Adriatic fig on the bodies of a small wasp-like insect, and it was not until this insect and the Capri fig were introduced into California that fig growing there in a commercial way was successful. In the early experiments in this line it was shown that when the pollen was inserted into the fig with a toothpick, or blown in, that good fruit formed that staid on the tree until ripe.

Samuel B Green

THE SATURDAY EVENING POST

No one is more interested in the fortunes of our country than the farmer. His land feeds and clothes the nation.

Can a republican form of government endure? Can it stand the convulsive forces of trusts and unions, of graft and strikes, of demagogues and concentrated wealth? The American people are slowly answering the question and the words are being spelled in Washington.

We have a Washington department in The Saturday Evening Post called *The Senator's Secretary*. In *The Senator's Secretary* we shall provide some lively chapters this winter in which will be portrayed the real politician whom death hasn't yet turned into a statesman. The Series deals with Washington political life; it is intimate without being impudent, it condemns without rancor, and praises without slopping over. It is, to use a homely metaphor, a combination of below-stairs gossip and cloak-room secrets of the Great American Political Family.

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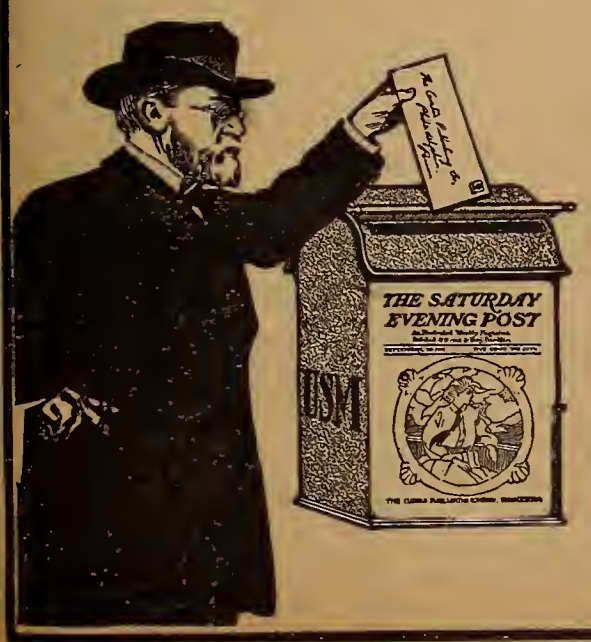

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We sell direct to the user. We'll save you all the middleman's profits.

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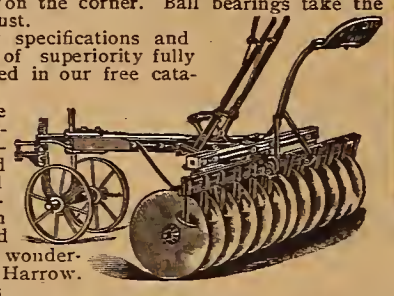

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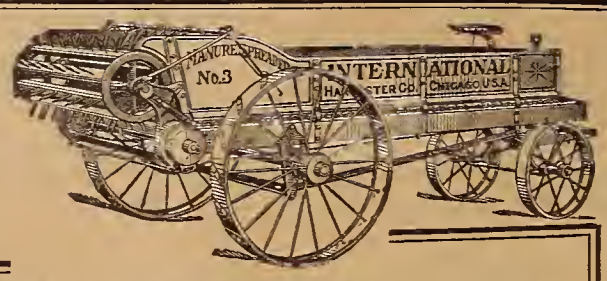

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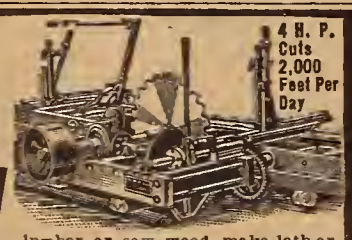

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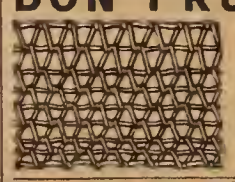

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Live Stock and Dairy

The Secret of the Full Barrel

"You ought to see my heifers! Tell you, they are just fine!"

The emphasis here was on the word "fine," as this young farmer spoke it. There was a world of meaning in it. And how his eyes did shine as he spoke of his stock! There was a great big smile on his face, too, that told a story more eloquent than was to be read in what he said.

That man had not been on the farm more than two years. When he went there he knew very little about farming, having been engaged in an altogether different line of business; but a farmer who had been sick for a year or two, in looking about for someone to help him until he got strong enough to do the farm work again, thought he saw in this man an integrity and a fairness that would make him a desirable tenant. And he made no mistake. The young man was earnest, willing to learn, and as steady as a clock; and he had a boy that was just as faithful as he was himself.

The point is right here: You cannot get something out of a barrel unless you put something in. The day of miracles is past, save as we work them ourselves. The man that would have nice heifers must take care of the calves and watch them up through to cowhood. That is what this man has done. He has fed the calves the best food he could get; he had sheltered them from the flies in summer as far as possible; he had watered them and curried them and fussed with them. And now they had reached such a favorable condition that he was proud of them—and he had a right to be. Any man is perfectly right in feeling a just degree of satisfaction when he has done any good farm work.

The trouble with a great many farmers is that they do not put anything of themselves into their work.

"How much did you put into this farm?" one man asks of another.

"It cost me five thousand dollars."

But the best question to ask, and the one that in the end will determine the degree of success that a man meets in his business is this:

"How much of yourself are you putting into your farm?"

It is one thing to go out in the morning and work steadily and ploddingly through the day at the regular farm work, the mind somewhere else, the hands only being engaged in whatever task is under way, and it is quite another thing to have every thought winged with enthusiasm for one's work, every plan wrought in the hot forge of a love for one's lifework, and every stroke measured by the tick of the heart, instead of the ringing of the clock bell in the old kitchen.

It is often asked why this man succeeds where that one fails. Nine times out of ten the empty barrel is found in the house of the man that puts nothing in except a half-hearted service, counting the days and the hours and the minutes as only so many vibrations of the pendulum of the clock of time, instead of so many days spent in loving, glad effort to build up a life which shall make someone better and leave the world a little farther along toward its millenium when we lay down the tools of our trade.

You find the shine in the eye, the round ring of the voice, the proud tone of conquest only in the man who has before him a purpose, and is steadily working toward that purpose. The young man was proud of his heifers because they represented the honest effort he had put into them. What makes a farm the best place on earth to some men? Only the fact that they have put so much of their own selves into it. Personality worked out day by day in the various farm projects is what makes the farm dear to him.

Nothing of this will you find in the man who is working life out by the day, caring little except to get through and draw the pay he thinks he has earned.

A good crop represents more than a few days of plowing, harrowing and harvesting. A fine herd of cattle stands for something more than a little effort in feeding the calves and bringing them in at night when the frost is on the ground. So with sheep, or hogs, or hens. Really to win with any of these one must put his heart into the care he gives them. You can tell by the way a man speaks to his horses or other farm animals whether he is their friend or whether he looks on them as slaves to do his will. And you can measure that man's success accordingly.

The full barrel is always on the farm of the man that is working, not for to-day, but for to-morrow, and the next day, and the next. His eye and his heart are away on in the future, the time when he shall have a better farm, a better herd of cattle, a better flock of sheep, a happier home in every way.

Such a man gets the very most out of every day as it passes. He sets the right estimate on the present moment. He counts the dollars that come to him as only so many rounds in the ladder which shall at last bring him to the top.

And we want more such farmers—a lot more of them. We are going to have them, too. There are more men with shining eyes and the glad ring in the voice on the farms of this country than ever before. That is the most hopeful thing about the farming of to-day. It is producing a higher, worthier, more thoughtful farming class than we have ever seen in America in the past. But the highest compliment that could possibly be paid to our farmers is that they can do still better than they ever have done.

Edgar L. Vincent.

Disposing of the Old Horse

Our attention was called to the above subject in a direct way a few weeks ago, when a young man who had gone on a trading tour called at our place to ask aid in getting his horse on foot again.

His story, as he told it, was that he had ridden his horse on a long trip and had left him a short distance and coming back he found the horse lying down in the road and unable to get up again. I went with him and found an old, poor, feeble horse that had served out his days of usefulness, and which had been started out as trading stock. He was so stiff in his joints that he could hardly walk after he was on his feet again. He was absolutely valueless as a work animal. His owner said that he had traded for him a few days before.

The horse was not able to go on home, so his owner turned him loose in an old field where he died in a few days. This is only one case of many where the old horse, after he gets too old to serve his master any longer, is started out and traded from one to another until he is finally killed or turned out to die. A large number of our people seem to get nervous about disposing of the horse when he gets old. Would it not be much better to kill the old horse when his days of usefulness are passed than to start him out as trading stock and furnish an animal for horse traders to cheat someone with? Horse trading is bad enough at best, but when an old, infirm, worthless horse is started out from the farm where he has served perhaps twenty years to be a subject of barter, lying, fraud and all kinds of deceit, it looks like an ungrateful, heartless, dishonest way of disposing of the old horse. If we have nothing of value to dispose of it is best not to offer anything for sale or trade.

West Virginia. A. J. Legg.

The Pedigree

When one of my good pedigreed cows drops me a strong heifer calf, sired by a pure-bred bull, whose sire was from a good cow, and whose dam was a good cow, with many other good cows lending the glory of good work to the pedigree—when I have a royal calf from such an ancestral line, and I feed her well and care for her properly, and breed her wisely, I know I can be almost absolutely sure that she will be a good cow, a profitable cow. She will be a source of pride to me; a fruition of my labor; a reward to my intelligence; a proof that I have builded wisely and well.

And in a cow thus bred in the only way in which I know it is possible to breed a cow with any degree of certainty as to what she shall be, I have such an abounding faith that I do not adjudge her as unworthy her breeding and my keeping until she shall have freshened at least three times.

When you put the right kind of dairy breeding and knowledge into the making of a cow you have a legitimate right to bank on the kind of a cow she shall be.

W. F. McSparran.

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Good business sense tells you that every cow should return a fair percent of profit over cost of keeping.
To pay you a good profit the organs of digestion must convert the largest possible percentage of the food into bone, muscle, milk fat, etc.
If every cow, horse, sheep or pig, receives small doses of Dr. Hess Stock Food twice a day with the grain rations, they will pay a larger profit than is otherwise possible. Such medical authorities as Professors Winslow, Quitman and Finlay Dun endorse the bitter tonics contained in Dr. Hess Stock Food for improving the digestion, also iron as a blood builder and nitrates for eliminating poisonous material from the system.

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Live Stock and Dairy

Advanced Registry

Within the past few years almost every association of thoroughbred-cattle breeders has established a system of advanced registry, founded upon the principle that occasional individuals and strains in any breed possess to an extraordinary degree the points of excellence and particular functions characteristic of the breed. To reward, in some measure, those who have attained good results from careful breeding; to keep a tangible record of special excellence for the promotion of the general popularity of the breed; and to create a merit list from which superior animals may be selected for the purpose of heading herds—these are the essential reasons for having established a system of advanced registry in any association.

In the first place, no animal is eligible to be enrolled in the advanced registry if not already recorded in the regular register of pedigreed members of the breed. As a plea for advanced registry, an animal must either conform in an extraordinary degree to the ideal type of the breed as indicated by the score card, or must show an official record of superior performance "at the pail."

Advanced registry methods have found greatest favor among the breeders of dairy cattle. An official milk and butter record may be secured by conducting a test (usually seven days) under the minute supervision and inspection of a competent representative from either a state experiment station, an agricultural college, or from the headquarters of the advanced registry for the breed. The official inspector of the test is present at every milking; it is his business to prevent fraud, enforce the conditions laid down by the association, weigh the milk, and test a sample for content of butter fat, and in some cases for total solids. The inspector swears to the correctness of his reports, and mails them to the Superintendent of Advanced Registry. If the performance is above the minimum production established by the association for a cow of the age tested, the animal is enrolled as an "A. R. O." cow; this means Advanced Registry Official. Records marked "A. R. P." are merely private records, made by the owner of the cow, and not by an official inspector; the letters mean, Advanced Registry Private.

In case a cow already has an excellent pedigree, and afterward shows a high record in an official test, she is entitled to special credit; her value is thereby increased, and a profitable demand is created for her calves for breeding purposes.

A bull may be admitted to advanced registry on a score of points. as upon a specified number of his heifer calves having been previously registered as A. R. P. cows.

Advanced registry has resulted in bringing to the front the best individuals and strains in a breed; and it has served to emphasize the practical consideration that actual profitable production at the pail should never be given less attention than the score book. A fine pedigree record behind a cow is better than a phenomenal advanced registry record without a good family history, but both together are to be preferred to either alone.

The illustration on this page is that of the Holstein-Friesian cow, "Floa Pietertje Clothilde, A. R. O." She is owned by a practical farmer in northern Ohio; her record at three years old was in excess of that required of a full-aged cow. The owner of this cow is a creamery patron, but sells his young stock for breeding purposes. He affirms that in the case of his herd, advanced registry has a practical and financial value.

Ohio. GEO. P. WILLIAMS.

FLOA PIETERTJE CLOTHILDE—SEVEN DAYS' RECORD, 349 POUNDS OF MILK

What is a Well-Balanced Ration?

There seems to be some misapprehension as to the term "balanced ration." To take a practical illustration, we all know that we cannot live on potatoes alone, any more than we would expect a bullock to fatten on straw alone, simply because potatoes and straw are largely composed of one necessary constituent—carbohydrates. Most of our farm foods contain albuminoids or proteids, fats, and carbohydrates in varying proportions, besides water and mineral matter. While these various constituents serve different purposes in the animal economy, yet all are needed in certain proportions. The albuminoids, or "flesh formers," as they are called, go to produce muscle and repair the wear and tear that is constantly going on, while the fats and carbohydrates produce heat and energy. Although the proportions fed may, and do, vary with different classes of animals, yet all the constituents are necessary, namely: the albuminoids, to build up the machine, and the fats and carbohydrates to keep it running. A balanced ration, then, is simply one in which the feeds are mixed in the right proportion in order to provide the necessary constituents in such relative quantities as experience has shown to give the best results. The demands on the cow are great, therefore the food supplied to her should be relatively rich in all the constituents required for the maintenance of the body and the production of milk.

W. R. GILBERT.

Wintering Live Stock

Wintering live stock, economically is a great thing for every practical farmer. For the best results it is necessary, first, to provide a good shelter from cold and stormy weather. Much of the food is burned up within the animal for heat when not properly sheltered; second, to feed regularly and with care, to give the right amount so that nothing will be spoiled, and third, to prepare the feed in the best manner.

It is best to have all the grain ground before feeding, for the reason that much of the grain passes through the digestive system undigested, and some but partly digested. The hard shell on most grain does not permit the digestive juices to penetrate them, nor digestion to take place. When the food is ground the shell is removed, and the process of digestion is much easier.

It pays every farmer to get his grain ground before feeding. If once practised, he will soon notice results.

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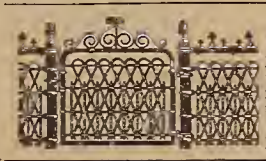

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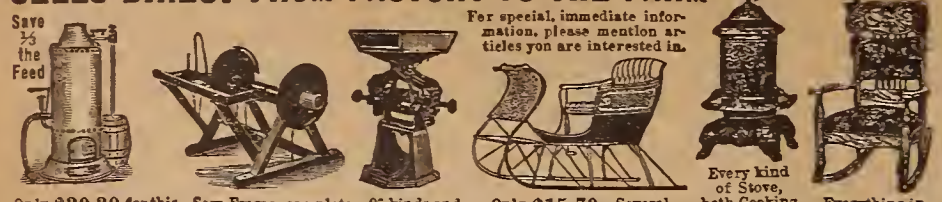

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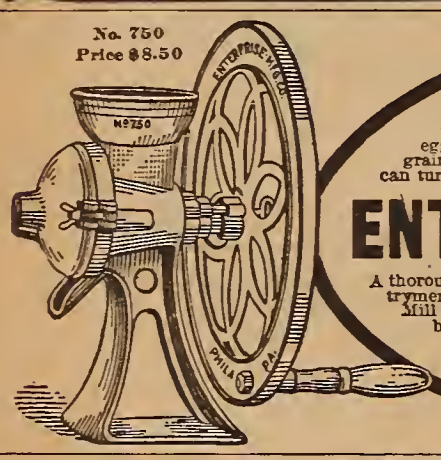

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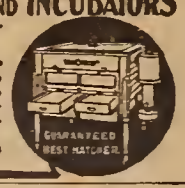

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Poultry Raising

Bran and Clover

A MESS of finely cut scalded clover, with bran, will be relished by all classes of poultry, especially if it is fed in a warm condition on a cold day. Bran contains a fair proportion of the phosphates, and for that reason may be used with the ration in order to render it more complete. It is not advisable to feed it in a soft condition if it can be used by sprinkling it on cut clover that has been scalded, although a mess of scalded bran and ground oats, early in the morning of a cold winter day, is very invigorating and nourishing. Four pounds of bran, mixed with one pound of linseed meal and a pound of ground meat, the mess slightly dampened, and fed to the hens once a day, allowing half a pint of the mixture to ten hens, will greatly add to the egg-producing materials. As a food for chicks bran should always be scalded and allowed to stand for an hour or two in order to soften, and it will then give good results, especially if mixed with equal parts of corn-meal. The clover and bran will be found a cheap ration, and should be allowed at least once every day.

◈

Old Hens or Pullets

There are experienced poultrymen who prefer pullets to hens, yet there is one fact not always overlooked, and that is to first get your pullet. What is meant by the expression is that an old hen cannot be superseded by the pullet without incurring the expense of hatching the pullet and caring for her until she reaches the laying age, which may be a whole year, if she is of an Asiatic breed. The pullet will consequently cost something, and the point to be considered is whether she is more profitable during her second year's existence than the hen that leads her by one year in age.

Estimating the cost of keeping a pullet, or hen, for one year at sixty cents, the cost of the fowl is lessened with each year that she proves productive. The main cost is that of sustaining the fowl the first year, and before it begins to lay. The estimate of this first cost does not apply to the expense of keep after it begins to lay. For instance, the one-year-old pullet costs sixty cents at the starting-post in the laying race, while the two-year-old hen costs the same, but the sum is divided between two years, or thirty cents per year. The three-year-old hen costs twenty cents per year, and the four-year-old fifteen cents per year, accredited to the first year's cost.

As long as a hen is laying she is profitable, despite her age, for it is well-known that four-year-old hens have made as good records as those younger, hence it is proper to mention that it is not always cheaper to replace a hen that has reduced her first cost to only fifteen cents per year with a pullet that must necessarily cost sixty cents. The old hen has forty-five cents the better of the start, and the pullet is an unknown and untried quantity that must undergo a comparative test with the maturer birds.

There is nearly always something wrong in management when a hen is considered old if but three years of age. She is then really in her prime, but has a greater tendency to fatten than the pullet. Fed on balanced food, and not overfed, the hen should give her full quota of eggs every year until six years old. A pullet may begin to lay before she becomes one year old, even if of a large breed, but she is not fully matured because she is laying. She continues to grow, fill out, and become complete in form, and she does not fatten quite as readily as the hen, for the reason that she requires food for the promotion of growth, and does not select the carbonaceous foods in preference to those rich in protein and mineral matter.

The eggs from hens are more uniform in color, shape and size, and the chicks hatched from eggs layed by hens at least two years old are, as a rule, more easily reared than are chicks hatched from the eggs of pullets. It cannot be denied that pullets have been known to produce strong and vigorous chicks, but the difficulty with a flock of pullets is that they are less uniform in many respects than are hens (with some flocks), their eggs being small, round or pointed, and not as suitable for hatching purposes as the eggs from hens. It is the well-grown, fully matured pullet that rivals the hen, but a matured pullet costs more than the pullet that begins to lay when under six months old, and which fails to produce her quota of eggs for the year by reason of beginning work before reaching maturity.

The matter of molting, or shedding of the feathers, in order to allow of the growth of new plumage, requires about three months, and if the pullet is hatched too early she is liable to molt the first year of her life, which is time that cannot be regained. It is encouraging that pullets do not molt during their first year, even when hatched in March, unless when forced too rapidly in growth, and it may be mentioned that it is an advantage to hatch pullets as early as March, if possible, because the early-hatched pullets are the ones that begin to lay late in the fall and give a profit during the winter. The hen also that begins to molt in the summer may apparently be unprofitable, but she should complete the process before winter and lay eggs during the cold months.

So much depends upon the breeds used that to compare hens and pullets requires an experiment for that purpose. The subject here referred to for the reason that many farmers and poultrymen favor using pullets every year, the hens that have reached the age of two years usually being marketed. Such a practise makes the layer unprofitable, because even if she shows an extraordinary record during the year, she has been really two years in the hands of the farmer, the first year being devoted to growth, and the farmer should deduct the first cost of the hen from the profits. It is more profitable to have a layer produce twice as many eggs in three years as another will in two years, consequently the pullet that lays one hundred and fifty eggs by the time she is two years old cannot prove as profitable as the hen that lays three hundred eggs when three years old. It is therefore a matter for the consideration of those who prefer pullets to old hens (or rather, hens) whether it is economical to keep a pullet a whole year before she lays, and then sell her when she is two years old, or retain her another year. It will probably be found better to keep all hens until they are at least four years old.

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Winter Foods

The change from the green food and insects secured during the summer to the grains of winter is one that may suddenly check laying. The farmer may condemn his hens for not producing eggs, but the cause may be a natural one. A change of location sometimes interferes with laying, and even the withholding of a favorite food will control egg-production to a certain extent. When a flock is removed from the orchard or grass plot, and can no longer secure a variety, the hens may cease producing eggs. This is due to several causes, one being that they do not have sufficient exercise, and are more subject to those ills which arise from being overied. Before winter begins the poultryman should store a supply of food that will provide a variety, including bulky foods. It is not necessary to feed a great many kinds of food, but to allow a varied diet, not only to promote digestion and increase the appetite, but also to supply the hens with the elements necessary to enable them to produce eggs during the season of the year when such articles are scarce. The best conditions are warmth, exercise, green food, and a variety. It is impossible for the hens to find green food and worms in the winter, but there is something for the hens other than grain. Grain is the best food that can be given in the winter, but used exclusively it will not make the hens lay. During the fall a few cabbages, turnips, and refuse potatoes should be placed where they may be conveniently had for a winter supply, and the use of finely cut scalded clover, with a mess of chopped meat two or three times a week, will afford a variety. The main object should be to afford the hens exercise.

P. H. Jacobs.

◈

If a firm spends thousands of dollars advertising an article, they must think you need it. This is what some concerns are doing every year. If you see anything in the advertising columns that interests you, write to the advertiser for particulars, and they will give your letter prompt attention.

The Industrial Situation in Germany

By Frederic J. Haskin

In some respects the industrial classes in Germany are less favored than workmen in either England or America. They have less leisure, fewer amusements, and a smaller amount of money to spend for either entertainment or living expenses, yet there enters into their lives none of the degradation and misery seen in England, nor the wastefulness and discontent so common in America.

In order to show the extremely low scale of living in Germany, a statement was prepared by a frugal, calculating factory workman. Instead of being an instance of exaggerated economy, a selection was made that is conceded to be a little above the income and expenses of the average toiler. Thousands of families in the German Empire actually live and acquire a competence upon a smaller stipend than this.

The weekly income of the head of the family is $6.42; the earnings of his wife and children are $3.33; and the income derived from keeping a young man lodger, 50 cents; total, $10.25. The weekly spendings, including everything, amounted to a total of $7.74. By figuring this to a total of fifty-two weeks, it shows his annual income to be $533.00 and his expenditures $402.48, leaving a profit of $130.52.

In order to live upon such a narrow margin, it follows that amusements must play a comparatively small part in the lives of the German working people, and such as they have are mostly confined to Sundays. As a rule they go in for few games. Football, cricket and baseball matches have little attraction for them. A case is cited where a final game between rival clubs of two manufacturing towns was attended by only sixty-five people. In England or America such a game would have brought out an attendance of thousands. Theaters and music halls are less numerous in proportion to the population than in other countries. The theaters in industrial towns are always run by the municipalities, and these places are visited by the working classes to a limited extent only on Saturdays and Sundays. Contrary to the general impression, the German laborers do not spend much money for drink. The older men cannot afford it, and they set a good example for the younger ones. If any one amusement were designated as being particularly characteristic of the German working classes, it would appear to be dancing.

Although his wages are low and his entertainments few, the conditions which surround the German laborer in his work are more satisfactory than those encompassing the higher-priced workers of other nations. Every factory must have a set of rules in a conspicuous place in each department. These regulations are legally binding on both employer and employee, but before they are posted opportunity must be given to adult workers to express any objection they may have to them.

Among the obligations of the employers is the understanding that they must arrange and maintain the working appliances, machinery and tools in such a way as to protect the operators from danger to life and health, as far as the nature of the business will allow. Provision must be made for sufficient light, air, space and ventilation, and for the removal of all dirt arising from the work. One commendable protection is that broad gangways must be provided, and all dangerous pieces of machinery shielded by barriers. The aisles of all factories must be kept clear, and gangways are never seen filled with heaps of half-finished articles, as is customary in England and America.

Aside from having more room, German factory employees are well provided with sanitary washing and dressing accommodations. The workmen are more cleanly and more careful in their habits than ours, and because they usually change their clothing before and after work, lockers are provided for them. Shower baths with hot and cold water are common in most places, as well as dining-rooms, where the laborers may have their food heated. Each of these factory dining-rooms will probably have a library and a piano, and may be used for meetings, games, or for choir practise.

The Welfare Institute is merely an extension of the idea developed by the factory dining-room. This is a large building, surrounded by attractive grounds, which contains a large festival hall suited for all sorts of social functions, committee meetings, or rehearsals of choral societies. One large room is used as a kindergarten and handwork school. Similar rooms are devoted to teaching boys carpenter work, and for giving cooking lessons to the girls.

Under the same roof are modern baths, the showers being free, and hot baths costing only five cents. There is also a modern steam laundry, which does all the work for the family of any working man for ten cents a week. The Welfare Institute originated with the municipality, but the private firms of Germany are now beginning to support them, and the liberal spirit they represent is destined to play an important part in German industrial life.

The workingman's obligatory insurance law in Germany is an ideal scheme which was founded in the interests of the working classes. This provides that each firm must establish a fund, to which the employers contribute one third, and the working people two thirds, the rate of contribution being three and one half per cent of the wages earned. The benefits are sick pay for members for twenty-six weeks to the extent of half the average wages, including medical attendance, drugs and free hospital service.

A half-rate is made to the families of all members. The scheme includes a provision for funeral expenses, and an allowance for widows and orphans, so that protection is made against almost any contingency that might arise in the lives of the workers. And the strong point of the system is that it is not charity; it is the laborer's own savings that are used in his behalf.

There is also a compulsory savings bank, to which all the people in the factory must contribute. Married men deposit five per cent of their wages, and unmarried men ten per cent, unless they have mothers or sisters dependent upon them, in which case they pay the same as if they had wives. Each laborer must allow his savings to accumulate until they have reached the sum of five hundred dollars; after that he is free to use his wages as he pleases. This nest egg can only be disturbed for the purchase of a house or for furnishing a house in case of marriage. Six per cent interest is paid on all deposits in these compulsory savings banks.

A GERMAN MECHANIC

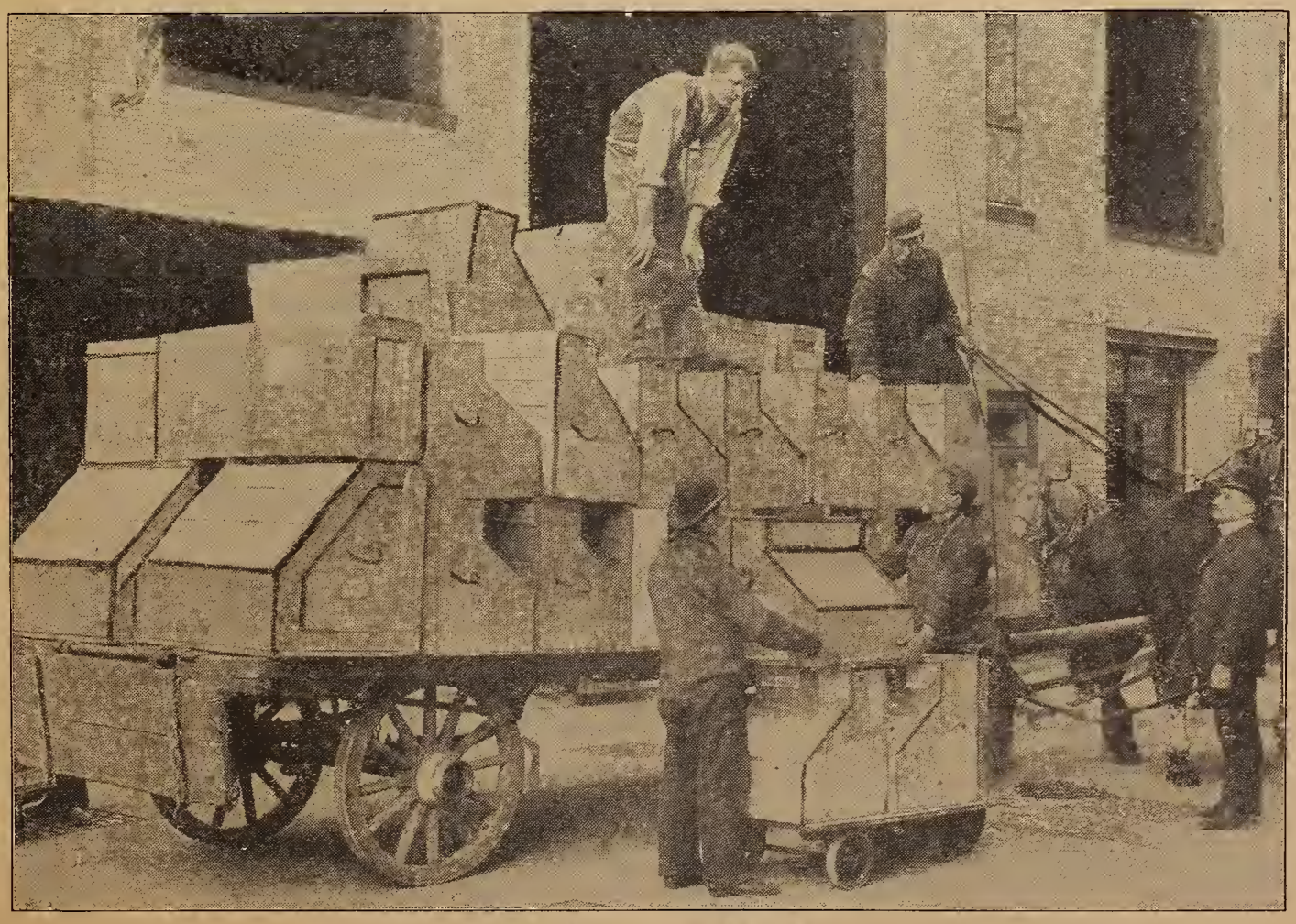
Germany has made greater progress along the lines of industrial education than any other country. The argument in favor of teaching trades in schools rather than letting boys pick up knowledge in a haphazard manner, is that a boy may have a negligent father or careless instructor who may cause him to commit errors or execute his task clumsily. An incentive to industrial education is the law providing that a boy who makes headway with his studies is entitled to the privilege of reducing his term of military service from two or three years to one year. One often sees this advertisement in the paper: "Wanted, a boy possessing a certificate for one year." The Germans undoubtedly believe in Bismarck's famous utterance that "the nation that has the schools has the future."

In some towns in Germany the inhabitants are nearly all identified with one industry. In Solingen, for instance, twenty-nine thousand people are engaged in the cutlery trade. The art is a very ancient one and is believed to have been brought from Damascus after the crusades. In the early times the method of registering a trademark was to have the local authorities nail it on the church door. The famous sign of the twins, which is still in use, thus secured its validity in 1731. An extraordinary thing about the cutlery trade is the incredible variety of knives made. One factory has ten thousand different patterns on its books; and still adds a number of new designs each week.

The German toy factories annually manufacture fifteen million dollars worth of toys, three fourths of which are exported. The two towns of Nuremberg and Sonnenberg supply about ninety per cent of the whole. Like the cutlery trade, the toy industry is an ancient art. Every year millions of tin soldiers representing the armies of every nation, are sent to market. The little figures are cast in molds of slate, which have been fashioned from drawings. Nearly all the tin soldiers are painted in private families. The difference between Nuremberg and Sonnenberg is that the former makes playthings chiefly for boys, while the latter center sees that the future mothers and housewives are well equipped with miniature household articles.

The toy artisans in these great centers have become exceedingly skilled from long practise and turn out mechanisms that are remarkably clever. In almost any city in the world a crowd can often be seen around a pedler, who will spread down a carpet on the pavement for the display of lively automatons. Sometimes it is a mouse that runs about, a pair of miniature boxers, or a couple of fighting roosters, but in most all instances these devices hail from Nuremberg. There is much truth in the old rhyme which says: "Nuremberg toys all the world enjoys."

The balance of trade between Germany and the United States shows that we sell to Germany about one hundred million dollars' worth more goods than we buy, principally cotton, copper and petroleum.



AMERICAN GOODS IN GERMANY

The Grange

Changing Dates of National and State Granges

The proposition to change the date of the National Grange from November to October and those State Granges meeting in December to November is being largely discussed.

While some are opposed to the innovation, there seems to be a general sentiment that better results would be accomplished by the change.

The National Grange is the great event in Grange circles. The State Grange is the one event of the year for the various states. Unconsciously we adjust ourselves to beginning a work after that event occurs. The long winter evenings are the richest of the year for Grange work.

If the State Grange met in November and officers of Pomona and subordinate granges were elected at that time the Granges would be ready to enter on an aggressive campaign for the winter and get the greatest good. A change in the constitution will be necessary, and it will doubtless come ere long.

The Ohio Plan

Another matter that is being discussed is the Ohio plan of a home reading-course for the granges. Many states have tried to establish such a course in their granges, but the complaint has always been that the members were not ready for it. The work was not pushed aggressively, and it was finally dropped. But the Ohio plan has been generally accepted as a good working system, and will be introduced into many states.

Many young people, and also older ones of intelligence, who desire to add to their store of knowledge could well organize granges in their localities for the advantage this offers. One bright young man, whose travels have taken him all over the world, remarked that an organization that offered such advantages ought to be supported even if for no other reason than that it had the foresight to establish such a system as this.

There is one gratifying feature. Those who have aimed to start a system of reading in their states are generous in their support. They realize the obstacles, natural and artificial, in bringing to a successful issue a work of this kind, and they are ready to join hands to make it a success in their respective states. Such genuineness and disinterestedness will conduce to the growth of Grange work in all lines of endeavor.

Degree Work

As granges advance in culture greater attention is paid to the esoteric work. The lessons of the Grange are beautifully taught, and one cannot but be richer and better for perceiving them in their spiritual significance. The beauty appears when those presenting the various charges have entered into the spirit and made them a part of their life. It would seem good that a number be designated to perform this work, and continue from year to year, growing in skill.

There is no organization better loved, no order where there are greater possibilities for good than the Grange. But because of jealousy that blights, many who would do effective work are driven from the order. Keep them with you. Let them work as hard as they will and know, that your community will be brighter and better for your helping.

Fairfield County Pomona

One of the most successful Pomonas of the year was held at Lee-Union Grange, Carroll, Ohio, Oct. 28th. Pomona has only been organized a little over a year, but it numbers about one hundred and seventy-five. Rain poured in torrents in the forenoon. An elegant dinner was served, and patrons who could possibly reach the hall came. By noon the clouds had lifted and each of the five granges sent representatives. No session was held till after dinner. Pomona Worthy Overseer Brunner, Master of Lee-Union Grange, presided, in the absence of Master Tussing. Business was dispatched with promptness. Committees took charge of all work that could properly be referred to them and brought in their reports. The discussions were animated and pointed. A great deal of business was disposed of.

I have never been in a meeting where there was as little loss of time or greater interest and precision in the work. A legislature committee for the country was appointed, consisting of J. M. Brunner, H. C. Detwiler, and J. H. Downhour. Resolutions were passed, favoring manufacture of all text books and school supplies in the penal and charitable institutions of the state, a uniform system of text books, and mandatory county supervision of schools with optional township supervision, heartily commending State Master Derthick for his splendid fight for equality of taxation, and pledging him hearty support in future battles, and pronouncing against side-shows and fakirs at the county fair. This last brought out an animated discussion, but the vote was unanimous against side-shows.

R. J. Tussing, Superintendent of Agriculture and Horticulture, Jamestown Exposition, explained the scope and importance of the work, and asked granges to contribute.

The granges of Carroll County are giving attention to all phases of Grange work. The Grange is said to be the best secret organization in the county. Unlike any other county of the state it voluntarily raised its initiation fees and dues to the maximum amount, instead of organizing on the minimum. As much care was exercised in organizing the Grange as in inviting friends to the home. In this way parents can send their children and young people, knowing that only the highest type of morality and intelligence will be found. The result of this care is manifest after three years of the experiment, in devotion to the order, intense interest, and a feeling with each that each has something to do and can do it. If anyone would ask of what good a Pomona was to a county this meeting would answer it. Dignified, alert, keen, carrying on the esoteric work with precision that bespoke practise; enthusiastic, good-natured, sinking personalities in a genuine desire to bring good to all—this was the spirit of the day, and its blessing cannot be told.

Home Reading-Course

Have you investigated the Home Reading-Course the Grange offers in domestic science and agriculture in connection with the State University? If not, don't you want to before the long winter evenings come? The character of your summer's work largely depends on the way you spend your winter. I would have every one look back regretfully at the fleeting days because they were all too short to accomplish what was desired. Give us the quality of those pioneers, who made a name and a fame for our country, who found no hardship too great, no hazard too perilous to keep them from reading the blessed pages of literature. In that famous instrument, the Ordinance of 1787, Manasseh Cutler penned these immortal words, "Religion, morality and education being necessary to good government, schools and the means of education shall be forever encouraged." "The means of education." what a comprehensive term! The means are at hand. It depends entirely upon the individual whether he will use them or not. First study your business and make it profitable, then will you have the wherewithal and the leisure to secure other desirable things. Our celebrations of great names and famous events are because of beginnings. Will you be the beginner in your locality?

Secretary Wilson, Department of Agriculture, writes: "I congratulate you on the excellent tone and inspiration of this literature, and have no doubt that you will accomplish a great deal of good by your intelligent efforts."

C. G. Williams, of the experiment station, says: "I think the bulletins issued are admirably adapted to the work for which they are intended. I wish every Grange in the state might take up the work under your committee."

A. S. Wakefield, son of ex-president Wakefield, of Hiram College, writes: "Our Pomona wants the work brought out at its next meeting. I believe a working class will be the best argument. I feel that I owe much to the work and want to do all I can for it."

"This is the noblest work of the present century, the extension of education into the country on the scientific basis," writes M. J. Quinn. Theo. L. Garber, Secretary of one of Richland Connty's splendid Granges writes: Jefferson Grange has about one hundred and fifty members, of whom about thirty are young people, and we want to take the educational work."

Is the work hard? Yon will find it hard to get along without it.

Inquiries gladly answered. Address all communications to Mary E. Lee, Supt. Home Reading-Course, Westerville, Ohio.

Juvenile Granges

The strength of our order lies in the fact that father and mother and sons and daughters over fourteen years of age meet together in one common place, and all take part in the discussions and the life of the Grange. But what has the majority of the granges done for the younger children of from five to fourteen years? Are their years not worth the training? Ask the Roman Catholic Church, which loses fewer members than any other. Ask educators, and they all unite in saying that the most precious years of a child's life are those when they are as clay in the potter's hand.

So we argued in Darke County, Ohio, and organized a juvenile Grange at German Grange, June 10, 1900. The work was so good, the gospel so excellent, that we kept preaching it to others, and at one Pomona meeting held with German Grange the juveniles conducted one entire session which pleased the members greatly. Two years later Sugar Valley Grange organized a juvenile. In 1905 Concord Grange followed. All were supplied with rituals by the subordinate granges, and the badges were made by the little ones and the mothers. We are proud of the work we have done, but it is not a modicum of what we ought to have accomplished. These juveniles go into the subordinate grange when old enough, and all agree that they make the best possible members.

Elated with success we organized a juvenile Pomona in 1906 to meet at the same time and place with Pomona, excepting winter meetings, when the children are in school. If Pomona will change its meeting from Wednesday, to Saturday, the children can attend every meeting.

Now brothers and sisters interested in juveniles, take courage. They told me, "Oh, its no use, the children won't take any interest." Others said, "There is not enough to do any good." We went forward in faith, and as our faith so has it been to us.

Sister C. E. Harris, Darke County, Ohio has encountered the usual difficulties in starting a new work, but she is abundantly justified for her belief by the results obtained. The juveniles are a fine lot of young people and as much or more interested than their elders. "We have to go to Grange because the children won't stay home," was the comment I often heard. Mrs. Harris is entitled to much praise for her unselfish efforts, for they have been without money and without price.

A Tax-Commission

State Master Derthick, in 1904, recommended the appointment of a non-partisan tax-commission to investigate the tax system of Ohio, to the end that a more equitable plan might be devised. The State Chamber of Commerce is pressing the proposition with vigor. Possibly no state in the Union has so unsatisfactory a system as Ohio. The constitution provides for taxation of all forms of property except bonds, recently exempted, at a uniform rate, based on its true value. The result is that less than ten per cent of the personal property is on the tax duplicate, less indeed than was returned ten years ago. Farmers own about twenty per cent of the capital and pay about eighty per cent of the taxes. Tax experts say that if an equitable system were devised the rate would not be above one eleventh of a mill.

The grange should press with vigor the plan suggested by Mr. Derthick. People are in revolt against the burdens imposed, and are determined to relieve themselves. They are rallying to Mr. Derthick in his fight for an equitable distribution of the burdens of taxation.

Mary E. Lee.

Beginnings of Agricultural Education

With the interest in our Home Reading-Course in Agriculture comes a desire to know something of the history of Agricultural Education. We want to know whether we are really taking a step forward, or that history is repeating itself.

A striking coincidence comes to interest us in looking up this history. Just one hundred years ago, in 1806, we find the first school of agriculture in the world was founded by Fellenberg, at Hofwyl, Switzerland. His pupils were from the poorest of peasantry, of whom he truly observed that having "no other property than their physical and mental faculties, they should be taught how to use this capital to the best advantage, with the combination of dicipline, study and manual labor."

History goes on to say that this first school of agriculture flourished for over thirty years with no less than 3,000 pupils. The state of Ohio had over 40,000 farmers and had been admitted to the Union before this first school of agriculture had been formed.

In 1847 John P. Norton, agricultural chemist, who had just returned from England, agitated the question of agricultural schools in the United States, and one was started. In 1860 it was liberally endowed by Joseph E. Sheffield and attached to Yale College.

In 1862 Congress passed an act donating public lands to the several states and territories to provide colleges for the benefit of Agricultural and Mechanical Arts. The object is briefly stated in the act: "to the endowment, support and maintenance of at least one college, where the leading object shall be (without excluding other scientific or classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanical Arts, in such a manner as the legislature of the states may prescribe in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." It is needless to say that the states were not slow to avail themselves of this grant, and with other states Ohio took advantage of this act.

From the universities have sprung the experiment stations, and from these the school gardens. The striking thing about the history of this most important branch of study is that it is all so extremely modern.

Schools of music were known to the Hebrews and Greeks. Medicine was taught in Alexandria 300 years before the Christian era. Law has been studied since the time of Moses; but the art of agriculture, which has been followed since the day Adam fell, and by nearly as many people as in all other occupations put together, is the last to have any real educational history. This rapid progress has not been made by men individually, but by the successive leadership of many.

A history of agricultural education in the United States would be incomplete if we omitted the fact that it has for the last forty years been supported by the Grange. Each step in its advancement has been urged by that body of men and women working together "to promote the welfare of our nation and of mankind." That organization whose primal idea is educational, in its effect on its members and with unsystematized reading has been able to foster in some degree a love for the true culture of the farm. Still not being satisfied with helping to bring agricultural education to the state and into schools, the Ohio Grange, now seeks to bring it to every farm home, and give a part of a university to the farmers everywhere within the limits of the state.

So, now, in the year 1906, just one hundred years after the establishment of the first school of agriculture—after a year of experimental work—the Ohio State Grange unconsciously and without design makes a fitting celebration of the first centennial year of agricultural education.

As to the importance of this, let it be remembered that after all the present tendency to other activities and to city life, the normal home is on the modest well-kept farm; a home resourceful, cultured, loved. It is the one hope of a future socicty that will be peaceful, free and happy. Next to our religion it ought to be nurtured and maintained.

Ohio. A. S. Wakefield.

You are no doubt very busy just now, but we trust that you will take time to read the advertisements in FARM AND FIRESIDE this issue. There is such a big variety of good things that you are sure to find something you need.

The Quaint and Curious Customs and Traditions of Christmas Eve the World O'er

INNUMERABLE traditions cluster about Christmas eve. Many of these superstitions have been handed down through the years.

The lamp or candle must not be allowed to burn itself out on Christmas eve or there will be a death in the family within the year.

The Sicilian children place pennyroyal in the beds, because they say it always flowers at the exact hour of Christ's birth.

At midnight on Christmas eve, the oxen are said to kneel in their stalls.

If you lie in a manger, in a stable, at midnight the future is open to your vision.

In Germany, it is believed by the superstitious that horses and cattle have the power of speech on Christmas eve.

Among the Czecks, the legend runs that he who most strictly fasts on Christmas eve will see the Holy Child in his dreams that night.

On that one night, it is said, the lost spirits have rest. Judas Iscariot may sleep; Herod ceases to clank his chains; the daughter of Herodias may pause in her endless dance; the Wandering Jew ceases his weary steps; the spirit of Pontius Pilate rests for that night from his roamings in the gloomy forests of Mt. Pilatus.

Wherever a church may have stood, though no trace of it be left, it is thought that singing of chants and sounds of bells may be heard on Christmas eve.

In the Black Forest region of Germany, there is a tradition that on each Christmas eve the Savior comes to earth in the guise of a poor boy and asks alms at the house doors. On that day no beggar is refused food and shelter.

A live coal should never be carried out of the house on Christmas eve.

In some districts of Germany it is thought that between 11 and 12 o'clock on Christmas eve, water may be turned into wine.

A Montenegrin tradition about Christmas eve is, "To-night earth is blended with Paradise."

Some tribes of the Canadian Indians believe that on Christmas night all deer kneel and look up to the "Great Spirit."

A saying in England on Christmas eve if the cock is heard to crow is, "The cock crows for Christmas," and they add: "No spirit can walk abroad." Shakespeare has expressed the tradition thus:

"Some say that ever 'gainst that season comes
Wherein our Saviour's birth is celebrated,
This bird of dawning singeth all day long.
And then they say no spirit dares stir abroad;
The nights are wholesome; then no planets strike;
No fairy takes, nor witch has power to charm,
So hallowed and so gracious is the time."

In the German Alps it was held that on Christmas eve, "cattle fell on their knees in adoring worship," being given the power of speech during that one night; but woe to the person who listened to their talk, for the reaper death would surely find him, let him hide where he would, before seven days were passed.

It is said that the popular tradition of the entrance of Santa Claus by means of the chimney arose from the story of Hertha, a goddess of the Norse mythology. When the festival in her honor was celebrated, an altar of stones was erected in the house and fir branches were piled upon it and set on fire. Through the dense smoke made by the green wood the goddess was supposed to descend and extend her influence according to the petitions of the worshipers.

In Germany it is "Kriss Kringle" (a corruption of "Christ Kindlein") who is supposed to descend the chimney with gifts for all good children.

Many flowers are believed to have sprung into existence the night on which the Christ child was born.

The black hellebore, or Christmas rose, is also called "Christ's herb" because "it flowereth about the birth of Christ."

The "star of Bethlehem" was so called because of its resemblance to the star which guided the Magi.

In France there is a pretty legend of the rose-colored *sainfoin*. When the Babe was lying in the manger, it is said, this plant was among the grass and herbs which composed his bed; but suddenly it opened its pretty blossom and formed a wreath for his head.

The cutting of the Yule log to fall the wrong way is a token of ill luck to the peasant of the Black Mountains. The logs are drawn to the house and leaned against the wall with the cut ends uppermost. If one by mistake is reversed, the whole thing has to be done over again or else misfortune will come to the family. When the fire is lighted, there is great joy in the household. But no one on any account must speak of witches after the great log is placed on the hearth, for they are supposed to be flying around on Christmas night as "plentiful as sparks."

There's a peculiar superstition in Montenegro where the peasants believe that the iron kettle chain over the hot fireplace will not heat at all on Christmas night, as at all other times, but remains cool to the touch. To explain this they claim that a similar chain hung over the fire built on the floor of the stable at Bethlehem, and that at the birth of Christ, the virgin mother grasped it for support. It became cool at her touch lest it burn the saintly hand.

JANE A. STEWART.

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CHRISTMAS IN MERRIE ENGLAND

CHRISTMAS in America and Christmas in England are much the same in general significance and practise. Naturally, the older country preserves more of the picturesque traditions and superstitions of former times, some of which can be traced back to the earliest Saxon days.

At Cumnor, in Herefordshire, every Christmas morning after church the villagers adjourn to the vicarage, where they feast on beer and bread and cheese which has been provided for them. Nor is the giving of this feast considered a kindness on the part of the vicar. The custom is so old, that the parishioners now claim the meal as their right.

In the country districts of western England and some parts of Wales the people all turn out on Christmas morning to salute the apple trees. The villagers meet before daybreak, with the parson of the village church, the beadle, parish clerk and the schoolmaster at their head, and, forming in line, march to every farm, visiting each large orchard in turn. The owner of each orchard receives them and conducts them to one of the best trees on his place, which is considered as the representative of all the others. The entire procession gathers around this honored tree while some well-known man sprinkles it with a bottle of cider, and thus invokes it in quaint and heathenish fashion:

O tree! O tree! O tree! Bear fruit and flourish.
Thy owner nourish.
Give wealth and plenty.

The superstition is that every orchard thus honored will be profitable to its owner during the ensuing year.

Photo by Will Helwig

A STOCKING FOR GRANDMA

Many of the people of Glastonbury, in Somerset, where the first Christian church is said to have been erected about A. D. 60, are still believers in the miraculous properties of the famous "Glastonbury Thorn" that blossoms at Christmas-tide, and is then duly honored. According to tradition, Joseph of Arimathea, who buried the Savior after the crucifixion, came to England bringing with him the holy grail or chalice used at the last supper. Landing at Glastonbury, he traveled inland and sat down to rest at a spot now known as Weary-All Hill. He thrust his staff of hawthorn into the ground. It immediately sprouted, and grew into a tree that was venerated as a holy relic. But iconoclastic science does not spare us this pretty little tradition, for modern botanists say that there is a variety of hawthorn that always blossoms just at this season. Despite this fact, however, on every Christmas morning a number of old men and women may be seen at Weary-All Hill in meditation and prayer.

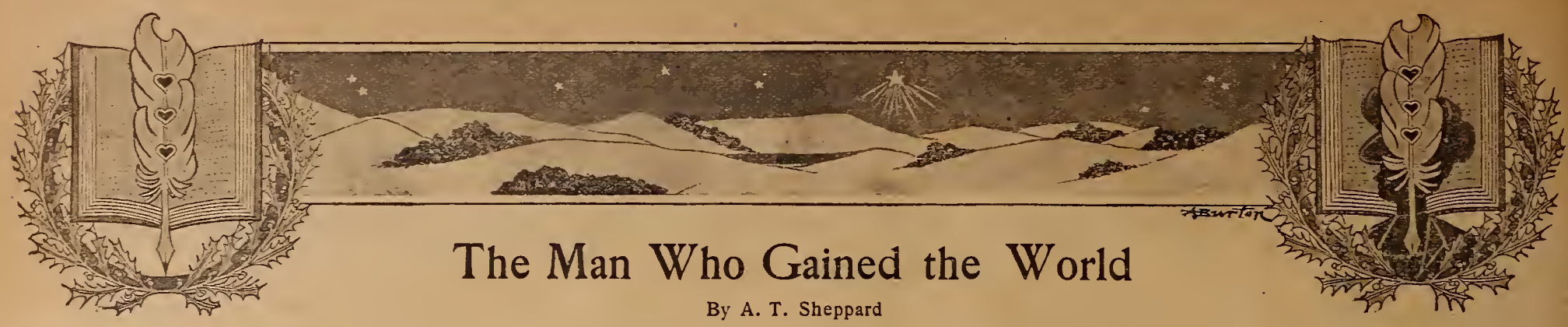
The Yuletide feast is still generally observed in the North of England and in Scotland. This custom is believed to be a survival of the ancient sun worship at the winter solstice, and is supposed to have come to Britain from Scandinavia. The wealthier villagers invite their poorer brethren to their homes to celebrate the Yuletide. A great meat pie is prepared, generally in a form shaped like a coffin, which is supposed to represent the manger in which Jesus was laid. In some places, however, the pie is still made in the form of a pig, presumably a survival of some old Teutonic custom. The pie is surrounded with candles, and when all are seated these are lighted by the master of the house. It is regarded as a bad sign to have one of the candles go out before the conclusion of the feast, and the person sitting opposite the extinguished candle is marked for particularly hard luck. It is from this custom of placing lighted candles around the Yuletide feast that the Germans, and from them the English, and we Americans as well, have derived the similar custom of placing candles on Christmas trees.

The ceremony of bringing home the Yule log is still largely observed in the North of England. This custom also is a survival of Saxon England. But instead of being burned on the hearth of the lord's great hall in accordance with the ancient custom, the log is now taken to the village and chopped into blocks for distribution among the poor.

But in no other part of the British Islands have so many old customs and superstitions lingered as in the Highlands of Scotland. The first person to open the door of a house on Christmas morning is regarded as particularly lucky, and his success in the coming year is supposed to be assured. Many people do not go to bed at all on Christmas eve, so as to be able to be first to open the door as soon as midnight has passed, just as in this country many sit up all night to greet the New Year.

Another ancient custom practised in the Scottish Highlands is that of sending a servant from the house early on Christmas morning to draw water from the well or spring, to take corn from a sack in the storehouse or barn, and to gather kail from the kitchen garden. The proper performance of these duties is supposed to insure luck and prosperity to all those who live under that roof for the ensuing year.

Curious Christmas customs are by no means confined to the remote rural districts or to the superstitious and ignorant. In London the "Waits" still go around the streets after midnight for a month preceding Christmas day, playing Christmas songs. This is particularly the case in the East End. Often three or four parties of these itinerant musicians may be heard playing "The Mistletoe Bough" at two or three o'clock in the morning, when a keen east wind is blowing, or perhaps snow is falling.



The Man Who Gained the World

By A. T. Sheppard

A Strikingly Interesting and Imaginative Story, Telling of the Wonderful Vision that Came to John Munday on Christmas Eve

ON CHRISTMAS eve in the pompous dining-room of a pompous house in a pompous West End square Lucullus was dining with Lucullus. A sleek white-haired butler crept about his work as noiselessly as a cat. Electric lights glowed through heavy prisms on silver and glass and wine. Heavy curtains hung over the door; heavy curtains surmounted by cornices of gilded wood with trumpet-blowing cherubs perched on massive golden clouds screened the high windows. Everything in the room was heavy, pompous, solemnly respectable. On the somber mantelpiece were somber bronzes by Bouret—corner figures of Fame with her trumpet, Music with her lyre, and in the center Science holding a globe in which a somber-faced clock was ingeniously inserted. It ticked very gravely. Even the bronze draperies of the different figures looked as if they had been arranged in exact deference to the feelings of the room.

John Munday, dining on this twenty-fourth evening of December with John Munday, did not seem to relish his company. Perhaps he was thinking of a voice that had so often been nagged and bullied into tearful silence at the same table that it had sunk at last into profound and unbroken silence. Perhaps of another voice, a young and merry voice, that still—a little sadder perhaps—joined its small quota to the volume of the world's living sound. Perhaps he was only thinking of his wealth, his liver, or his dinner.

Now and then he snarled out caustic comments on the cooking, the wine, the noises of the square. There was no one to order the servants to wheel his chair away when he had had enough, as Lady Holland used to serve My Lord. He worked stolidly through course after course. A prim-looking grandmother on a wall behind him gazed down at his massive back and thick neck as if in disapproval. A hungry-looking grandfather, facing him with eyes in which traces of the rake seemed to lurk, glanced from the other wall enviously, as if wishing that his own time for feasting had not long been over. Munday flung aside his napkin at last, and went into the smoking room. The too ample meal favored leisure; he sank into a great chair before the fire. His cigar was lit. Coffee, liqueur, the latest review, and the evening papers carefully warmed, were placed on a small table at his elbow. A footman entered with letters.

"Put them on the table," growled the master. "Clumsy idiot!" The lad splashed a little coffee in shifting the tray.

"Beg pardon, sir," mumbled Darby, and went out fuming.

"Come here!" Munday shouted. "Are those carol singers at the door? Send them away—threaten them with the police. And try to leave the room a little more quietly."

Munday left his letters for later reading and took up the review. An article on "Science and Eschatology" caught his eye. He was turning the pages when one paragraph attracted him. "From the time of Heraclitus," said the writer, "the theory that the world would ultimately be destroyed by fire has appealed to thinkers and visionaries, and has been embodied in systems of philosophy and religion. The Stoics held this view, though they believed also that the old order of things would rise again, phenix-like, from the ashes of the past. Thus, in another age, according to this theory, the writer of this article will be writing the same words again for the same review, in the same room, in the same city—everything repeated, resolving itself again into fire, and being again repeated for weary eternities. The early Christians found their teachings as to a fiery judgment on the iniquities—" Munday skipped a few paragraphs— "The calculations of the eminent German astronomer who has recently predicted the termination of this world's existence through contact with a comet—"

"Mr. Faber!" announced the footman.

Munday put aside the review, and rose to greet a clergyman, clean shaven, white haired, with a keen, young-looking face.

"Sorry to disturb you so late, Munday. I thought you wouldn't mind. Christmas week's a busy time, and I particularly wanted to see you."

They had been at school together, and now Faber was vicar of a neighboring parish. Occasionally they met in the streets and exchanged nods. "Glad to see you," said Munday, a little suspicious as to the object of the visit. "Have a cigar?"

When the church had been struck by lightning, Munday had declined help because he considered such an act of God a distinct indication that the steeple was not required.

"You'll find it difficult to find an excuse now for not giving. We're wanting to give a treat to some of the poor in our parish on Boxing Day; Christmas fare, you know, and hampers and a tree for the children. I feel convinced—"

Munday shifted his position rather ominously.

"I feel convinced that you won't mind my asking you to contribute—"

"Not in the least," said Munday, frowning, and pressing the tips of his fingers together, "I've no objection to your asking. But I can find plenty of excuses—or reasons, rather—for not giving. A hundred excellent reasons. I fail to see, first of all, why I should encourage the lazy and incompetent—"

"Not lazy. Unfortunate," interrupted Mr. Faber.

"Incompetent. I fail to see why I should pay heavy poor rates, and then have to support a number of idle wastrels who have no claim upon me. I fail to see how a meal or a hamper or a Christmas tree can do any permanent good to—"

"But," broke in his visitor, "if they make the lot of the poor a little brighter! If they give them one happy day in the year! You don't know how they look forward to these treats, and what a bright memory they give them, and how much pleasure—"

"My dear Faber, I've just finished a—well, a very fair dinner; but I had to work for it. Let them do the same. It's all nonsense about their not being able to get work. They don't try. They set about it in the wrong way. Oh, you needn't look like that. I know what I'm talking about. You forget that I'm an employer of labor. Look at the hundred-odd clerks I pay wages to; not more than a dozen of them, all told, really earn their salaries. Send me along some lad who's smart and worth his salt—not the old, they've missed their chances—but some capable lad who'll prove that he's worth more to me than most of them are, and I'll give him his chance. That's my notion of philanthropy. I've had to work myself. Ever since I was fifteen I've worked hard. And I've succeeded. Brixton, Clapham, Kensington, Belgravia—there's my track. I paid thirty shillings a week for my first rooms, board included. I'm paying three-fifty a year for this house. And I've not asked help from anybody. No one's given me a penny since boyhood. People can help themselves if they like."

Faber rose. "Perhaps you've been indebted to more people than you imagine, Munday," he said. "Whether one admits it or not, we're all linked together in this world. Because you're a rich man, and because it's Christmas time, and because—"

"No more reason for encouraging incompetence in December than in June. I'm a rich man? Yes, and I'd soon be a poor one if I wasted my money in giving away free meals and Christmas trees. Look at these letters, now. I'll warrant half at least are from beggars." He tore one open. "Free breakfasts to the poor." Another. "Christmas Appeal." A third. " 'To the Charitable'—meaning me. The same parrot cry in each; 'Give, give, give.' This too—"

But at the next letter Munday paused, frowning. The address was in a woman's writing.

"Another beggar," he said, dropping his voice on the latter word, and put the envelope aside unopened.

"Well, I'll be going," said Faber. "There's only one thing more I should like to say. I asked you for help not only on behalf of the poor, but on your own behalf as well. In the great day of judgment, we are told, it is those who have visited the sick, relieved the prisoners and clothed the naked who will receive our Master's 'well done.' Our views differ, I know, but even men who find difficulties in the creeds are in sympathy—"

The door closed. Munday rang the bell for the visitor to be shown out, and glanced again at the unopened envelope. Apparently the writing awakened old memories. He sat for some minutes with the letter in his hand; in the other, an ivory cutter again and again threatened the lapel, and again and again was removed. A vision of a little bedroom passed across his mind, a little bedroom, lit by a flickering night light; he saw a young man creeping on tiptoe across the floor; there was a little sleeping form curled under the red counterpane, and flushed cheeks swept by long, closed lashes pressed the pillow, and a stocking, limp when the man entered, was left bulging with delights. But he saw again, and his face set in harder lines, a little group in the dining-room he had just quitted. The child was there, grown to womanhood; her eyes, at first pleading and coaxing, became stubborn and defiant. His wife was there, faded and timid and anxious; she was talking some sentimental nonsense about true love, and was shouted down. And there was a lad facing him, a stranger, though Munday's wife and daughter had met him at a boarding house by the sea. He remembered how he had met the lad's request with contemptuous refusal, a refusal unconditional, unaffected by talk of prospects and ambitions.

Well, they had defied him, and taken their lives in their own hands. A son was born, she wrote, thinking that her happiness might soften him. He did not forgive. Misfortune came, she wrote again; he did not forgive. And now, at Christmas time, came this letter, which he had not opened. He rose suddenly, and went to a writing table in the corner of the room.

"No doubt he stood over her when she wrote it," he muttered, steeling himself against repentance. "Comes to the end of his resources, and then— I'll not open it. I'll send it back unopened." He scrawled the address, remembered from former letters, and went back to his chair before the fire.

Munday took up the review again. The article went on to describe the great comets, and conjunctions of heavenly bodies, which from time to time have threatened the earth's continued existence. It discussed Chinese superstitions, and the theories of the astronomers whose instruments, gazed on for centuries by countless almond eyes, now amuse gaping German crowds at Potsdam. He was reading about the panic in Europe when the first thousand years of the Christian era had expired, and caught himself yawning. The article was picturesquely written, entertaining enough, but, why, Darby had forgotten to bring the whisky! Munday rang the bell, and then settled down to the perusal of the last few pages. But the end of the article was a little heavy, even for him. He yawned again. His dinner and the fire had made him drowsy. Why didn't Darby—or Thomas—bring the whisky? He rang the bell savagely, keeping his finger on it until the electric whirr might have roused the seven sleepers. He rang again and again. At last he went to the baize door, and shouted down the steps.

"Thomas! Darby! Can't you hear the bell?"

The gruff, angry voice received no answer. With a muttered oath, he went slowly down the stairs, and pushed open the door of the servants' parlor. There was no one there. He went through the kitchens, through the stone-flagged sculleries. "Light flaring away, of course," he growled, and, mounting the stairs again, explored dining-room, drawing-rooms, housekeeper's room, bedrooms, even the little, ill-ventilated, poorly furnished attics where the maids slept.

This was getting uncanny. They'd struck, it was evident; trooped off in a body on the very eve of Christmas. But he'd find them, oh, he'd make them smart for leaving without notice. "I'll go to the police station at once," he growled, and dashed out of the house. The square seemed deserted. It struck him as annoying, not strange. In the heat of his rage and excitement, he had rushed out in slippers and dinner jacket, merely clapping a hat on his head. His ankles were chilly, and he began to wish that he had brought a coat. "I'll get my boots and overcoat," he thought. He was going to ring the doorbell, when he remembered there was no one to answer it. He looked at the heavy black door closed against him. "Well, I can't wait," he muttered. "I'll get a cab in Howard Street."

Shivering a little with the cold Munday hurried into the broad street just beyond the square. There was a cab stand around the corner. It was rather dark, and he had left his glasses on the cover of the review.

"Drive me to the nearest—" He began pompously, approaching one of the hansoms, then broke off abruptly. He looked around. The driver was not on the box—not in the cab—not even within sight or hailing distance. What was still more singular was the fact that there was not a driver on the stand. "Is the world gone mad?" he thought. "They must be drinking—"

A tremendous clatter of hoofs and crunching of wheels startled him. Two horses dragging a heavy 'bus behind them were charging down the street; the vehicle swayed dangerously from side to side. He skipped out of the way with surprising agility in a man so dignified and portly. "I'll have you up for being drunk in charge of a public conveyance. I've taken your number. I—"

His heart gave a jump, and stood still. He had heard of the phantom coach and its headless occupants—the vision that presages death. But here coachman and passengers lacked not only heads, but bodies. The 'bus was empty, and the horses, possessed with terror, were thundering through London at their own unchecked will. Munday peered around him. Where were the pedestrians who should have thronged the pavements on Christmas eve? He walked on a few yards, bewildered. Was he mad—or drunk—or dreaming? The cold in his ankles, the wind creeping up the legs of his trousers, told him that he was still acutely conscious of physical sensations. He reasoned with himself. His servants had run away. The cab drivers had adjourned together for a friendly drink. The 'bus must have been standing in a yard, and the horses have suddenly been startled. Each strange occurrence was capable of explanation, singly. Together, they were certainly remarkable—almost unaccountable. But a little farther on the road was better lighted and there were shops, which at this season of the year would be crowded with people. The frosty pavement glittered in a belt of white and yellow light streaming from the windows.

Extraordinary! Here was a green-grocer's, with great bunches of holly and mistletoe hanging before the door, but no sellers, no purchasers. A little farther on a jeweler's, the electric light shut up within tinted and frosted glass sparkled on rings and jewels and gleaming silver and gold watches; the clocks and watches ticked on, the cases of rings revolved, the placards drew attention to the "Presents Suitable for Christmas;" yet all this wealth was unguarded and apparently undesired. Acting on a sudden impulse Munday entered a toy-shop. In the windows, mechanical toys were working, a sawyer sawing at a plank of wood, a fiddler scraping his tiny fiddle, a tin chauffeur driving his little car round and round a ring of steel. In the shop red-cheeked dolls of all shapes and sizes stared at him impudently through blue and brown eyes. Geese and donkeys wagged their heads at him. He tapped impatiently on the counter. Minutes passed; no one came. Munday went into a little parlor behind the shop. Bread and cheese were on the table, dirty plates, a bottle of stout, and glasses flecked with foam. But no people. He went upstairs, pushed open door after door. Bedrooms, storerooms crowded with cardboard boxes marked with mystic symbols, were all deserted. He reached the shop again. One of the mechanical toys was just running down.

Was all London empty? A hundred yards from the row of shops the door of a mansion stood wide open. He knew the owner slightly, and went in. No one there—no one. Fires still burned in the grates, the electric light had not been switched off in the lower rooms. Upstairs the bedrooms were pitch dark. He was opening the door of one when a voice, hoarse and angry, sent his heart suddenly into his mouth by its startling abruptness.

"You silly juggins! He's kissing me—oh, oh, oh— Murder! Help!!"

"I beg your pardon," said Munday, nervously. "I want to know—"

It was perhaps not a discreet thing to do, but he fumbled in his pockets for a match. There was dead silence. "Where's your master? I want to know the explanation—"

A sound of rapid kissing was the only answer. Munday struck the match testily; it went out. He fumbled in the dark against the wall trying to find the switch for the electric light. Something fell with a terrific clatter. There was an angry, frightened scream — shrill, ear-splitting, inhuman. It was answered by a feebler yell from Munday, as his unprotected shin was nipped suddenly, and then his calf. With fumbling fingers, he struck a match. An open cage lay on the floor; its late occupant, a white cocatoo, circled round him screaming, its crest raised, its clipped, molting wings extended, its plumage ruffled with rage and fear. Munday, dancing round and round and up and down in agony, edged at last to the door, and slammed it in his adversary's very beak.

For an elderly man unused to exercise this experience, coming so soon after a heavy meal, was distressing. He leaned for a few minutes against the wall in the dark passage to recover breath. Behind the closed door the bird was still screeching and flapping in alarm. Munday descended the stairs at last, and sat down in the deserted dining-room to think over his position. It was a strange situation, sitting thus in a house whose owner he knew so slightly, with un-

See page three for special full page picture illustrating this story.

familiar furniture surrounding him, unfamiliar portraits eyeing him, and no human footsteps, no human voices within hearing. He was an obstinate and self-reliant man, and had no lack of courage.

"I'll get to the bottom of this," he muttered, savagely. "Is all London deserted? Is the country deserted? Is the world empty? I'll see." He borrowed a pair of side-spring boots and a fur coat that was hanging in the hall, and went out to investigate matters. Absorbed in the excitement of his quest he walked for miles without feeling fatigue. Shops, houses, broad thoroughfares, narrow alleys, that usually teemed with life, were all deserted. London was like the empty Syrian camp which the lepers found at twilight. Silver and gold and raiment and the horses were left, but "there was no man there."

Munday came at last to a great London railway terminus. Platforms, waiting rooms, booking offices were all lit up—and all empty. A florin still lay on the worn groove before a pigeon-hole at one ticket office. He went on to a platform. An engin was drawn up beside it, steam was up, it needed only the touch of a human hand to set the great wheels in motion. Munday clambered into the driver's place. "Any fool can drive one of these things," he thought, "it's only a case of getting the hang of the taps and levers." He touched one tentatively, with no effect. "I can turn it off at once if the thing starts." His next effort produced an ear-splitting scream. Perhaps in his awkward attempt to shut off the whistle the fur coat caught in some lever; suddenly the engine shot forward, nearly pitching him headlong on the line. Empty streets, empty houses rushed by; town gave place to straggling suburbs; then came flying fields, woods, rivers, villages, provincial towns, all empty of human life. It was like a nightmare. For a time the speed, the din of the wheels, the clang of bridges, the hollow echoing of tunnels fascinated him; he stood like one hypnotized, in the darkness and biting wind. "I'm all right if the thing doesn't blow up, and if there's nothing in the way," he muttered. Green and red lights of signals were alike disregarded. Then, to his horror, he saw two glaring eyes approaching through the night.

He tried lever after lever in vain. The train drew nearer—it was on the same line of metals and already he could hear the whirr and clatter of its wheels. It was like a thing of life, panting and straining for his own; brute force, more terrible because brainless. With a convulsive jerk he wrenched around one of the levers, and knew at once that his engine felt the touch of its master's hand. It seemed to leap back instinctively—ah, it was stopping! And then he realized suddenly that the engine was reversed. It would be a race now between the two. And at the end of the race? He trembled to think of what must happen when the terminus was again reached. He could not stop; the speed was too terrific to enable him to spring off. Provincial towns, villages, rivers, woods and flying fields. The ribbon that speed had unwound wound itself again as on a spool. Gradually he found that the train was gaining in this mad race. The speed of his engine was slackening; the fires were giving out. He tried to shovel coal into the furnace, but it was too late. The lights of the pursuer were within twenty yards—ten yards—five! Munday gave a flying leap into the bank.

A second later pandemonium broke loose. He rubbed his eyes and saw the engines overturned, their wheels spinning, funnels and valves spitting fire and black smoke and hissing steam; carriages were telescoped, splintered, in flames. He felt himself all over. He was bruised, shaken, grimed with coal and dust and perspiration, but not seriously hurt. Mopping the cold sweat from his forehead, he made his way back towards the terminus. Some green and red lights, as he neared it, flickered and waned and went out. He was now thoroughly exhausted. "I'll get back home," he thought. When, with some difficulty, he found his way to his house and forced the catch of a window in the area day was already breaking.

In the cold, early light the deserted rooms looked strange and unhomely. Munday began to think of breakfast. He would have to help himself, since the inhabitants of the earth had been so mysteriously spirited away. He was the Crusoe of a world washed by seas of space. He had always plumed himself on being independent of circumstances and his fellow men. Now he could put his self-reliance to the test.

He attempted to make a fire, but this first effort almost baffled him. How on earth did the maids manage to make it light? He tried to prepare coffee over the feeble, smoking flames which at last rewarded his exertions. There was no milk. The nauseous, gritty, lukewarm decoction was poured away almost untasted. There were no hot rolls, no new loaves. Of course there had been no baking. He hacked a little cold meat from a joint, and rose from the table still unsatisfied. Food would certainly be a difficulty. He had not realized the number of people who contributed to these daily meals. The farm hand milking the cows, the railways, the London dairies, he had not given these a thought. How many hands did the corn pass through before it made its appearance at his table? He saw laborers at work in the great Canadian fields; he saw Russian peasants driving their little bullock carts from the fertile inland water-sheds to the Odessa grain ships; he saw sailors, dockers, warehousemen, millers, bakers, all links in the chain that stretched from his table to the glittering miles of wheat. To satisfy his wants, men fished the seas and rivers of the world; went down into the bowels of the earth for coal and iron and gold; hunted in far forests, trampled the must from the grapes in sunny vineyards, slaved in plantations under burning skies. The world had run down like a clock. It was astonishing how soon the machinery could stop. In a few days all that was perishable would be exhausted. Could he kill and separate and cook a bullock? Would he be able to catch a cow and milk her? Should he, unaided, be able to bake bread?

Munday passed an uncomfortable, uneasy day, trying to assure himself that he was quite independent of his fellows. Secretly he knew that the loss of faces in the streets

"In forty minutes he was in a little, barely furnished room in a London suburb. In forty-one minutes his arm was around his daughter"

He had been taken at his word; he had been taught by this contemptuous silence of God that no man liveth to himself. Each act of his, each act and word of others cast ripples for all time on the sea of human life. He had been too wrapt up in himself to hear the signal when it came. He, he only of all those millions had no spark of soul to claim mercy or remembrance. He had lost his soul, and God tossed him the world in contempt.

If there was only some one left! Some human face to look on—some human voice to hear again. He thought of that little timid gentle wife he had nagged into silence; the daughter who had defied him for the sake of love—oh, if they could come back!

But at a noise in the square, breaking the tense silence which the inhumanly familiar ticking of the clock only emphasized, he started nervously. It was the howling of a pack of dogs, hungry, half wild already. For a second his heart beat fast. The greater part of the room was in darkness; near him the flickering candles cast grim shadows on the walls. His ears involuntarily began to listen for other sounds in the room, on the stairs, in the world outside. Hour after hour passed; his nerves gradually grew tense and strained. If he *should* hear a footstep—a voice! Perhaps there was something, some one human—or half human—left with him to inhabit this ball whirling through lonely space. Perhaps at this moment it was searching—unclean, oppressed him. It was appalling to think that human endeavor and attainment had come to a fixed end; nothing new would be discovered unless he discovered it; nothing fresh could happen unless it happened, probably in an unpleasant way to himself. He walked to the city and handled sums of gold in the deserted offices and banks that would have thrilled him with fierce pleasure only a day before; he handled them now without satisfaction. It was astonishing how his interest in the world had vanished. He missed the respectful greetings of his clerks; the chat and bustle of exchange and city court; the burley, prosperous men who lunched at his table; even the waiter and the cook whom he had so frequently abused. He came back again, depressed, and tried to read. But there was nothing of living interest. Tears and love, laughter and passion had left the world.

The afternoon light faded, night drew on. He switched on the electric light, and found no power left. Gas still burned in the streets—was burning, day and night, but that, too, would soon become exhausted. Munday collected candles, and sat in their circle of dim light. He did not read, he sat thinking, wearily. What had happened? In what surprising way had the world's end come—so softly, so quietly, like the coming of twilight? The terror of the lonely world, its desolate seas, its fetid mangrove swamps and choked forests, its mountains and prairies and deserted beaches—worse than all these, of the cities once so populous now given over to desolation—became oppressive. Why had he been left? He thought for the first time of his past life. He remembered the struggle for wealth that had occupied all his years since boyhood. He remembered men he had passed in the struggle, men he had broken, men, and women and little children linked to them, whom he had crushed and trampled down, drowning their cries with that false and blatant boast, "Look at me! *I* want help from no one! *I* can help myself!"

repulsive—to find him out and force its unhallowed company upon him.

"I'm going mad," he whispered hoarsely. "This'll drive me mad unless I stop thinking." The whisky was downstairs; he stood up, trembling in every limb, and taking a candle moved slowly towards the door. A sudden noise outside sent him flying back, too terrified even to scream.

There was someone in the house!

He cowered with twitching limbs in his great chair, his starting eyes fixed themselves on the closed door. There was some one—there *was* some one! The street door opened and closed. Footsteps came slowly across the tiled hall. Munday caught his breath. The handle turned softly, slowly the door opened—

"Master Rendall!" announced Darby, standing aside to admit the visitor. "Says you expected him, sir, but—"

He broke off in lame surprise. His master had half risen from the chair, with terror stamped on his face, his hands thrust out as if to ward off something sinister and appalling.

"Who is it?" he whispered, hoarsely. "Oh—" Gradually the strained look left his eyes. He glanced around, still bewildered, yet with intense relief. Had he been dreaming? On the floor lay the metal tray, the review, a broken cup and saucer, dislodged from the little table by some abrupt movement made in sleep.

"Mother said you 'spected me to spend Christmas."

Munday looked, still in bewilderment, at his visitor. He had been expecting some one, something strange, terrible, banned of God and man, and his eyes met the face of a little child.

"I expected you? I?"

"Mother said she writed you a letter—"

Of course! In a flash he remembered, and went to the table where the envelope lay. He took it, opened it, went back to the chair.

They had come to the end of their resources at last. Fred had not given up hope; he expected after Christmas to find work. But there was nothing in the house, and Ethel could not bear the thought of the child suffering in a city, full at that season, of glad and happy children. They wanted nothing for themselves, but they begged him to give the boy a home until better days come. For old times' sake—

"Come here," said Munday. "Come here. Don't be frightened. What's your name?"

"John Munday Rendall." He advanced a few yards, a little mystified and shy at his reception. He held out a small hand gravely. "How do you do, sir?"

Munday surprised himself by chuckling. A comical little figure the child made in his long, neatly darned overcoat, and red comforter, with his little bundle under one arm, and with his solemn air of quaint politeness. John Munday Rendall! Of course, his own name.

John Munday took the little hand in his great palm and kept it there. "Did you come alone?"

"Mother put me in the omnibus, and then I came all by myself. But it was full inside, and I went on top, and we had a gray horse and a brown horse, and the driver said—"

"Well, I wonder if you're full inside, too?" interrupted Munday, sticking a thick finger into his grandson's waistcoat. "Hungry, eh? Like some—cake, eh, and lemonade? See if you can ring that bell. Mrs. Popple," he said, when Darby had sent the housekeeper to them, "I want you to get this boy—my—my grandson—something to eat at once. And get a bedroom ready, please. Get two bedrooms. I'm going out by and by and shall bring back a lady and gentleman to spend Christmas here."

Munday sat next the child, watching him while he said grace and made short work of the provisions, and (his shyness soon wearing off) chatted about the all-important adventures of his journey. But by and by Jack began to yawn, and they adjourned, Munday, the boy and the fluttered Mrs. Popple to the little bedroom which had been prepared. "Do you fink I might hang up my stocking?" Jack asked, with his head on one side in grave deliberation. "I did last year, but I don't know if Santa Claus could find his way as far as this."

"H'm, there's no harm in seeing," said Munday.

"Good night. Do you want a night light? Afraid of the dark at all, eh?"

"No, I'm not afraid. Father said I wasn't to be. Oh, I'm forgetting. That's in my prayers." He plumped down suddenly in his little flannel nightgown, and after the Lord's prayer added one of home composition, in which he prayed that he might be a brave boy, and might never tell stories, and might never grumble or be mean.

John Munday came downstairs thrilling with sensations long unfamiliar. He put on his boots and coat, and sent Darby to whistle for a cab. The memory of his terrible dream still filled his thoughts. As he drove through the streets he looked at the world, no longer empty, but full of brave faces, sad faces, happy faces, with new and surprising interest. In forty minutes he was in a little, barely furnished room in a London suburb. In forty-one minutes his arm was around his daughter.

Munday's strong will running in new channels bore down all objections. "You'll both come back with me," he insisted. "Both of you. Your husband—Fred—can't get work during Christmas week. We'll see about finding him some afterward. Never mind that. Get your things together. Are those all? Well—well—now for a cab; we shall want a four wheeler."

But there was none to be had and they came back again by a 'bus through the crowded streets.

When they left the 'bus Munday saw the toy-shop which he had entered in his dreams. It was just closing, but leaving his companions outside, he had time to make some purchases for the stocking about which a little boy was dreaming in a solemn house in the solemn square. The geese and donkeys still wagged their heads, but with a joyful hilarity which had in it nothing of contempt. The wax dolls stared at him still with glassy eyes, but not with more surprise than Darby's eyes expressed when he saw the brown horse and the tin trumpet and the box labeled "A Present for a Good Boy" (as if labeling Mr. Munday himself) which his master had insisted on carrying home.

Before the door closed the clock in the new steeple of Faber's church began to strike. They waited on the steps to listen. "One — two — three — four." The solemn booming on the still night reminded him again of that appalling dream. Thank God! it was a dream. Thank God! there were homes in all these houses, and bright faces, cheerful voices, the laughter of children would greet the day's approach. "Ten—eleven—twelve."

Christmas Day had come!

The Strange Adventures of Helen Mortimer

By Maude Roosevelt

Synopsis of Previous Chapters

"An old lady going abroad wishes a young woman to act as traveling companion, must not be over twenty-five, and be able to speak French."

Helen Mortimer, a poor, ambitious, energetic New York girl, answers the above advertisement and gets the position. Mrs. Harold Pancoast, her employer, entrusts her with a small steamer trunk, the contents of which are of great and mysterious value. Helen boards ship, and awaits the promised arrival of Mrs. Pancoast. The latter fails to put in an appearance, and Helen Mortimer sails alone. A telegram delivered by Mrs. Pancoast's attorney just before the ship left, stated she was unavoidably detained, but would follow by next steamer, and gave address of London stopping-place for Helen. Aboard ship Helen makes the acquaintance of Mrs. and Miss Watson, the latter of whom absorbs much of the attention of one Guy Halifax, much to the regret of Miss Mortimer. A fellow, whose name on the passenger list is George R. Barrington, seemingly forces his attentions on Helen in a very suspicious manner, and Worrendale, another character, seems to be in league with Barrington. These two men have very earnestly endeavored to get acquainted with Helen's plans. One evening Helen detected a strange odor of perfume as she entered her stateroom, and later discovered that her traveling bag had been ransacked, and though it contained money, nothing was taken but Mrs. Pancoast's telegram containing the London address. Charles Lawson, a spendthrift and prominent member of New York's smart set, introduces himself to Helen, and though avoided and deliberately snubbed, he convinces her that he is not all bad. As Helen took her place at supper on the last day of the voyage, she recognized a strangely familiar fragrance, like that she had noticed in her stateroom the day the telegram was stolen. The perfume was worn by Madame Patrie, a little Frenchwoman, who sat on her left. Helen now possessed the first positive clue to the theft of the telegram. In conversation with Barrington, Helen quizzes him as to the Frenchwoman. He insisted he knew nothing about the woman, but Helen is doubtful. Barrington declares his love for Helen and gets a severe rebuke. Halifax, by a ruse, gets the trunk that Mrs. Pancoast had entrusted to Helen through the custom house unopened, much to the relief of Helen who did not have the key. Halifax helps her to the train, and then leaves to look after the Watsons. Barrington takes a seat in the same coach, and when Victoria was reached, he helped Helen to a carriage and asked for her trunk check. She was glad to have his assistance in the crowd and hustle of the big city station. Barrington excuses himself, ostensibly only for a few minutes to get her trunk. Helen, suspicious, insisted that he leave his grip and coat in the cab, which he did reluctantly. Helen waited and waited, but Barrington did not return, so in desperation she directed the cab-driver to the address Halifax had given her, and started alone and without the trunk. It was almost midnight when the lodging house was reached. She was refused lodging for the reason that the house was full. Finally, after much excitement, she secured a small room at another house. In the coat that Barrington left with Helen she finds the telegram that had been stolen from her stateroom. Helen cables Mrs. Pancoast that the trunk had been stolen, and she gets instructions to do nothing, as her employer had sailed.

"You can imagine my relief! Only two more days to wait and then all my responsibility will be over!

"But as I contemplate meeting Mrs. Pancoast and having to confess to her face all that has happened, I am appalled with fear. It would have been so much easier had she learned it through my cable, and had come prepared for the worst. I know nothing of the woman's character, as you know, and she might kill me in her rage, or accuse me of stealing the trunk myself! What proof have I that it was taken from me? If I tell her of Barrington and show her these letters I have, she may think it is someone in league with me! She may never have heard of Barrington, and the letters will probably mean no more to her than to me.

"The longer I think, the blacker appears the situation, and every hour I grow more afraid to meet her. I became so morbidly distressed over it yesterday that I made up my mind to take the first boat I could get back to New York, for I really have not the courage to face that woman alone. Of course it may look cowardly, but, after all, I don't see why I should bear the brunt of everything, when it has happened through no fault of mine. Oh girls, how I wish I were with you to-night, in my little skylight room, and you two near me!"

"Friday, September 17th.

"This morning I went down to Cook's office to see about getting my passage to return, the 'Duchess,' who is the only one in the house that does not fight shy of me, put me in the right bus, and told me where to get out. I think she is nice because she is inordinately inquisitive and wants to find out all she can about me, in order to be able to tell the others. But I am very careful not to say anything in answer to her many questions that will give her a clew to the mystery surrounding me, which, of course, only aggravates her curiosity. Ever since that cable came for me I have been treated as a suspect by all the boarders, and even the landlady now subjects me to very distant politeness. If it were not so tragic it would really be laughable!

"I found, on arriving at Cook's, that the only ships sailing before the 'St Paul' is due, are the 'Baltic,' 'Kaiser Wilhelm der Grosse,' and the 'Minneapolis,' of the Transport Line. The first two, of course, are too expensive, as I only have eighty dollars left of the hundred Mrs. Pancoast gave me. But on the Minneapolis, I could get a second-class passage within that amount, and have enough left over to pay what I owe at the boarding house, and a cab to the station, which is all I should need as she sails from London.

"Well, my dears, I chose my room and was preparing to pay for it, when I suddenly realized the money was not mine, and I had no right to use it except as she had directed. Think of it! I was on the verge of stealing, for how should I ever be able to pay it back?

"The man must have thought I was mad, for I suddenly exclaimed, 'No, I can't do it! I forgot!' Imagine how it must have appeared to him! He stared at me open mouthed, and I know I looked ghastly white, for I felt like fainting. I did not give him time to question me, but turned away abruptly and hurried out of the place. I walked like mad down the street, bumping into people, and not knowing in the least where I was going. On coming to the end of the pavement, I went on blindly across a wide sort of square, where innumerable busses and hacks were rushing in all directions, and where there was no sign of a sidewalk except at the other side of this wide area.

"Suddenly I heard some one cry wildly, 'Look out there, miss!' and found myself almost under the feet of two huge bus horses. The next moment a policeman had me by the arm, and was holding up the dense traffic by lifting his stick, while he piloted me to a circular pavement near a very tall column guarded by four gigantic bronze lions. I knew from pictures I had seen that it was the Trafalgar monument, and when the nice strong 'bobby' released me I walked around the monument until I got myself in hand, and realized that, come what may, I should have to face Mrs. Pancoast and bear the consequences of her anger.

"When one becomes resigned to the inevitable, there comes a certain reckless courage that destroys fear, at least it is so with me. I knew the prospect ahead of me was no less terrifying than before, yet I no longer thought of shirking it, and I remembered with regret and some shame that I had left Cook's without asking for my letters.

"As I was still within sight of the office, and now sufficiently collected to make my way without being run over, I went back, and found your dear letter, which was like the balm of Gilead to my lonely soul, and two others. One I recognized at once was from Lawson; the other was typewritten. After I had read yours, and was carried back for a brief time to our little rooms and the studio, and all that which now seems so far away, I opened Lawson's; it was this:

"'I am writing, Miss Mortimer, because the balmy air here and the flowers and music make me think of you, somehow; and because I want you to think of me, even if I must believe you would not do so unless I wrote. Would you? Have you given a passing thought to me since we parted, I wonder? Possibly you are one of those beings whom fate has so indulged by adoration on every side that the interest of one so humble as I can have no value in your sight. Will you be kind and write me a little line to tell me this is not so, or at least that you will not forget your promise to let me see you in London? I shall be much disappointed if you do not, for it is now my sole incentive for visiting England.'

"'Yours faithfully,

"'Charles W. Lawson.'

"A little while ago this note would have caused me thrills of excitement and interest; but, I tell you truthfully girls, it didn't affect me in the least to-day. Everything looks too tragic and dark. I don't ever expect to see him again, for heaven only knows where I shall be, or in what conditions to-morrow. The very best I can hope for, which, under the circumstances, will be bad enough, is that Mrs. Pancoast will pay my passage back, but even if it means poverty and worry of another sort, I shall have you two to comfort me, and I do need you so much just at present.

"But I must tell you what was in the typewritten letter, only don't be frightened by it, for I am not in the least. I know it is only bluff. At any rate I don't mean to obey it until I see Mrs. Pancoast, and she will be here sometime to-morrow. It was written on legal-looking paper, bearing a printed heading, 'H. B. Bancroft, Barrister,' and this is what it contained:

"'Miss Helen W. Mortimer,

"'Dear Madame:

"'I am instructed by G. Barrington, Esq. to request that you relinquish at once, and in tact, his property consisting of a traveling bag, and an overcoat, and all the papers, letters or other articles contained in same, which you, either by accident or intention, carried away with you from Victoria Station, on the evening of the fourteenth instant. You are requested to leave the articles at Cook's office, in charge of the mail department. If these demands are not complied with not later than twenty-four hours after receipt of this letter, a writ will be served upon you for wilful larceny, and you will be subjected to the full penalty of the law.

"'Very truly yours,

"'H. B. Bancroft.'

"There was no address given, which fact prevented me taking it seriously, for no lawyer would send such a letter without giving his address, and would certainly not order the things to be delivered at Cook's office! There were also two other points to allay my fears. First it was already two days since the letter was written, for it was dated the fifteenth, and secondly, as they did not know where to find me, it would be impossible to serve a writ on me, whatever that may mean!

"The only thing that worries me is that, while I was at Cook's, I noticed a red-headed boy standing near the counter when I asked for my letters, and all the time I was reading them he remained in the room looking over some newspapers. There was, of course, nothing extraordinary in that, but when I got on the bus to come home, he ran after it and went up on top! I thought this might also only be a coincidence until I descended at Oakley street and saw him walk leisurely by while I waited for the door to be opened. There may be nothing serious in it, as he was not more than sixteen, and he did not even glance in my direction as he passed; but it does seem curious he should have come up to the very house, doesn't it?

"Well, I must stop now, for the first bell for dinner has sounded. I shall write soon again, and tell you all about my meeting with Mrs. Pancoast. Don't be worried, it may come out all right.

"With much love to you both,

"Affectionately, Helen."

"I felt an inward qualm of fear as we left the house together"

Three weeks passed without bringing another line from Helen, and her two friends, possessed with anxiety, finally cabled her three words in care of Cook's office, London.

"Anxious, Cable Cook's."

They then waited several days, hoping for a reply that would at least show she was still alive, and that the dreadful things their overwrought imaginations pictured had not occurred.

As it did not come the strain became too great, and they were on the point of notifying the police to look into the matter, when a cable arrived saying, "Well. Have written," followed some days later by two fat letters addressed in Helen's familiar writing, which arrived together.

Trembling with eagerness, they broke them open simultaneously, noted the dates at the beginning of each, and read them in correct rotation. The first was as follows:

"17 Kensington Gardens, London,

"Dearest Girls:

"At last I am able to find a quiet hour to write to you, but it will take many hours, I fear, to relate all that has transpired since my last letter. Why my hair has not turned white I don't understand, for certainly I have undergone enough in these two weeks to turn it white as snow. But I shall tell you everything just as it happened, and I want you to keep all my letters, as some day I may make a story of them, for certainly nothing in fiction could be more extraordinary than what I have gone through. First, do you remember the red-headed boy I told you I thought was following me that day from Cook's? Well, my suspicions were not so foolish, as you will see by what followed.

"After sealing the letter I finished to you that evening, I dressed and went down to dinner, locking my door carefully behind me, as I have always done since that affair on the ship. I took my hat and coat down with me to the lower hall, as I wished to post the letter myself that evening, so it would get the ship sailing the next day. There were two new boarders at dinner; an old lady, evidently some relation to the 'Duchess,' and a young, rather good-looking man, who seeemed out of place in that typical boarding-house gang. He was beautifully

dressed, and evidently a man of the world, wearing a neat imperial and mustache, twisted at the points, which gave him a foreign air, although his speech was thoroughly English. He sat almost opposite to me, and talked very knowingly of the Russian War to the Major, whom I introduced to you in his pajamas, you will remember, in my last letter. Everyone listened when he spoke, and really his conversation was very interesting, even to ignorant me, and I found myself following it so attentively I forgot to eat. Presently, when there came a pause in the subject under discussion, he looked over at me, which I had noticed he did several times, and said very courteously, 'Pardon me, Mademoiselle, but have we not met somewhere? Your face is very familiar.' Whereupon I gave new stimulus to the suspicions I had already aroused in the house by blushing furiously, and appearing so rattled that no one could help but think I was in terror of being discovered.

"What I replied, I don't know, some stupid and confused words which he tried to cover by saying: 'It is probably merely a strong resemblance, then, to someone I know. One who travels a great deal is liable to make such mistakes. I trust you will forgive me for venturing so far.'

"'Certainly,' I whispered, feeling like sinking under the table to avoid the cold, critical gaze of eight pairs of eyes fixed pitilessly upon me.

"'You are an American are you not?' pursued the man, whose name I afterward learned was Black, and I replied shortly, 'Yes.'

"'May I ask from what part of the States?'

"'New York.'

"'Ah, I know it well! What an attractive city it is! Do you like London as well?'

"'Yes, I find it very interesting.' I was now growing calmer, and felt a thrill of angry defiance toward the old hens who were watching me, and some little vanity that Black had so pointedly turned his attention to me. Not that I cared a bit, really, but they had all hung upon his words so I felt it would pique them if I monopolized him. We conversed for some time exclusively, while the rest of the table remained silently listening, then the "Duchess" interposed by saying:

"'You were asking at breakfast, Miss Mortimer, at what station you should meet the steamer train from Southampton. I inquired—"

"'Oh, thank you,' I interrupted, somewhat rudely, but I do hate them all so! 'I got the information I wanted at Cook's this morning.' Whereupon she drew herself up, and glanced significantly down the line of sneering women opposite.

"'You expect someone from the States?' asked Black, 'May I ask by what steamer? Perhaps I can facilitate your meeting the train.' And I, like a fool, said, 'The St. Paul.'

"'Ah she gets in to-morrow morning. I can discover for you the exact time the boat train arrives in London, if you wish.'

"'Thank you,' I returned, 'I have been told it is due at four twenty.'

"He laughed softly and said, 'My aid is then superfluous, but I should advise you to make sure the St. Paul gets in on schedule time. Frequently they are delayed, you know, and it would be unpleasant to wait indefinitely. We can see by this evening's paper if she has been sighted or not.' Then addressing the landlady, who sat at the head of the table, he asked, 'Is there an evening paper to be had?'

"She directed the butler to bring one, and Black examined it while, dinner now being over, some of the older women retired to the drawing-room, probably to discuss me in awed whispers, for my left ear burned the whole evening.

"On being informed by Black that the St. Paul had been sighted, I thanked him, and arose. He also got up, and, much to the interest of those still at table, we left the dining-room together, he talking amiably the while. As I paused at the hall mirror to put on my hat, he said, 'You are going out?'

"'Only to the corner,' I replied, 'to post a letter.'

"'Oh, will you not entrust it to me? I am very conscientious about letters.'

"'Thank you very much,' I returned, 'I should really like the little walk.'

"He helped me on with my coat, saying, 'You will at least permit me to escort you,' and took his hat from the rack.

"Now, I can't understand why it was, for there was nothing in any way suspicious about him, but I felt an inward qualm of fear as we left the house together. It was probably owing to the nervous condition I was in. At any rate, as the post box was not more than a block away, and it was still early, there was no danger, and we sauntered slowly down the street, he talked agreeably, and I feeling relief in getting away from those wretches in the house.

"When I had dropped my letter into the box, and started to return, Black said impulsively, 'I say, would you care to go to the theater to-night? I have two seats for "The Walls of Jerico," a rattling good show, and I'd be honored if you would accompany me.'

"Of course, I declined, and so stiffly, he launched forth in an eloquent argument upon the perfect propriety of my going with him. 'I shall bring you back by eleven; surely there could be no objection to your going. I thought American girls were more independent of criticism.'

"'No American girl, who respects herself, would go to the theater at night with a man she scarcely knows,' I returned.

"He laughed impatiently, 'Oh, what rubbish! If you had met me a month ago you would know no more what sort of man I am than you do now. Do come, it will be dreadfully dull in that house this evening. Why should you coop yourself up there with a lot of old women, when you can see the best play now on the boards? You will enjoy it immensely. Do have some courage, and throw conventionality to the winds. I am a gentleman, you need not be afraid I shall misunderstand, or not appreciate to the full your confidence in me.'

"But I was obdurate, and although he detained me at the steps a long time while he pleaded, I had not the slightest intention of yielding; for the more he talked, the more suspicious I became of his anxiety to make me go with him. Experience has taught me not to ignore the slightest inkling of distrust I may feel in regard to anyone, and when we entered the house, I pretended I was very tired and said good-night to him.

"'So early!' he exclaimed. 'Why it is not nine yet. Stay down a little; I shall give up the theater if you do.'

"I replied, 'I can't, I'm sorry. I hate to sit in that drawing-room with all those women.'

"'We can sit in the dining-room. There is no one there, and I shall show you a book on palmistry I have—Kiero's. It is most interesting, and gives the hands of several famous persons.' But I declined the pleasure, and went up followed by his reproaches.

"For some reason I was sorry to leave him, for I hated to be alone, and the prospect of seeing Mrs. Pancoast the next day preyed upon me so I felt I should go mad. The only thing that gave me a little comfort was the possession of those letters of Barrington's, through which I hoped she might be able to trace her trunk; and, to guard against forgetting them on the morrow, I had placed them carefully in the inside pocket of my little belt bag, and hid it on top of the wardrobe under Barrington's coat. I did this because, in spite of my contempt for the typewritten letter I had received, ordering me to give them up, I lived in constant expectation of something developing from it, and I made up my mind I should not give up the letters without a fight, as they were the only clue I had to offer Mrs. Pancoast.

"Therefore I decided that should my address be discovered in any way, and someone come to demand them, I should hand over the bag and trunk, and say I had left the coat in the cab. You see my education is improving under this schooling! Probably before I am done I shall not have an atom of truth or honesty left in me. Yet what can I do? If I meet dishonest people with honesty I shall be absolutely in their power, and, as fate has forced me into this sort of life in a way that makes it impossible for me to extricate myself, I am obliged to adopt suitable tactics.

"This you may be sure of, my dears, that as soon as I have seen Mrs. Pancoast, and confessed everything to her, I shall try, even if I must do it through threats of betraying her, to persuade her to send me back to New York. This really is the least she can do, for I entered her service in good faith, believing her to be an honest woman, as she pretended to be, and she took a mean advantage of me.

"Of course, I did not feel the least bit like sleeping that night, and every time the door bell rang my blood ran cold with fear lest it was some one coming from Barrington's lawyer. Think of how all those women would have complimented themselves upon their clever deductions concerning my character if I were arrested as a thief, under their very noses!

"I can tell you no thief ever felt more guilty or more in terror of being traced than I did! Every sound made me start, and by ten o'clock the most awful fit of depression and foreboding settled upon me that I have ever suffered in my life, not excepting those dark days in New York.

"That morning I had bought a magazine full of exciting stories, in which I tried to lose myself, but they all seemed so tame in comparison with my own condition I could not keep my attention on them. At twelve o'clock I turned out the light and went to bed, but alas, not to sleep! My eyes would not shut, and remained wide open, staring into the dark, while I pictured for the hundredth time my meeting with Mrs. Pancoast, and rehearsed what I should say to her, and what do if she became violent. Even in fancying what was likely to occur, I could hear my heart beating like a sledge hammer, and my hands got as cold as ice.

"So absorbed was I in following my thoughts that I heard without heeding a slight noise, like the careful turning of my door handle. It was repeated twice before I stopped to listen. Then I heard the latch click loudly, and sat up, frozen with terror.

"'Who is there?' I cried, and a sound responded as though a hand, of someone startled, jerked the knob.

"As mine was the only occupied room on that floor, I knew I might easily be smothered or strangled without anyone below being awakened, for the room was in a sort of back annex, cut off from the main house by a narrow hallway and flight of steps. I had, of course, locked my entrance door, and had tried the one leading into the next room, which I believed to be unoccupied, and finding it locked and the key not there, had not troubled about it. However, it was from this door the sounds came; and I sat still, holding my breath and listening, but my heart beat so high I felt deafened, imagining there were a lot of sounds I couldn't hear. I did not dare to scream, for fear it might only have been my fancy, and it would be so dreadful to wake all the house again for nothing.

"My one thought was to get hold of my large scissors or something with which to protect myself in case I were attacked, but I hadn't the courage to get up and cross the room in the dark. Then I remembered that Barrington's bag was on a chair by my bed, and, trembling in every nerve, I cautiously reached over for it, intending to get a razor.

"The click of the bag as I opened it seemed tremendously loud, and so added to my terror that I fingered in reckless haste among the things it contained, and touched the little revolver. I was almost as afraid of that as I was of the peril I believed to be threatening, but the razors were in a case, and this was ready for use. As I drew it out, I heard something brush against the communicating door, the handle clicked again, and then there came a rush of cold air.

"I felt a presence in the room, and sat as though petrified, the pistol weighing so heavily in my hand, I almost dropped it.

"The person tiptoed a few feet, then bumped noisily against a chair.

"'If you make a sound, I'll kill you!' said a familiar voice, though I did not attempt then to think whose it was. 'I want those papers of Barrington's, and if you value your life, you'll give them without a word. Where are they?'

"Then, to my amazement, he struck a match! Just as he did so, I raised the revolver and shot toward the window. The report and crash of glass startled him so the match went out, and I heard him feeling wildly toward the door.

"Meanwhile in my nervous terror I kept on pressing the trigger involuntarily, and every time I pressed it the thing went off, until the whole house echoed as with a resounding cannonade. When it wouldn't go any more, I heard people shrieking downstairs, and a rushing to and fro of feet.

"Then someone knocked at my door, and I heard the voice of the fat man who sits next to the landlady say, 'What is the matter in there? What is this row?'

"'Come around by the other door!' I called as loudly as I could, for I was so weak I could scarcely articulate. 'Through the other door!'

"I heard him start to cross the hall, then other feet hurrying, a wild cry, followed by sounds of a struggle, and a heavy bump as of someone thrown forcibly to the floor; then the sound of a man rushing frantically down the stairs, and piercing shrieks of women.

"'Catch him! call the police!' shouted the fat man, who I could hear struggling to his feet in the hall; almost at the same moment the front door banged, and some women cried, 'He's got out! He's escaped!' Then more rushing about downstairs, and confused voices.

"I got up so faint my limbs trembled under me, and felt around in the dark for my wrapper, not having enough presence of mind to light the gas. The voices of the people outside came to me distinctly, the fat man saying, 'Why didn't someone call the police!'

"And the Major, 'No, rubbish! What's to be gained by making a scandal? If the girl isn't hurt, let the matter drop, it will do no good to get it into the papers!'

"'How do you know the girl isn't hurt?'

"'Didn't she direct you what to do?"

"'Go up and see, someone.'

"Meanwhile I was feeling for the door, and as my hand touched the knob, I unlocked and opened it upon a group of half-dressed, white-faced creatures who were really funny to behold, now as I look back on them. The women were in weird wrappers and curl papers; the men with trousers drawn up over their nightshirts. The fat man and the 'Duchess' were foremost, the latter holding a lighted candle.

"'What happened?' she asked, between quick noisy breaths, 'Who shot the pistol?'

"'I did,' I replied in a trembling voice.

"'You! Why!—Good gracious!'

"'Was that man in your room?' asked the fat man, and I said, 'Yes, he came through from the next room.'

"'What did he want? The devil! He shouldn't have been allowed to escape!'

"'How did he ever get in the house?' said someone down stairs.

"'He was in the house,' I said. 'It was that man, that Mr. Black.'

"There was a chorus of astonished exclamations all along the hall, and down the stairs.

"'I thought it was he,' said the fat man, rubbing his head. 'But I couldn't see well in this blasted hall! I had my hands on him, but he was too quick; he gave me a blow that knocked me off my pins before I could wink! Gad! I'd like to have held him.'

"'Dear me! dear me!' muttered the Duchess. 'How shocking! Let us light the gas and see what's been done.'

"'If she hadn't carried on with him as she did this evening, he'd never have gone to her room,' said a cracked voice on the stairs. 'It's scandalous! In a respectable house!'

"I felt my head swimming, and as the light was lit everything in the room appeared to dance about me; then the floor seemed to sink, and I caught hold of the door to steady myself.

"'The girl's fainting,' said someone, and I felt an arm about me, then knew nothing more until I came to, and found myself lying on the bed with the 'Duchess' attending me. Several of the others were prowling about the room examining where the bullets had struck, and whispering very ugly insinuations about me.

"Oh, I was so glad when at last they went away and left me. The Duchess was the only one that had a particle of heart or human feeling. She left me some brandy, in case I should feel faint again, and I took it, for my teeth were chattering from nervous chill. All the remainder of that night I sat up in bed, going over the horrors I had passed through, and realizing that my good name was lost with everyone in the house, for I could not explain what Black had come to my room for. I cared nothing for their opinions, but I knew it was sure to get back to Halifax through the landlady's sister, who would of course tell his sister, as I had been introduced through him.

"It made me very sad to think I was to lose his respect through no fault of mine, and yet be unable to explain the situation to him. Even if I could explain it no one in the world would believe such a story, and I would only prove myself not respectable by being mixed up in an affair of this sort. I knew it was all over between him and me, and I was weak enough to cry over it, for I do care for his good opinion, even if we are never to meet again.

"The next morning I felt too wretched and ashamed to go down to the table, so had some coffee brought up to my room, and what do you think! The irony of fate! There on the tray was a letter from Halifax,

(CONTINUED ON PAGE 33)

The Christmas Tree

By Frank H. Sweet

Only a star! a shining star!
More glorious than our planets are,
But watched by wistful eyes and bright,
And longing hearts, that wondrous night.

Only a manger, shadow-thronged,
That to some public inn belonged,
Where sweet-breathed cattle quietly
For midnight slumber bent the knee.

Only the light of tapers small,
That on two tender faces fall,
Two tender faces—one divine—
That still through all the centuries shine.

From palace walls, from thrones of gold,
From churches, shrines, cathedrals old,
Where the grand masters of their art
Wrought faithfully with hand and heart.

Only a babe! in whose small hand
Is seen no scepter of command,
But at whose name, with freedom's sword,
Move the great armies of the Lord.

Only a cross! but oh, what light
Shines from God's throne on Calvary's height
His birth, His life, the angels see
Written on every Christmas Tree.

How the Farmer Lives in the Great Southwest

By Edmund G. Kinyon

A RANCH HOME IN ARIZONA—TWO THOUSAND HEAD OF CATTLE IN FOREGROUND

SINCE the days of the first settlements in New England and Virginia pioneering has been the lot of the American farmer in different and succeeding portions of this country. East of the Mississippi River the pioneer husbandman found the soil encumbered with vast forests, which taxed his courage and strength and hardihood to the utmost. Crossing the river, he met the great fertile prairies, stretching to the horizon, without a stick or a stone to obstruct the plow. In both regions, Nature was his ally and supported and encouraged his labor. He broke the virgin soil, and the rains from heaven quickened it into life and produced thereon abundant crops in recompense. He and Nature worked together, hand in hand, the one with the other. Every sign and token indicated that the region was intended for a garden. All of the elements necessary for successful crop production were present—needing only the intelligent labor and direction of the farmer. Such were the conditions which met the pioneer in the rain countries.

But in the Southwest there is a vast stretch of territory—an empire in itself—which Nature did not intend for an agricultural region. The face of the land is rough and gashed and windswept. The average soil is sand and gravel. For months and months at a time not a sprinkle of rain visits this region. The few inches of annual rainfall is flung violently from mountain storm-clouds during the brief rainy season of July and August. Even of the worthless weed and bush, only the most tenacious and dauntless can survive in the natural state of the soil. It was and is a country of wild, rude, unfinished architecture—a wanton, worthless place in Nature's economic scheme.

In this region conditions of unparalleled severity and discouragement faced the pioneers who first sought to utilize the scant resources. It is doubtful whether in any other portion of this country conditions of such extreme pioneer hardship were met with, and whether in any other portion the human sacrifice seemed so little worth while and so little calculated to yield a final and adequate reward. First of all, with the first settlers and with the present settlers, there is no natural rainfall to bring about the growth of crops, it being necessary to supply moisture in some artificial way. Nature is very chary of her assistance, and seems to frown upon man's ambition to turn the desert and the abandoned places into agricultural regions. Man works alone to solve the problem of raising crops in a land where crop raising has no natural place.

Yet in the face of these tremendous odds, the pioneer came and stayed, and gradually the abandoned tracts yielded to his ministrations and assumed—in places—something of the aspect of an agricultural region. When the first settlers came there was not a foot of railway in all the great West-Texas, New Mexico and Arizona region. Entrance was made with ox or mule teams, and in the same way supplies were freighted hundreds of miles over the trackless, waterless deserts. The country was infested with murderous, treacherous Indians and no less dangerous white men outlawed from the states. Surely those who came were of a valiant breed, fitting predecessors of the energetic and self-reliant populace of to-day.

After the lapse of a quarter of a century and more, since the first settlements were made, the country is still upon the frontier, and conditions are still largely pioneer conditions. Central and eastern Texas is, of course, exempt from this statement, it being a country of more maturity and substance. Too, in New Mexico and Arizona some of the more fertile and better watered valleys show the effect of long settlement in better farm buildings and more thorough agricultural methods. In the main, however, less attention is given to the beauty and convenience of surroundings and to the comfort of the farmer and his family than in other regions of no greater agricultural prosperity. This is largely accounted for by the fact that a feeling exists everywhere that the place is one of a temporary abode merely. The assurance of permanency which characterizes the older settled portions of this country is lacking to the extent that even in the case of families who have resided upon their holdings for one or two decades the members speak confidently of the time when they will journey on to the Pacific Coast, or return to their old homes in the Southern or Central States.

SCENES LIKE THIS GREET THE PIONEER

Although the country is well adapted to fruit raising and to the production of all kinds of berries and vegetables, until recently but little attention was given to those lines of agriculture; not enough, in truth, to supply the families of the farmers themselves. It is not uncommon to find big ranches—all farms are ranches and all farmers ranchers—producing large revenue in hay and grain, utterly destitute of garden and berry patch and orchard, the farmer buying the product of those departments, as well as of the dairy and poultry yard, at the town stores. However, it may be stated that this old and rather improvident order of things is gradually giving way to the more thrifty and domestic custom of producing the greater part of the family living from the farm. Still, in the Southwest, the farmer or his wife who takes a bucket of eggs or a few pounds of butter to the store for barter is a rarity.

In the matter of farm buildings, the rancher of the Southwest concerns himself very little, and that little is entirely in the way of a house for his family. The comfortable and commodious stables and barns of the Northern farm are practically unknown, a low shed or the open yard serving for the care of the domestic animals. It should be borne in mind that the mild climate and infrequent storms of the winter season makes this custom less intolerable than it would be in a colder region, and no great physical suffering comes to the stock thus cared for; yet the absence of a clean and orderly barn, in which each of the various appliances have an individual place, must be a serious inconvenience. In keeping with these haphazard methods, the farm horses are given but little attention, the careful and regular grooming accorded to the average work team of the North being entirely lacking. Food is supplied in abundance, and the animals are usually in fair condition for the severe labor to which they are subjected. The prevalent farm harness is of the Southern trace-chain variety, as simple and limited as the summer garb of a small boy. In not a single instance has the writer noticed the leather tugs and back pads and check reins of the Northern farm harness. Buggies and light wagons, the latter having a canvas top and called a stage, are abundant, and the average farmer on the road presents a fairly comfortable and prosperous appearance. As in all southern countries, the saddle horse is the favorite means of travel whenever his use is practicable. The wife and daughters of the farmer are proficient horsewomen, riding astride usually.

The old Mexican residents of the Southwest built their houses invariably of adobes—large rough brick made by mixing a certain quality of clay with straw and drying in the sun—and the Americans have generally followed the custom. The usual plan is a square house of thick walls with a wide hall running through the center. Formerly the roof was of poles and dirt, but the shingled roof has now come into use. This makes a very comfortable house, especially when wide porches are provided, as the thick walls exclude the fierce heat and the hallway provides a means of draft. A well-built house of this description is exactly suited to the climate and makes a delightful residence. The later pioneers, however, are prone to adopt the makeshift of a frame shack constructed of loose boards and canvas—a habitation replete with discomfort for the family. It is true that the winters are mild, yet the northern winds are often searching and chill, and in the summer such a house is a sweat-box, affording but little protection from the blazing sun. The favorite bedroom of the family during the summer is the open yard, and for comfort, save for an occasional stray mosquito, it exceeds any tapestried boudoir that can be imagined.

The social features of the family life are rather less definite and prominent than in other sections. Aside from dancing parties, social gatherings are infrequent. The tendency seems to be to center all of the social and religious

A COUNTRY LANE IN NEW MEXICO

interests in the little towns, and those who are too remote to participate are left without privileges or diversions of any kind. Sunday is not universally observed, either as a day of worship or rest, the field work often being pushed ahead as upon other days. In the mountainous country, in nearly every section, it is but a few hours' travel to places of much natural interest—mountains, or canyons, or prehistoric caves, and the residents find diversion in visiting and exploring those places of interest. The farmer boy who desires to hunt is not troubled by the no trespassing sign. Close at hand there are millions of acres of waste land where various kinds of small game abound, and there he may hunt undisturbed. A little longer trip may yield a wild turkey or a deer, or even a bear is within the range of possibility.

As in other portions of the country, the public school comes with the first settlers and holds a constant place of interest in the farm life. The school buildings are often rude, dreary, little shacks, but there is seldom any lack of pupils. Funds for sustaining the schools are not obtained by levying a tax upon the property of each district, but a uniform levy is made upon the entire property of the county, and the money thus obtained is thrown into a common fund and apportioned to the various districts according to the school attendance. One community of about thirty families, and having very little taxable property—the land being undeeded—maintains two well-attended schools, which indicates a good percentage of children to each family. Teachers are paid wages ranging from sixty to seventy-five dollars a month. This community conducts a little Sunday-school in one of its schoolhouses—a very primitive and even amusing assemblage—those attending being of many nationalities and representing, either present or remote, nearly every sect and creed. In every community are found persons of unusual intelligence and education who have drifted there through stress of fortune in other states.

The special industries which engage the attention of the rural population of this great region are as varied as the country itself. If we count the stock raiser a farmer, then the industry of stock raising may be said to be the predominating and universal industry. Still, except upon the strictly plains country of western Texas and eastern New Mexico, stock raising is the exclusive business of but a small proportion of the rural population, although every farmer is more or less interested in live stock. In that region all other interests are of little moment and the towns contain the most of the population. The great prairies are fenced and used entirely for grazing, the owners living in some near-by town with their families. There the social status of the rancher and his family is governed somewhat by the number of sections of land which he owns. A one-section man is not of much repute, while the five-section man

A FARMER'S SHACK AND ARTESIAN WELL

is hardly considered the social equal of the twenty-section man. Crop raising is confined to small patches, and very little real labor is performed by anyone except the housewives. To the eastward are the great cotton and corn belts of Texas, with their negro laborers and Southern characteristics. Texas—an empire in extent and once an actual republic—is said to exceed any other state in the Union in the diversity of its products and in its ability to sustain its population unassisted. If not an article of growth or manufacture was brought from other states its people would suffer no great inconvenience.

The Southwest is, indeed, becoming more and more a great department-store, with counters scattered here and there for the exclusive production and sale of various articles. At Eagle Pass, down on the Rio Grande, in Texas, is the Bermuda onion counter, that vegetable being grown exclusively and in great quantities. Nature seems to have deposited just the right consistencies of soil in that particular spot, and the application of river water insures enormous yields, netting the growers profits exceeding $250 per acre. In other portions of Texas whole communities are given over to strawberry culture, and in still others peanuts, pecans and various

RANCHERS LOITERING IN TOWN

other fruits, vegetables and nuts are grown exclusively. Texas also has its rice counter, where that staple food product is grown upon a considerable scale in artificial swamps.

In New Mexico and Arizona the predominating crops are alfalfa, wheat and barley. Every rancher of large or small operations grows alfalfa for his own use or for sale where markets are available. It grows with remarkable prolificacy upon the irrigated lands, and every domestic thing of the farm, from chickens to horses, utilize it for food and thrive upon it. Alfalfa may be said to be the one plant that has made agriculture possible in the desert region. It is a crop of comparatively little labor, no seeding or cultivation being required after a stand is secured. The baling process, which is universal, has heretofore been tedious work, every pound of the hay being crammed into the machine by the foot of the feeder. By working long hours a crew of four men and a team could bale from ten to twelve tons a day. Now, however, a steam baler is being introduced, whereby the laborious and dangerous foot feeding is dispensed with and thirty tons a day turned out. It is of interest to note that the steam thrasher is only now invading the grain-growing valleys, the old-fashioned horse-powers, with their horse-killing qualities, having been in universal use. The explanation for the late coming of the traction engine is that the many irrigating ditches which cross the roadways and skirt the fields make moving the heavy machines difficult.

New Mexico and Arizona also have their special counters. In the Pecos Valley fine fruit culture is becoming the exclusive occupation of the ranchers. In the Salt River Valley whole communities are given over to the production of cantaloups and car-load shipments are made to all parts of the country. It is there that oranges of such exquisite quality are grown that the wealthy people of New York readily purchase the entire output at a high price. The tendency of the present day throughout the Southwest is to cater to those special demands wherever conditions of transportation and markets make it practicable. With the coarser products there is little or no foreign market, the freight rates being prohibitive. However, nearly every agricultural valley is closely adjacent to mining sections wherein large numbers of consumers reside.

As a class, the farmer of the Southwest knows little of the modern comforts and conveniences which have recently come to his brother of other sections. The rural mail delivery is practically unknown, but the rural resident, never having tested its convenience, cares nothing for it. Farm telephone lines are only beginning to make their appearance. Electric lighting is unknown, but now and then a rancher has equipped his residence with an individual gas plant. The prevailing fuel is wood. The influence of the South is strongly over the region, showing itself in the open fireplaces and spacious kitchens of the better ranch homes. Too, as in the South, the larder is always well supplied and the hospitality of the family seldom lacking.

This article is being written in a long slender valley which winds through the very heart of the arid region—a locality typical of the whole great region between the Pecos River and the Colorado River. Outdoors the fierce sun of June is beating upon the earth and the thermometer is hovering close to the hundred mark. To-day is a twin brother of yesterday, and to-morrow will be identical. Hardly a drop of rain has fallen for months; not a drop is likely to fall for weeks to come. The dust of the traveled roads is like a fog.

Beneath the brazen sky, clad in the most meager of raiment the farmers are toiling with patience and cheerfulness. The summer is just begun, but the first harvest of hay and grain is over. Within a month corn planting will be on, and a little later seed potatoes for the fall crop will be put into the ground. About the first of September the fall gardens will be planted and sowing the seed for the grain crops will be completed in time for the Christmas holiday. This is a land of double crops and queer schedules.

Far in the haze are the mountains; snow-capped, cool, alluring—constant promise of surcease from the heat and toil of the field.

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New Orleans' First Citizen

NEW ORLEANS is to-day a place of approximately 400,000 inhabitants, a great prosperous city, teeming with commercial and business activities. Yet if you ask a man from New Orleans who is at the present time the city's foremost citizen, in nine cases out of ten, he will give you a woman's name in reply, that of Miss Sophie Wright. This fact, surprising in itself, is rendered all the more remarkable when it is known that this citizen is not at all rich, not one of the city's largest landholders, but a frail little woman, a confirmed invalid, who can get about only with the aid of crutches and a steel harness.

But poor and crippled as she is, the services that Miss Wright has rendered New Orleans are not to be paralleled by those of any other man or woman of this generation. The story of her life reads like a romance, with this important improvement, that it is all true. She was born in the years of desolation and hopelessness that followed the close of the Civil War. Her parents had lost everything in the financial crash following the war, and, worst of all, when the little girl was three years old, she fell, injuring her back and hips so badly that for six years she could move only from her bed to her chair and back again. When she was nine years old, she managed to hobble to school on crutches, absorbed all the education that the schools of New Orleans could then offer, and at fourteen years of age, opened a school of her own, a "Day School for Girls," as the sign read which she hung out from a window of an unused room in her mother's house. She prophesied to her incredulous parents that before the year was over, she would be supporting herself, and contributing to the family expenses. And the strange thing about it is that the prophecy came true. At the end of the year this little schoolmistress of fourteen pupils was earning from her school the to her fabulous sum of ten dollars a month.

One day when Miss Wright was about twenty years old. a young man knocked at the door of her school, which had by this time grown into the "Girls' Home Institute," and was installed in a home of its own. He was a young circus athlete, stranded in New Orleans, penniless. While wandering about the city looking for work he had seen the notice of a civil service examination to be held very soon. If he could only learn a little arithmetic and geography he might hope for a permanent position. The city schools were not open to him, so in desperation he appealed to the kind-hearted little schoolma'am for any help she could give him. She heard him patiently, kindly and sympathetically, and of course she said that she would help him all that she could, although it meant giving up her evenings to him.

This young circus athlete was the first pupil in Miss Wright's now famous "Night Schools." To-day there are fifteen hundred men and women and boys and girls attending these night schools, and all of them are dependent on the efforts of this frail woman for their education. At first the wealthy people of New Orleans manifested little interest in the work of Sophie Wright. What at last brought her to their attention and awakened a deep sense of gratitude was the noble work she did during the yellow fever epidemic of 1897. During all those fearful summer days Sophie Wright stood at her post of self-imposed duty. She never left the city for a single day. Of course she had to close her schools, and she turned her schoolrooms into depots of supplies. Some of her teachers manifested her own high and fine spirit of self-sacrifice and remained with her. They collected food, clothing, medicine, and stood day and night by the suffering victims of the disease.

When the yellow fever scourge finally died out Sophie Wright found her schools ruined, overwhelmed by debt and mortgage, the labor of years gone in a few months, but she was undaunted, undismayed. She was now known as a public benefactor throughout all New Orleans. The papers were loud in their praises of her work, and people knew her name who had never known it before. Some of the men of wealth in New Orleans came to her rescue. They discharged mortgages for her and loaned her money at a low rate of interest and without interest at all for the upbuilding of her work. Every year the "Picayune," one of the leading newspapers of New Orleans, presents a silver loving cup to the man or woman in the city who has rendered the greatest service to the city. In 1905 this cup was given to Sophie Wright. The thousands of men and women in the city whom she had helped combined to make the occasion a memorable one. In less than one week they raised a fund of $10,000 as a

SOPHIE WRIGHT

gift to go with the cup. It was at first arranged that the presentation services should be held in a large public hall, but it soon became evident that this hall would be entirely inadequate, and Audubon Park, one of the largest playgrounds in the city, was selected as the place for the presentation services. Thousands of people of all classes assembled here to pay their heartfelt tribute of love and respect to little Sophie Wright, the best-loved woman in all the city of New Orleans.

The Young People

The Fun Don Missed

"Come on, Don," urged the boys. "You know we can only coast till school is out, for the big boys will drive us away."

"But we'll have to take Rena home," said Don, pointing to a tiny girl dragging a sled after her. "I know Mrs. Moss doesn't know where she is, and she'll get lost."

"Well, it isn't our fault if her mamma doesn't watch her," said Roy, moving along. "You needn't look after all the babies in town. If you don't go you'll miss all the fun."

The small boys and girls were dismissed at three o'clock every afternoon, while the older scholars had to stay till four. This gave the little people a chance to coast on the splendid long hill for the mothers were afraid to have the small children coasting when the older ones were there for fear of accidents. Every afternoon when Miss Price tapped her little bell there was a scramble for wraps and a rush for the long smooth slide to see who would be the first one down.

"Take her home if you want to," said Ned, when Don took the cold little hand in his and led the weeping baby toward home. "Her mamma would soon hunt her up if you didn't bother."

"I can take her home and get back in time for some coasts," said Don, who did not like to miss all the fun. "Hurry up, Rena."

But naughty Rena wept and would not hurry at all. At last Don ran back for his sled and took the cold little girl for a quick ride home to her alarmed mother who was ill on the lounge.

"How kind of you, Don, to bring her home," said poor Mrs. Moss. "I put her to sleep and thought she was tucked up on the cot in the bedroom. She must have slipped out while I dozed. Could you run over and ask Mrs. Trent to help me a little? I know it is too bad to cheat you out of your fun, but I am too ill to take care of Rena."

Poor Don could hardly keep back the tears as he trudged through the snow for Mrs. Trent. As he rang the doorbell at her house the big boys and girls went shouting by on their way to the hill, so the tired boy had to give up all thought of getting even one coast. He went home silent and unhappy, though he was glad he had taken Rena home to her sick mother.

"I told you you'd miss all the fun last night," said Ted, when he saw Don next day. "The hill was just fine, and we had lots of rides before the big boys came. I guess they all got kept in for bad lessons or something. I wish they'd be late every night. Did Mrs. Moss give you a dime for bringing Rena home?"

"No, she didn't—but I didn't take her home to get a dime," said Don, while the others laughed. "She was sick and Rena ran away."

But that very evening all the boys and girls found out that it was a very good thing Don had missed the fun. Mr. Moss was at the hill when the big boys and girls came, and he explained that from that very evening the hill was to be used turn about.

"This hill is in my pasture field and it is to be used turn about," said Mr. Moss. "To-night the little boys and girls are to have it, and to-morrow the older ones may coast. Yesterday Don brought home my little girl and kept her from taking cold and getting sick, so I want to do something for him."

Don hid behind the snow fort, but the other boys dragged him out and gave three rousing cheers for him. "I wish we had gone with him yesterday," said Ted. "We let him go home with Rena alone, and now we are to have a share in the good times. It doesn't seem fair."

"It's all right," said Don. "I'm going to beat all the rest down the hill," and away they went to enjoy the sport till supper-time. Hilda Richmond.

◈

Old-Time Games Renewed

Our parents and our grandparents once upon a time had need of indoor amusement during the long winter evenings, just like the little girls and boys of to-day, and most of the following games afforded great pleasure between the ages of seven and ten years:

My Lady's Work-box—Each child is given the name of an article that would naturally be found in a work-box, such as scissors, thimble, needle, pin, tape-measure, emery, spool of thread and spool of silk. If there are many to name the list may be lengthened by giving a color to the various spools. The children are seated in a circle about the room. One child stands in the center, with a round tin plate, and twirling it like a top says, "My lady must have her scissors before I count six." "Scissors" must then jump to catch the plate before the twirler has finished counting. Failing to be quick enough, "Scissors" takes the center and calls for any other article he may desire.

"Robin's Alive"—An older person should watch this game to see that no one is careless. A small rod of green wood is lighted, and the flame blown out so that only a glowing coal remains. The players having been seated in a circle, one takes the lighted stick and says:

"Robin's alive, and alive he shall be;
If he dies in my hand my mouth shall be bridled,
My back shall be saddled,
And I'll be sent home to the king's white hall."

Immediately the stick is passed to the next, and so on until the spark entirely dies out. The one in whose hand it is extinguished must undergo the described penalty. The child lies upon the couch face downward and eyes covered. Each of the others in turn holds up some article, like a book, a handkerchief or a ribbon, saying, "Heavy, heavy, what hangs over you?" At the first correct guess the prisoner is released, the stick is relighted and the game is resumed.

Farmers and Mechanics—As all have something to do at the same time in this game it is very enjoyable. One leaves the room, and the others decide upon a trade, which they will represent by pantomime. suppose "blacksmith" was chosen; when the absent one returns two will be hammering upon an imaginary anvil, another pretending to shoe a horse, another manipulating an invisible pair of bellows. Or maybe they have chosen to be farmers; then some will be tossing hay, others milking, one pushing a plow made of a chair, another feeding chickens.

Shopping—The leader says, "I went shopping this morning, and everything I bought began with A. From the grocer I bought (points to a player and waits for response) from the druggist (points to another) from the dry-goods store, from the baker," etc. The responses must be given quickly. The penalty is to take the place of the leader.

The Wonderful Guesser—One of the company must explain privately to another how this trick is done, and later propose that an exhibition of guessing be given. Number one then leaves the room, while the company decide upon an object to be guessed. Number two asks the questions, always naming the desired object immediately after something with four legs. In case the company think they have discovered the signal, it may have been agreed upon previously that on alternate guessings the object will be named after something black.

Color Thimble—Seat the players in a close circle on the floor around a cupful of water, and tuck a handkerchief under each one's chin. The leader takes a thimble, dips three drops (no more) from the cup and mentally chosen a color. Each is asked in turn what color was thought of, and into the face of the correct guesser the three drops are dashed and the thimble handed over as a reward, with the chance of being leader. The three cold drops will inevitably cause a gasp and then a peal of hearty laughter.

Hot Buttered Beans—Select a small article that can be easily hidden. One player leaves the room, and when the article is secreted returns at the call, "Hot buttered beans; won't you come to supper?" A clue to the hiding-place is given by saying the beans are cold or warm, or hot, or burning, according to the proximity of the seeker.

◈

Play Stock Farmer

I think that the following will furnish entertainment for the children for a good many hours, especially if they live in a village or in the country. Take some old farm papers and seed catalogues, cut out the pictures of horses, cows, sheep, pigs, hens, ducks, etc., also those of grain and vegetables. Then get a quantity of small sticks, toothpicks will do; I used to split shingles into the required lengths.

Clear off the table or a large space on the floor, and fence in a big farm, use strings to make wire fences. Then build a house and barn, plant potatoes, corn and beans, and sow oats and wheat. Get pictures of wagons, plows and cultivators and pin horses to these for doing farm-work. Make money out of paper. Have someone run a market and ship your stuff to him. If there are several playing, run two or three farms. If a train of toy cars is at hand it will add another very enjoyable feature. In this way I used to spend many happy hours with my boyhood playmates. Nelson A. Jackson.

Lady's Pictorial

COASTING—A CHRISTMAS PASTIME

The Puzzler

The Six Pictures Below Suggest the Names of as Many Books of the Old Testament of the Bible

Answers to Puzzle in the December 1st Issue: Tillman, Foraker, Long, Bard, Bailey, Lind

The Angels' Message—A Christmas Song

Words and Music by Stanton Howard

Moderato.

1. Far o - ver the plains of Ju - de - a,..... Where shepherds were watching by night,.....
2. A - cross the wide world is still streaming..... The light of that first Christ-mas morn..... Came float - ing mys - te - ri - ous mu - - - sic From the star o-ver Beth - le - hem's man - - - ger From skies fill'd with mys - ti - cal Where Christ the new King was

ad lib.

p *cresc.* *mf*

light..... Hal-le - lu - jah! The shepherds are dream - ing, But o - ver and o - ver a - gain..... The
born..... Hal-le - lu - jah! The whole world is sing - - ing The an-gels' glad ti-dings to men..... Re -

ff *mf* *p* *p* *accel.*

an-gels re-peat - ed their mes - - sage Of peace and good will un - to men..... Hal-le - lu - - - jah! The
peat - ing the beau - ti - ful mes - - sage Of peace and good will un - to men..... Hal-le - lu - - - jah! The

ff *p* *a tempo.*

mf

shep - herds are dream - - - - - - ing, But o - ver and o - ver a - gain,..... The
whole world is sing - - - - - - ing The an - gels' glad ti - dings a - gain,..... Re -

Ped. *Ped.*

f *ff* *mf* *rit. e dim.* *p*

an - - - gels re - peat - ed their mes - - - - - sage Of peace and good will un - to men.....
peat - - - ing the beau - ti - ful mes - - - - - sage Of peace and good will un - to men.....

8va. *Ped.*

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The Housewife's Christmas Dinner

The Christmas Dinner

THE Christmas dinner never loses its importance in the celebration of the great day, and this number on the program, coming under the immediate direction of the housewife, who is supreme in the kitchen, the eyes and thoughts of the whole household are necessarily upon her. We wouldn't attempt to tell the experienced housewife what she should have for Christmas dinner. She usually determines that herself, but we offer the following suggestions, as made by Fannie Merritt Farmer:

CREAM OF CELERY SOUP

Where one has a simple dinner a cream soup is not too substantial for a first course. I have a new cream of celery soup which is delicious. Cut three stalks of celery in one-inch pieces, and pound in a mortar until well macerated. Cook in a double boiler with one slice of onion and three cupfuls of milk for twenty minutes. Melt three tablespoonfuls of butter, add three tablespoonfuls of flour, and pour onto the hot liquid. Season with salt and pepper, add one cupful of cream. strain into the tureen, and serve at once.

ROAST GOOSE

Roast goose is the most popular Christmas bird. It belongs to Christmas as the turkey does to Thanksgiving. Massachusetts and Rhode Island furnish especially good ones, plump, and with skins almost white. A goose needs to be carefully dressed for roasting, or it is liable to have a very strong flavor which is undesirable. When ready for the operation singe the bird, remove pin feathers, and wash. The goose needs literally a bath in hot soapsuds, and a scrubbing, too, with a vegetable brush. Then draw (which is removing the contents of the inside). What comes next? Wash and rinse in clear, cold water, and wipe just as dry as possible. Stuff, truss, sprinkle with salt and pepper, and place on its back on the rack in the dripping pan. Arrange thin slices of fat salt pork over the breast, each slice to be cut five or six times from the edge opposite the rind nearly to the rind. Bake two hours in a hot oven, basting every fifteen minutes with the fat in the pan, removing the pork from the breast after the first hour and a half of cooking. Garnish with celery tips and strings of cranberries, and serve without a gravy.

POTATO STUFFING

Potato stuffing always goes well with a roast goose. Mix two cupfuls of hot mashed potatoes, add one and one fourth cupfuls of soft stale bread-crumbs, one third of a cupful of butter, one beaten egg, one and one half teaspoonfuls of salt and one teaspoonful of sage; then add one fourth of a cupful of finely chopped fat salt pork, and one finely chopped onion.

Turkey and cranberry sauce; goose and apple sauce; so it has been; so let it be. Not a plain, old-fashioned sauce, perhaps, but one of another kind.

SWEET POTATOES, SOUTHERN STYLE

Season mashed boiled sweet potatoes with butter, salt and pepper; moisten with rich milk and beat vigorously. Put in a buttered baking dish, leaving a rough surface. Pour over this a syrup made by boiling two tablespoonfuls of molasses and one teaspoonful of butter three minutes. Bake until delicately browned.

SPICED APPLE SAUCE

Wipe, quarter, core and pare eight or ten sour apples. Make a syrup by boiling for seven minutes one cupful each of sugar and water, to which has been added eight cloves, and thin shavings from the rind of a lemon. Put in pieces of apple to cover the bottom of the saucepan and cook until soft; repeat until all are cooked; then strain the remaining syrup over the apples.

CHEESE CROQUETTES

When dressed lettuce is served for the salad cheese croquettes are a new novelty to pass with the course, and butter or water biscuits are passed, too. Scald three fourths of a cupful of milk with two slices of onion, and then remove the onion. Melt four tablespoonfuls of butter, add three tablespoonfuls of flour and pour on gradually, while stirring constantly, three fourths of a cupful of hot milk. Add three fourths of a cupful of grated soft cheese, season with salt and cayenne, and spread on a plate to cool. Shape into balls about one and one half inches in diameter, dip in crumbs, egg and crumbs again, fry in deep fat, and drain on brown paper. Arrange on a plate covered with a folded napkin.

STERLING FRUIT PUDDING

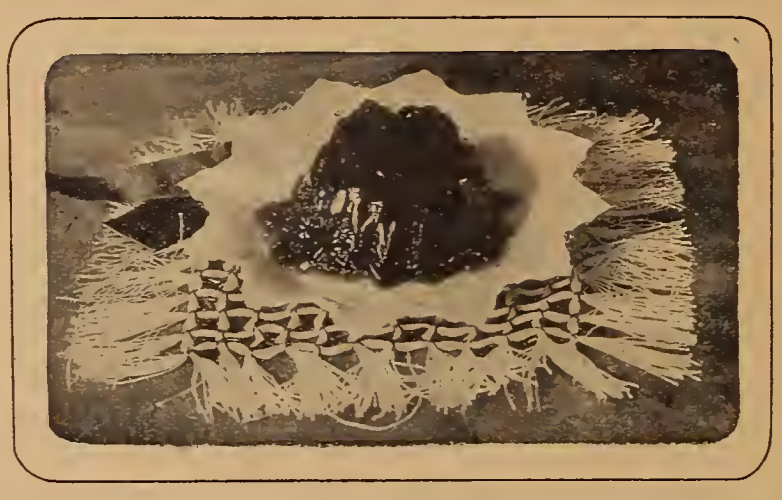
In the genuine English plum pudding, which so many demand at Christmas time, both wine and brandy enter into its composition, but for many of us who care to avoid the use of alcohol a substitute is found in sterling fruit pudding.

Finely chop one cupful of suet, then work with the hand until creamy. Add one cupful of molasses, one cupful of sour milk, and two and one half cupfuls of pastry flour mixed and sifted with one and one half teaspoonfuls of soda, one teaspoonful of cinnamon, one half teaspoonful of cloves, one half teaspoonful of grated nutmeg and three fourths of a teaspoonful of salt; then add one cupful of raisins, seeded and cut in pieces, three fourths of a cupful of currants and one third of a cupful of citron cut in thin strips and mixed with one fourth of a cupful of flour. Turn into a buttered mold, cover, and steam four hours. Turn onto a serving dish covered with a lace paper doily. Garnish the top with a small branch of holly bright with red berries, and surround at the base with

SNOW BALL SAUCE

Cream one third of a cupful of butter, and add gradually while beating constantly, one cupful of powdered sugar; then add one tablespoonful of cream, two thirds of a teaspoonful of vanilla and one third of a teaspoonful of lemon extract. Shape in balls, and roll in shredded cocoanut.

MACEDOINE SALAD—This is a pretty and inexpensive salad, since the materials for it may be the left-overs of a day or two before. They may consist of cold boiled beets or carrots, cold boiled potatoes, green peas and string-beans. Cut the larger vegetables into neat cubes, and arrange each variety by itself on lettuce. Do not put carrots and beets in the same salad. Their colors jar upon the beholder. Dress with a French dressing made in the proportion of one tablespoonful of vinegar to four of oil, one teaspoonful of salt and one fourth of a teaspoonful of black pepper.



CRANBERRY JELLY—Cook one quart of cranberries in a double boiler, adding no water to them. After they have broken to pieces, squeeze them and measure the juice. Allow one pound of sugar to each pint of juice, put it back over the fire, and when it comes to a fast boil stir in the sugar. Boil up once, take from the fire, and turn into small molds wet in cold water. Serve one of these to each guest on an individual plate.

PEPPERS STUFFED WITH RICE—Select green peppers of uniform size, cut off the stem end and remove the seeds. Throw the peppers into boiling water, cook for five minutes, then take them out, and drain. Have ready enough boiled rice to fill them to overflowing. Stand the peppers thus stuffed in a baking-dish, and dress the rice well with butter. Pour a little weak stock about the peppers, and let them cook, covered, for ten minutes in the oven—just enough to heat them thoroughly. Uncover, leave them in the oven for five minutes longer, and serve them in the dish in which they were baked.

PARISIAN DOLL ICE CREAM

For a real Christmas dessert Parisian doll ice cream takes the banner for me this year. I found the conceit in New York this summer, but I hope by the holiday season it will make many an eye twinkle at the Christmas dinner.

These little dolls are placed over a frappe glass of rich vanilla ice cream covered with pounded and rolled macaroons, or individual paper cases may be used in place of the frappe glasses.

Buy jointed dolls four inches high and remove the legs. Stuff the holes in the body with cotton wool, and by means of sealing wax fasten on a circular light-weight cardboard standard one and three fourths inches in diameter. Cut a piece of white crêpe paper twenty-six by four inches for the petticoat. Paste the ends together, shirr the top, and fasten around the doll at the waist line made by the standard. Cut a piece of red crêpe paper twenty-six by six and one half inches for the dress. Paste the ends together, shirr the top and draw up around the neck. After making arm holes and slipping arms through, then fasten around the waist line. Paste five points made of green crêpe paper, on each of which is fastened a tiny bell, around the skirt at the waist line; also paste five small points on the waist, and tie around the waist line a sash of red baby ribbon. Make the hat of two pieces of thin cardboard. On one side paste red paper, on the other side green paper, and sew on a bell. Make bows ornamented with bells for shoulders.

CHRISTMAS CAKES

For the Christmas cakes cream one half of a cupful of butter, and add gradually one cupful of sugar, continuing the beating; then add the yolks of three eggs, well beaten, one half of a cupful of milk, and one and three fourths cupfuls of flour mixed and sifted with two and one half teaspoonfuls of baking powder. Beat vigorously, and add the whites of three eggs beaten stiff, one half of a cupful each of walnut and pecan nut meats finely cut, and one half of a cupful of seeded raisins finely cut. Bake in a buttered and floured shallow pan. Remove from the pan, and spread the top with white frosting. Cut in triangular shapes, and ornament each with three green leaves, and small, round red candies to represent berries.

Use of Beef Scraps

BY HILDA RICHMOND

THIS is the name applied in many families to the tongue, heart, leg bones and odd pieces of meat when a beef is butchered, and many times some of the scraps go to waste before they are all eaten. It is a common thing to boil the calf's liver for the chickens and only save enough for one "mess" out of the whole thing.

In many neighborhoods the kindly fashion of dividing the scraps solves the problem and keeps the family—every family—in fresh meat the entire season. A whole beef liver would be monotonous, but liver once a week with crisp bacon is a different matter. If all the soup bones in a fat beef were to be used up by one family while they are fresh there would be time to serve nothing else, but the soup bones can also be divided among the neighbors, and the meat cast upon the waters will return quickly to the sensible housewife in the form of other bits of liver and soup bones. Every housekeeper should keep suet in the house during cold weather, both for puddings and for frying, as it is cheap and healthful.

BAKED HEART WITH DRESSING—Wash and clean the heart. Fill with a bread dressing made with stale bread soaked in cold milk or water and highly seasoned with sage, salt and pepper or onion in place of sage. Chopped celery can also be used or any desired flavoring. Brush the heart lightly with butter or lay on it some thin strips of smoked salt pork. Baste often and bake until done thoroughly.

SUET PUDDING—Into one quart of flour shave a small cupful of suet very fine. Add a pinch of salt, one ounce of citron cut fine, large cup of raisins, one egg, cup of currants and enough sweet milk to make a stiff batter. Tie up in a floured cloth and boil three hours. Never allow the water to stop boiling and keep the kettle filled with boiling water to add as it boils away.

SAUCE FOR SUET PUDDING—Blend together without lumps one tablespoonful of butter, one half cupful of sugar, three tablespoonfuls of flour and proceed as for starch by adding boiling water and stirring until thick and smooth. Add any desired flavoring, though nutmeg really goes with this pudding, and serve hot over the slices of pudding.

SUET FOR FRYING—Cut the suet fine and slowly fry out in a frying pan. Mix with equal parts of ham frying or bacon fat, being careful to keep out the salty sediment and allow to cool for frying. This is especially good for frying potatoes.

LIVER AND BACON—Cut thin slices of beef liver and cook lightly on both sides after seasoning with salt and pepper. When half done add a number of slices of bacon and fry all slowly together until done. The bacon gives the liver a delicious flavor.

Keep Your Child's Confidence

"I WISH my Mamie would give me her confidence as your Laura gives hers to you," said my friend and neighbor, as we sat in her pleasant room one afternoon. "You two seem more like two sisters than like mother and daughter, and I never see your pleasant companionship without wondering why, when I have three daughters, not one of them gives me her confidence, makes me her friend, but each one has her girl friends in whom she confides."

I felt sorry for her, and though I thought I knew the cause, still I feared to offend by telling her, but at this moment Lena, her youngest girl, a child of nine years, entered the room, came up to her side and began to tell her mother of a mishap she had had that afternoon at school. Mrs. H. only said, "Well, well,

RECEPTACLE FOR NIGHT-CLOTHES

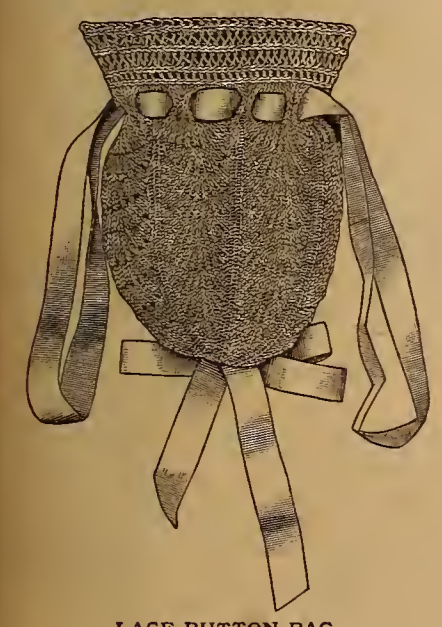
mamma don't care anything about *that*. Run away now, for mamma is busy."

That was what I had heard her say many, many times. So on the spur of the moment, I said, "Mrs. H., would you really like to have Lena confide in you as Laura does in me?" "Indeed, I would," was the quick reply. "Well, then, never put her off as you did just now. Let her find you an interested listener to all she wishes to tell you, and be sure to give sympathy if there is any occasion for doing so. I used to treat my daughter in the same way, but one day when she was only a little girl, and had wanted me to take and comfort her after having a slight fall, I put her off, saying, 'You're not hurt. Run and play with Alice. Mamma is very busy now.'

"She went away but some good angel then and there revealed to me that if I kept putting her off, she would soon cease to ask for or to expect my sympathy, and I would lose one of the sweetest comforts a mother can have, that of having raised a daughter who considers mother her best earthly friend. I said to myself then, 'I will always be able to find work, but one of these days I will look in vain for my little girl. She will be grown up, and I am afraid, grown away from me.'

"From that time I treated her differently. It often required a sacrifice, both of my time and inclinations, but I have never regretted it."

"Thank you so much," said my friend. "I do believe I can yet win Lena's confidence, as I shall certainly try to do so. I never realized before how much I have put my children away from me. It seems as though I had always been saying, 'Run away, now. Mamma is busy.' Perhaps by watching my chance I may also be able to show the older girls that



LACE BUTTON BAG

I am interested in all that concerns them, and they may yet come to me as they tried to do when they were younger."

I. B. H.

◈

Arm Protector

A PROTECTION for the short-sleeved arm, when a loose-sleeved garment is worn, is here illustrated. It is made as follows:

Cast on medium-sized steel knitting-needles 75 stitches of light blue wool floss. Purl for seven rows. Knit plain eleven rows on medium-sized bone needles with white wool floss, then purl seven rows of blue with the bone needles, eleven more of the white, another band of blue, eleven rows of white and finish with another band of blue. This makes four blue bands, one inch wide, of fine knitting, and three puffs three inches wide of coarse knitting in white. M. E.

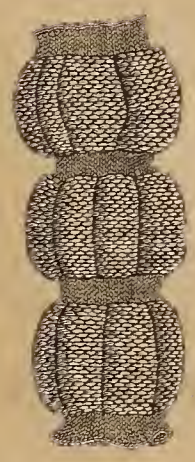
Knitted Button Bag

THIS calls for crochet cotton No. 50 and three needles. On each of the needles cast 24 stitches.

1st Round—K 1, p 1, all around.
2d Round—K plain.
3d Round—N, o 2, n, repeat around.
4th Round—K 2, p 1, * k 3, p 1, repeat from *, knitting last stitch on 3d needle.
5th Round—K p.
1st Round of Shell Work—K 1, p 1, k 1 (o k 1), 8 times, p 1, repeat around.
2d Round—K 1, p 1, k 17, p 1, repeat.
3d Round—K 1, p 1, sl and b, k 13, n, p 1, repeat.
4th Round—K 1, p 1, sl and b, k 11, n, p 1, repeat.
5th Round—K 1, p 1, sl and b, k 9, n, p 1, repeat.
6th Round—K 1, p 1, sl and b, k 7, n, p 1, repeat.

Repeat these 6 rows until there are 7 shells.

To decrease 1st Round k 1, p 1, sl and b (o and k1) 5 times, o, n, p 1, repeat.
2d Round—K 1, p 1, k 13, p 1, repeat.
3d Round—K 1, p 1, sl and b, k 9, n, p 1, repeat.
4th Round—K 1, p 1, sl and b, k 7, n, p 1, repeat.
5th Round—K 1, p 1, sl and b, k 5, n, p 1, repeat.
6th Round—K 1, p 1, k 7, p 1, repeat.
7th Round—K 1, p 1, k 1 (o, k 1), 6 times, repeat.
8th Round—K 1, p 1, k 13, p 1, repeat.
9th Round—K 1, p 1, sl and b, k 9, n, p 1, repeat.
10th Round—K 1, p 1, sl and b, k 7, n, p 1, repeat.
11th Round—K 1, p 1, sl and b, k 5, n, p 1, repeat.
12th Round—K 1, p 1, sl and b, k 3, n, p 1, repeat.
13th Round—K 1, p 1, sl and b, o, k 1, o, n, p 1, repeat.
14th Round—K 1, p 1, k 5, p 1, repeat.
15th Round—K 1, p 1, sl and b, k 1, n, p 1, repeat.
16th Round—K 1, p 1, sl and b, k 1, p 1, repeat.
17th Round—K 1, p 1, sl and b, p 1, repeat.
18th Round—K 1, p 1, sl and b, repeat.
19th Round—N 3 times, repeat. Break thread, slip off stitches remaining, draw up and fasten.



ARM PROTECTOR

Upper edge cast on 8 stitches.

1st Row—Sl 1, k 1, o 2, p 2 to, o, p 2 tog, o, p 2 to.

2d Row—O 2, p 2 tog, o, p 2 tog, o, p 2 tog, k 2. Repeat these 2 rows for length required, join ends and sew around the edge of bag; draw ribbon through eyelets, add a bow and ends at the point.

SARAH E. WILCOX.

(*Abbreviations*—K, knit plain; p, purl or seam; n, narrow; sl and b, slip and bind; o, thread over needle; o 2, thread over needle twice; p 2 tog, seam 2 stitches together.)

◈

Fried Oysters

SELECT large oysters, drain them on a cloth, dip in beaten egg and cracker dust, season cracker dust to taste. Fry to a nice brown in hot butter. Tested.

◈

For the Night Clothes

IN OPENING your traveling bag, or in going to spend the night with friends, this little receptacle for your night-wear looks much more elegant than to be rolled in paper. It is made from some pretty bright silk or chintz, just as you wish. Make it twenty-four inches long and eighteen wide, leaving the one end straight, and rounding the corners of the other end. Notch on either side from rounding end one and one half inches back. Bind the round end with ribbon, turn a little hem on the straight end, then gather both sides, and sew to the end a piece made of the same material cut three inches in diameter. Sew the gathered sides firmly around the ends, then turn the whole bag and stitch on the machine. Lap your round end over the plain one, and fasten with a tie of ribbon to match the binding on the end of the case. M. E.

◈

Mincemeat

THREE pounds of meat, one pound of suet, six pounds of apples, three pounds of raisins, one pound of currants, one pound of citron, two tablespoonfuls of cloves, two of cinnamon, one of allspice, two nutmegs, two lemons, one tablespoonful of salt, one teaspoonful of pepper, three pounds of sugar, one half pint of baking molasses, as much cider as is needed.

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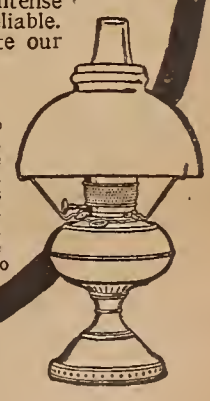

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No. 849—Misses' Shirred Waist with Guimpe
Pattern cut for 12, 14 and 16 year sizes.

How to Dress

By Grace Margaret Gould

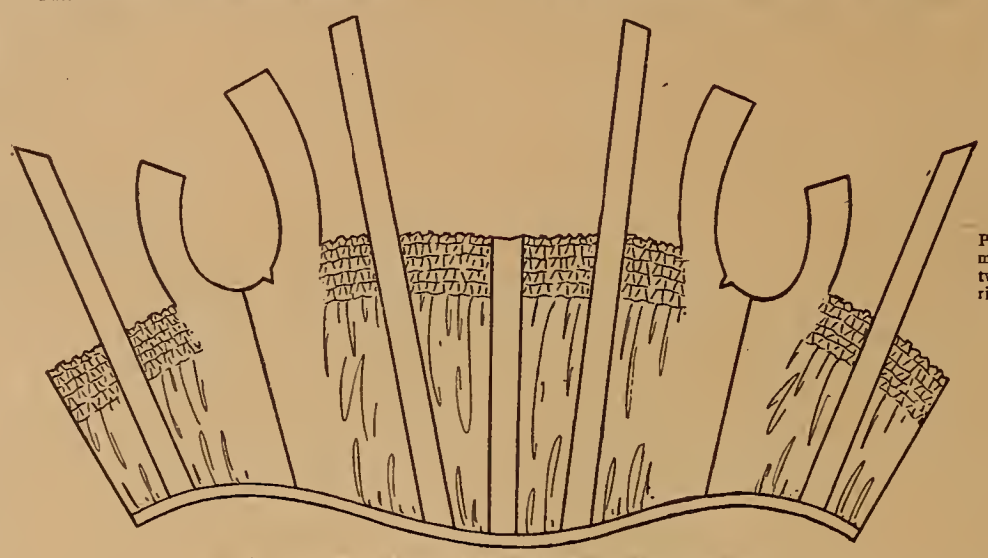
MANY tailored waists will be worn this winter, buttoning in the front, and made with long sleeves. Fine French striped flannels will be much favored for these waists, and madras, both in Scotch plaid and white with a jacquard figure. The more severe in style the better these waists are liked. Pockets are among their admirable features.

In regard to the more elaborate waists, the new tendency is away from the lingerie model and toward the waist of supple satin or chiffon taffeta. These silk waists are to be the height of style. Then, there are the equally fashionable crêpe de chine, net, and chiffon-cloth waists, which will be so trimmed with laces that they will affect the lingerie style.

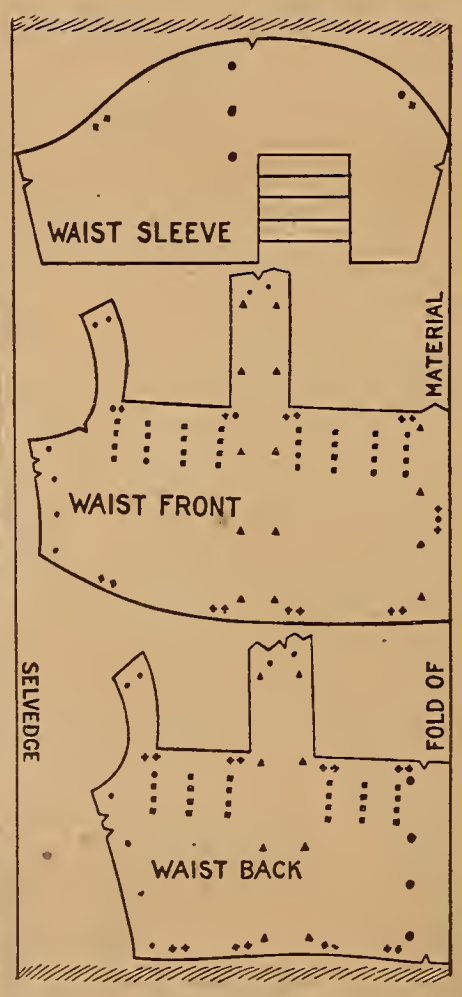
Styles that are easily adaptable are the best to select in planning clothes for the girl in her "teens." The dress problem for a girl at this age is a rather difficult one, for one day she is only a little girl with short dresses and her hair in a braid down her back, and then, before you know it, she has blossomed into an attractive young woman, wearing skirts of ankle length and putting her hair up in the very latest mode.

A guimpe waist like the one illustrated on this page is specially appropriate for a young girl as it lends itself to many changes with little expense.

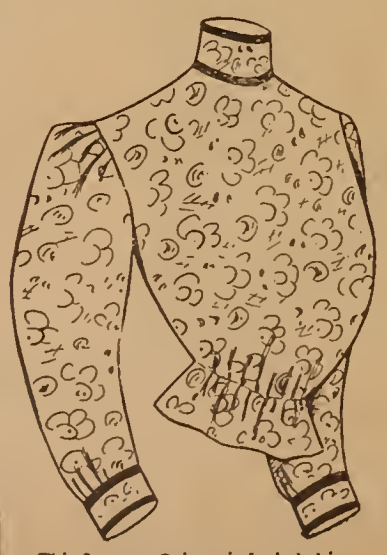
The waist itself may be of the same material as the skirt, making a smart costume which may be developed in silky poplin, soft Henrietta cloth, silk serge, or ladies' cloth in plain color. With this waist, for dress occasions, may be worn a guimpe of lace, like the one here pictured. Then to make another change the guimpe may be of bright plaid silk. These gay plaid silk guimpes are very fetching and seem to be just made for young girls.



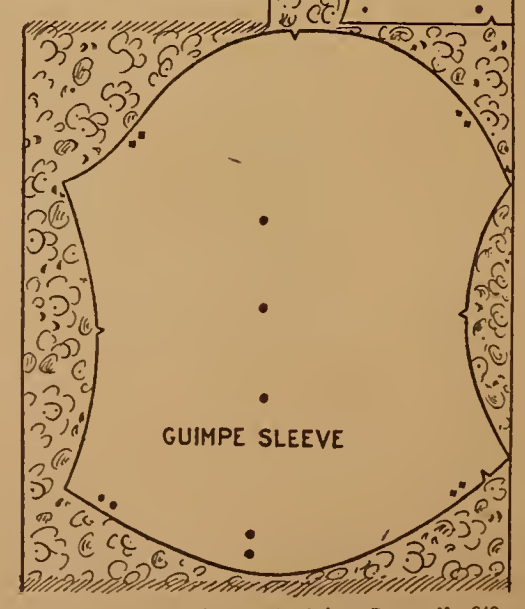
No. 849—The Waist Before the Shoulder-Seams Are Put Together



How to Lay the Pieces of the Waist Pattern No. 849 on the Material

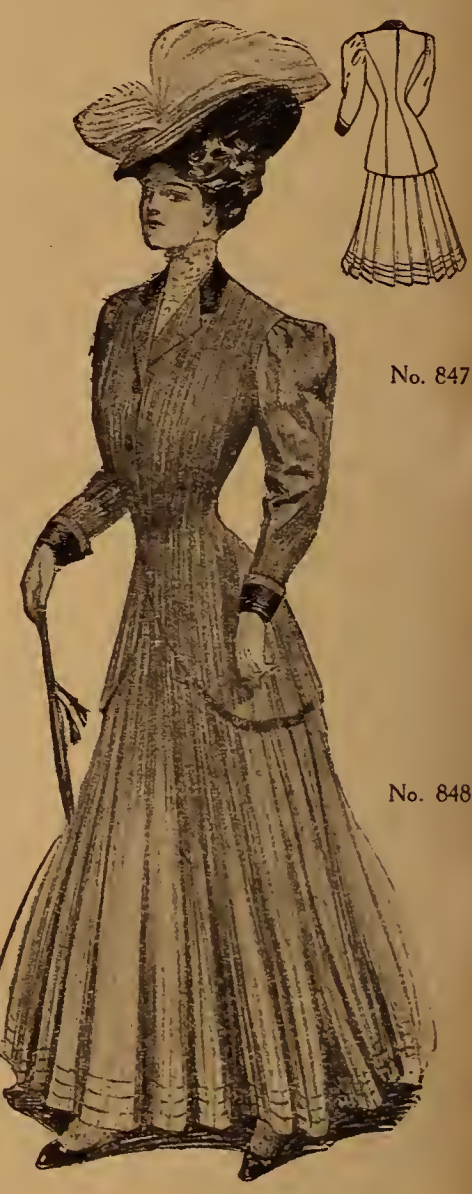


This Separate Guimpe is Included in Pattern No. 849



Showing How the Pieces of the Guimpe Pattern No. 849 Are Placed on the Lace

No. 811—Box-Plaited Shirt-Waist with Pockets
Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material.



No. 847

No. 848

No. 847—Tailored Cutaway Coat

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five yards of thirty-six-inch material, or three and one half yards of forty-four-inch material, with one half yard of velvet for collar and cuffs.

No. 848—Tucked Kilted Skirt

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt, 41 inches. Material required for medium size, or 26 inch waist, eleven yards of material thirty-six inches wide, or eight yards of material forty-four inches wide.

PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Department, The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the number and size of the pattern desired. Our new winter catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

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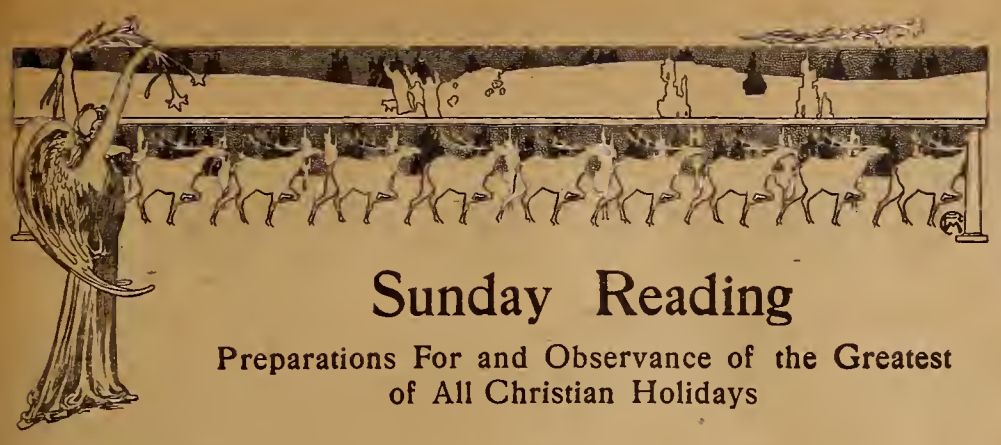

Sunday Reading

Preparations For and Observance of the Greatest of All Christian Holidays

"CHRISTMAS will soon be here now," is heard on all sides, and the person who is not busy preparing or deciding upon gifts that will make hearts glad is not to be found. Ever since the chill October and November days passed out the annual Christmas preparations have occupied the attention of the housewife and the daughters.

And it is just at this time that we realize the futility of trying to abolish Christmas as a great domestic celebration. It is all very well to talk of it as old fashioned, out of date, etc., and pretend that grown-ups find the cheery, charitable, and generous rôle a boresome one to play nowadays, but all the same, directly Christmas-tide comes within range, and the shops begin to put forth the first signs of the approaching festival, it is always very noticeable that the general public is quite ready to follow the lead and dive deep into preparation for the great season.

We commence early, for not only is it of those about us that we have need to think, but perhaps, fathers, mothers, brothers, sisters, sons or daughters in other climes. We want to know when Christmas comes that those dear ones afar off are eating the same goodies as ourselves, that they, too, are lovingly handling our Yuletide gifts, that the same Christmas cards with which our postmen are struggling round their routes are gladdening the eyes and cheering the spirits of the exiles. And thus it is we begin early to prepare for Christmas. In the post-offices daily one hears inquiries concerning the latest time for despatching parcels to distant countries, and be the clerks ever so busy, they always seem ready and willing enough to give the required information about the times for sending letters and packages so that they may reach their destination on Christmas eve. There is, indeed, a touch o pathos in the early days of the Christmas preparations. May none of us ever grow too old to celebrate the gladsome season, and as we do celebrate, let us not forget to do at least one Christian act that will make glad the heart of someone less fortunate than ourselves.

Mrs. Margaret E. Sangster asks:

"Did you ever try to analyze the feeling of joy which comes over you at the very mention of Christmas?"

"It is a good deal like trying to analyze a fragrance or a memory or a strain of sweet music. When Christmas comes we are glad. We may be tired, or ill, perplexed, distressed, or worse than all, pessimistic and cynical, but Christmas with its triumphant note will always somehow get the better of our lower moods and raise us to the universal plane of sympathy and good fellowship. Of course it is preeminently the children's day, and the thought at the very heart of it is the thought of the Child who came to Bethlehem long ago. Our Christmas trees, our Christmas gifts and our Christmas anthems alike celebrate the reign of the Child. On one bright day in the twelvemonth, old or young, rich or poor, learned or illiterate, native or foreign born, we are subjects in the happy kingdom of the Child. No other festival is so purely altruistic. No other, not even Thanksgiving, so elevates and ennobles the home.

"A dear lady whom I used often to see told me that as a duty to herself she always spent several days in comparative idleness during Christmas week. She said, "I loaf on purpose. I think it is my duty." Whether or not we do this we owe it to the higher life that we all ought to cultivate to spend a little time at Christmas in reading Christmas poetry and Christmas stories.

"When the Christmas joy is at its height there is often underneath it a haunting regret, a minor note of pain, since there are always dear ones whom we miss at any happy anniversary. There is a pretty Scandinavian legend which brings in very simply the thought that those who have gone are near us again in the Christmas time. I do not know its author.

Christ was born upon this night,
  Mistress, spin no more.
Master, seven good candles light,
  The dead are at the door.

Spread the cloth as white as snow;
  Sprigs of rosemary set
That the blessed dead may know
  We remember yet.

Pour the wine and break the bread,
  Put green boughs about.
We, too, shall be remembered
  When our day is out.

"Why should we not think of them at Christmas, our loved ones whose voices we sometimes seem to hear in the night, whose vacant chairs have never yet been filled?

"Another rich opportunity that should not be neglected at Christmas comes to us in the opportunity then given to hear good music. The angels brought the songs of heaven to earth on the morn when Christ was born. We may imagine the shepherds in the quiet moonlit fields watching over their flocks, when suddenly the skies were rifted and a great company of angels, visible to the eyes of those simple people, began to sing as only the heavenly choirs can. The burden of their song was "Glory to God in the highest; on earth peace; good will toward men." After the shepherds heard that song they hurried to Bethlehem to see the babe and its mother and to offer their simple tribute of praise.

"The night before Christmas is to children the most thrilling night in the year; they hate to go to bed. They try to stay awake that they may have a peep at Santa Claus. They are listening for the footfalls of his reindeer.

"I am glad that this Christmas he is visiting homes not here in America only, not only in the German Fatherland, and in old England, Norway, Sweden, Italy and France, but that he has found his way to Egypt, Syria, India, Corea, China and Japan. Other saints lose their halos and forget their missions. Saint Nicholas grows busier younger and more indispensable with every passing year, and his bailiwick extends to every coast in the round world. For pity's sake, dear mother, do not join the crowd of literal unimaginative people who are timid lest children believing in Santa Claus shall learn to be untruthful. The deepest truths are those of the soul and it is not always possible to put them in the form of an affirmation or a denial While love remains in the world, and hearts are bound to hearts, and little children bring their own wealth o gladness with them, and we share loaf and cup with those less fortunate than ourselves, Santa Claus will continue to be the patron saint of the affections.

By a beautiful road our Christmas comes,
  A road full twelve months long,
And every mile is as warm as a smile,
  And every hour is a song.
Flower and flake and cloud and sun,
  And the winds that riot and sigh,
Have their work to do ere the dreams come true
  And Christmas glows in the sky.

The holly and cedar and mistletoe,
  They thrilled when the nights were chill,
For the maiden's glance and the madcap dance
  And the lover's foot on the sill.
For the Christmas mirth the brave pine grew,
  Serene and straight and tall,
The deep woods knew in their hush and dew
  When the dearest of days would fall.

To the beautiful home our Christmas comes;
  To the home that is safe and sweet,
With its door ajar for the beams of the star,
  And its corner for love's retreat.
There the mark on the wall for the golden head
  Is higher a bit, for lo!
Between Christmas coming and Christmas sped
  There's time for the bairn to grow.

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SPRINGFIELD, OHIO

Marlin

Here is the newest and lightest .22 repeating rifle on the market —the *Marlin* Baby Feather-Weight.

Think of a 3 pound 10 oz. repeating rifle which is as effective as any .22 of equal length of barrel in the world!

The extra carrier, quickly installed, makes the rifle handle the .22 long-rifle as well as the .22 short cartridge.

No sacrifice of *Marlin* quality has been made in producing the light *Marlin* Model No. 18. All the good old *Marlin* features are there: the solid top and side ejection, the forged steel working parts and the fine steel barrel.

Send six cents for catalogue, which tells in detail about this wonderful little rifle.

The Marlin Firearms Co.,
141 Willow Street, New Haven, Conn.

WANTED Agents and Canvassers working in the country and small towns can find ont abont the greatest side line money maker ever introduced by simply dropping us a postal. Will pay your expenses anywhere as a side line or roll np the dollars quickly if you want to give it more time. We also want farmers' boys and girls to become agents in their neighborhood. Price small bnt pays big. It sells itself when shown. Write today to
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SWEATER
FOR EVERY BOY

FREE

This sweater is guaranteed to be all wool, large, roomy and comfortable. Just the very thing you need for the cold winter days that are coming. There is no one article of clothing that is more necessary for any boy in the winter than a good all-wool sweater like ours. When we send you the coupons we will tell you how to order so that you get a good fit. Now remember this is no cheap sweater, but a fine all-wool, guaranteed article —the very best that is made. Do you know you can earn this sweater in one day's time, and easy, too. Be sure to write to-day, and the first thing you know you will be the happy possessor of one of these elegant all wool sweaters, and all the other boys will wish they *had one*, too. Let's hear from you.

HOW TO GET IT FREE

Send us your name and address on a postal card to-day
and ask for twelve coupons, and say you want a sweater.

We will send by return mail twelve coupons, each one of which is good for a year's subscription to Farm and Fireside, one of the best farm and home papers published in America. Comes twice a month. 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 25 cents each. When the coupons are sold, you send the $3.00 to us, and we will send you the sweater, prepaid.

It is easy to sell the coupons. Thousands have earned sweaters by our plan, and you can do it in one day's time. Write to-day. Be sure to ask for twelve coupons

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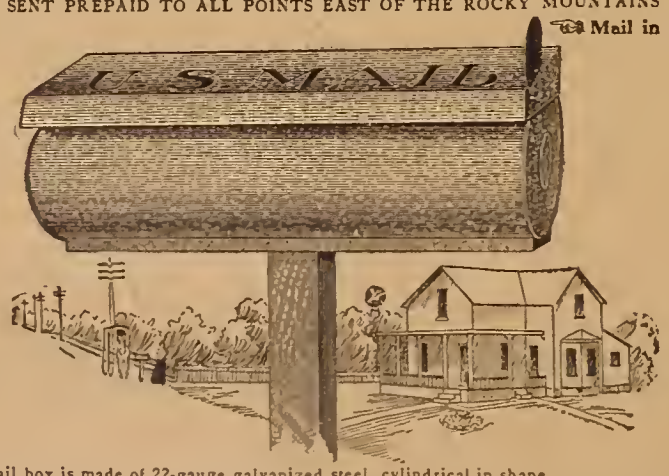
SPRINGFIELD, OHIO

IDEAL RURAL MAIL BOX
Only $1.75 (Prepaid)
Stormproof, Indestructible, Large and Roomy
SENT PREPAID TO ALL POINTS EAST OF THE ROCKY MOUNTAINS

Mail in the Box



The Ideal mail box is made of 22-gauge galvanized steel, cylindrical in shape.
It is large and roomy, rainproof, eighteen inches long by six inches in diameter, which makes it capable of holding quantities of newspapers, packages, letters, etc.
It is so built that the wind or storm cannot remove the cover or find its way inside.
It is nicely finished, and is so arranged that a lock can be put on if necessary.
Has red painted signal attached, which shows plainly when mail is in the box, and is invisible when the box is empty.
It is most simple in operation, and one of the most satisfactory mail boxes on the market at so low a price.
The box has been approved by the Postmaster-General at Washington.
It is strongly made, well braced and neat in appearance.
It attaches to a strip of wood by means of screws, which are furnished with the box, and is easily and quickly set up.

REMEMBER, we pay shipping charges on this mail box to all points east of the Rocky Mountains only. To other points receiver pays charges.

FREE The above mail box will be given free for a club of only twelve yearly subscriptions to Farm and Fireside at 25 cents each. Receiver pays shipping charges.

Send all orders to FARM AND FIRESIDE, Springfield, Ohio

Of Curious Interest

Roosevelt's Country Home

PROBABLY no ruler in the world has such a modest country home as the President of the United States. It is situated in the heart of the wilderness in the state of Virginia, and is called Pine Knot, because it is nearly hidden in a clump of pine trees. The house was partly built of the timber of trees cut in the woodland to make a clearing for it, and the porch in front is supported by posts of these trees left in their natural state.

The Roosevelt home is so far away from the nearest railroad that the President and his family are obliged to ride horseback or drive in a vehicle for several hours after leaving their car to reach it. The nearest community of any size is over twenty miles distant, and so few people live in this part of the United States that between the town and Pine Knot it is said only about ten houses can be seen.

This quiet spot was selected for a home by Mrs. Roosevelt, the wife of the President. The house cost actually less than $300, and many American laborers and farmers live in far better homes. The few people in the vicinity have much larger houses, but it is comfortably furnished and has a large open hearth where a fire is always burning on cold days and in the evening. The house has but four rooms and a small shed, where the meals for the President's family are cooked by the one servant. Sometimes, however, Mrs. Roosevelt, who is an expert in cuisine, prepares the meal with her own hands. The most popular part of the house during the day is the porch in front. Here the President cut down the trees with his own hands to give a vista through the forest.

The house is located about 150 miles from Washington and the President and Mrs. Roosevelt are fond of going there for three or four days occasionally to rest. They ride horseback, hunt and take long walks for exercise. During the holidays last year they spent the week at Pine Knot. It was here also that the President prepared his present message to Congress.—D. A. Willey, in World's Events Magazine.

Origin of the Term Horse-Power

WHEN steam engines were first brought into use they were used to work pumps for mills whose motive power was formerly given by horses. So when making their contracts the owners of the engines found themselves called upon to supply engines that would be capable of executing the same amount of work as was formerly done by some certain number of horses.

When an engine was capable of performing the same work in a given time as any given number of horses of average strength usually performed it, it was said to be an engine of so many horses' power.

Steam engines had been in use a long time before this term had acquired any definite or settled meaning, and the nominal power of engines was accordingly very arbitrary. The use of the steam engines becoming more extended. the confusion arising out of questions respecting the amount of work done by them made it necessary that some fixed and definite meaning should be assigned to the terms by which the powers of this machine could be properly expressed.

From the result of a number of trials it was found that 33,000 pounds, raised one foot per minute, was the value of one horse's power. This is the unit or standard of engine power now universally adopted, and when an engine is said to be so many horses' power, what is meant is that the engine is capable of moving a resistance equal to so many times 33,000 pounds weight one foot per minute. ALONZO RICE.

Tolstoi's Boots

WHEN young, Count Tolstoi learned the shoemaker's trade, and to this day wears boots made by himself. The old shoemaker who taught the Count the trade was satisfied that he would never make a success of boot-making, as the work Tolstoi put into each pair was too excellent and entirely too slow to prove profitable, or even earn for him a simple livelihood.

Bohemian Proverbs

Do the hard things first.

It's hard to work, but harder to want.

The heart that loves must be prepared to suffer.

The world doesn't owe you a living—it was here first.

Money isn't everything, but it often makes a good imitation.

A girl with a dimple will laugh at any fool thing a man says.

It is easier for the average man to keep a dairy than a diary.

The only man who never made a mistake died when he was a boy.

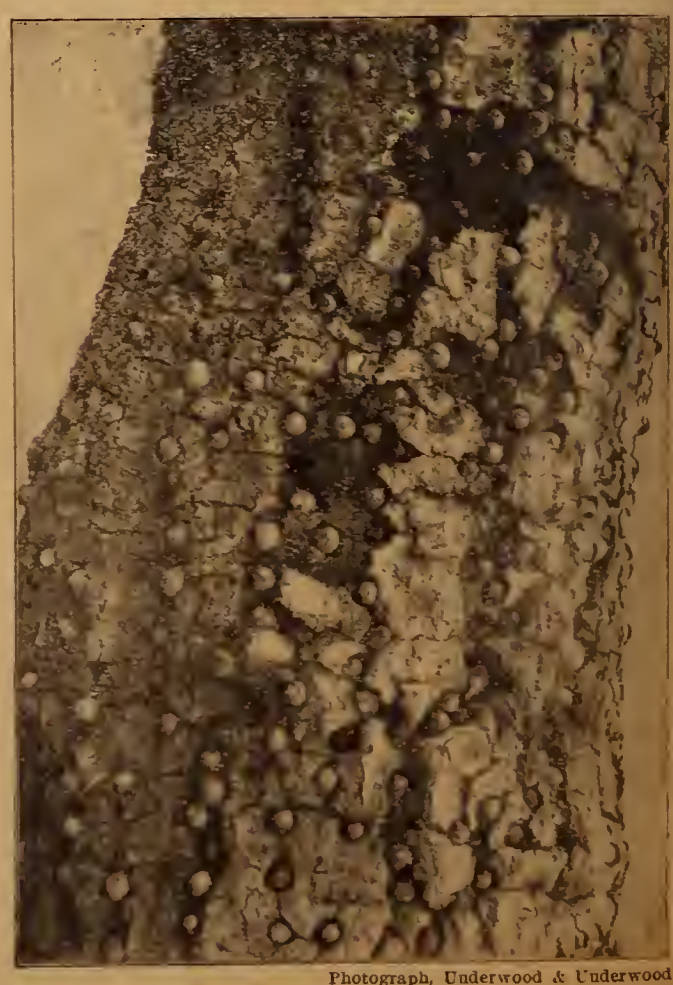
Valued Treasure-Box Found

WHILE hunting for some lost papers recently the director of the treasury of Brazil made a remarkable and valuable discovery.

A box, which had not, apparently, been disturbed for many years, was found to contain gold, silver and diamonds to the value of at least $700,000. Among the valuables recovered are the imperial crown and scepter of Brazil, valued at $105,000, and the imperial mantle bordered with gold. The box in which the treasure was found is believed to have been deposited in the treasury since 1836.

Married Titles

NO LESS than twenty-one American women now enjoy, more or less, the title of Princess. Of this number Italy has the largest share, Russia and Poland come next, with Germany, Austria in order, and even the wily Turk gets two. It is estimated that in all some 500 wealthy American women have married titled foreigners, and that the aggregate amount of their doweries exceeded $200,000,000. The most heavily dowered bride was the Duchess of Roxburghe, with a fortune of $40,000,000. The others include the Duchess of Marlborough, $10,000,000; the late Lady Curzon, $5,000,000; Countess Castellane, $15,000,000; Mrs. Vivian, $12,000,000; Baroness Halkett, $10,000,000; Lady William Beresford, $3,000,000; Princess Colonna, $2,500,000; Countess Von Larisch, $4,000,000.



Photograph, Underwood & Underwood

ACORNS STORED IN LIVE-OAK TREE BY RED-HEADED WOODPECKERS, CARPINTERIA, CALIFORNIA

The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit $1.00, addressed to "Law Department," this office, and get the answer by mail

Right of Wife to Collect Note Against Husband

A. J. S., Kentucky—By the laws of Kentucky, a wife can sue and be sued the same as a single woman, and the statutes at my command do not make any exception to the rule in reference to suits against her husband or his estate. Therefore I would say that such a note could be collected.

◈

Share of Husband in Wife's Estate

M. M., Pennsylvania—In Pennsylvania where a wife dies without leaving children, the husband takes all the personal property absolutely, and the real estate he gets for his life. After the husband's death this property would go to the family of the wife.

◈

Right Where Title is Defective, etc.

G. W. Q., Virginia—Unquestionably in such a case the purchaser would have a right to recover what he already paid, as the seller is unable to comply with the contract. There might be more difficulty upon the proposition as to the right to recover for improvements made. The purchaser knew or ought to have known before he made the improvements that the title was defective, and it was his fault as well as the fault of the seller. Of course if the seller knew that he could not give a good title, then the contract would be a fraudulent one, and my opinion would be that the purchaser could recover not only the money paid down in cash but also for improvements placed on the property. But if the seller did not know that his title was defective, and the purchaser put improvements on the property, then I am doubtful whether the purchaser could recover for such improvements. He might remove them if he did so before he gave up possession of the land. Better consult a local attorney.

◈

Right to Soil in Street

C. V., New York—I do not believe that the trustees of an incorporated village have any right to remove this soil, especially without the consent of the owner. If they had no right, they could not give any right to anyone else. The person that removed the dirt would be directly responsible, and the owner of the lot might proceed to sue him and collect the value of the same.

◈

Right to Land Where Boundary Line Changes

L. N., Maine—The fact that the boundary lines as given in a deed for lands may be changed does not change nor determine the boundary of the land. As in this query the boundary of a piece of land is made on the road or stream, and if the stream or road would change its course, that would not make a change in the boundary line of the land. Of course, if after such stream or road was changed, the parties would treat the new course of the road or stream as the boundary, this in a series of years might ripen into a title by adverse possession, but otherwise not. I do not think that A. can will the property at all.

◈

Marriagable Age in Ohio

L. A. T., Ohio—In Ohio a female may be married when she arrives at the age of sixteen, by consent of her parents or legal guardian and at the age of eighteen without such consent.

◈

Name of Wrong Street Given as Boundary of Lot

J. H. S., Ohio—In this case I would say that the deed is good. The designation of the lot and block would be sufficient to show that the parties intended that it was on the street upon which the such lot fronted, no matter whether the same was Oak Street or Victor Avenue. In such a case the description would be sufficient to identify the property, no matter whether a street was given or not.

◈

Inheritance

J. M., Pennsylvania—A.'s property would go to his father if he be living, and if not, then to his mother; if the mother be dead then to his brothers and sisters. His wife's children would have no interest in it.

Residence of Child in the School District

D. S. C., Massachusetts—In order for a child to receive benefits of free schooling or tuition in the public schools he must be a bona fide resident of the school district. This residence is usually the residence of the parent, but if the child should go to some other place, with the intention of making that his permanent home, or in other words making it his home until he could find some other place of permanent abode, then he could attend school in such district free of tuition. But if he merely went to reside for a few months or a short period of time or for the sole purpose of attending school in that other district then tuition could be collected. So in the above case, if the child has gone to reside with a grandparent, not for the purpose of going to school there, then my judgment would be that tuition would not be collected or required, but if the child is going to the grandparents in order to get to attend the city schools, then tuition must be paid.

◈

Locating Land and Mineral Claim

A. G. P., Alabama—I do not know what the character of the land is, nor the title by which it is held. You should write the Commissioner of the Land Office, at Washington, D. C., and he will send you a pamphlet giving all the laws relating to such matters so far as the United States Government is concerned. If the title to this land is in your state, you will need to make inquiry of your auditor of state.

◈

Right of Wife to Property Where She Leaves Husband

C. M. F., West Virginia—A wife is not bound under all circumstances to live with her husband. The husband must properly perform his duties before the wife will forfeit her right to support in case she leaves him. I would think in the above case that the wife would have sufficient ground for leaving the husband and compelling him to support her elsewhere.

◈

Lifting Mortgage on Property

W. E. B., Florida—I do not understand exactly what relation B. sustained to A., and why B. borrowed the money and lifted the mortgage. If B. was one of the heirs and lifted the indebtedness it would be my judgment that the other heirs would still be responsible to B. for the money he had expended in saving the property from the mortgage indebtedness, but if B. was an entire outsider, having no interest in the property, then I do not see how A.'s heirs would be in any manner bound.

◈

Relating to Railroad Property, etc.

J. T., West Virginia—The querist will be obliged to make his query a little more intelligible before he can expect a proper answer.

◈

Sharing of Husband's Property Between Wife and Children

Mrs. W., Louisiana—As I understand the laws of Louisiana, in case the husband dies, the wife would get one-fourth of the property, and the remainder would be shared equally between all his children, whether they be by the present or former marriage.

◈

Contract Between Husband and Wife

C. W., Kentucky—I do not know that I can fully advise you of your rights in this case. Of course if the husband agreed to pay his wife a certain salary or anything of that kind he is responsible and she could collect the same. If the wife agreed to any of the above changes or methods of raising the crop and by reason of such change the crop was lost, she might be compelled to bear her share of the loss.

◈

Liability of Person Living in Country to Pay Taxes on City Property

J. D. R., Massachusetts—The general rule concerning the taxation of property is that real estate is taxable in town, village, or county in which it is located, and that personal property is taxed in the town, village, or township in which the owner resides. The querist must pay taxes upon his city property, although he lives in the country, and the rate of taxation will be according to the city rate.

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FOR over a year you have received more reading matter by half than is given by any farm paper published for double the price.

We have just added a great Feature Magazine, a notable novel, "The Strange Adventures of Helen Mortimer," by Maude Roosevelt, and six of the most beautiful color pictures from the brushes of great artists. And—

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24 big numbers, beginning with the Christmas number—equal to 1600 standard size pages—more reading matter than any magazine published for $4—the Giant of the Farm Press.

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The work of great painters, reproduced in luxuriant colors, in large size—9 in. x 14 in. —on heavy super calendered paper, suitable for framing—they will surely please you.

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especially for the woman of the family. This is a little surprise we have planned for you, and you will like it we know. "It" is something every lady will appreciate—and should have. Remember, it is free if your order reaches us in time.

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Farm and Fireside is now thirty years old, one of the oldest and largest farm publications in the world.

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The gift is intended chiefly for the ladies of the family, but it will be appreciated by all.

The Editor of THE FIRESIDE DEPARTMENTS will send this Christmas present to you with his compliments. It will bring cheer and goodwill into your home.

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FARM AND FIRESIDE, Springfield, Ohio.

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(Town or City).....

(State).....

This coupon, if mailed before December 25th, certifies that the sender is entitled to a **Christmas Present.**

Wit and Humor

A Christmas Feast

WE HAD been married only a month when Jim — dear, cranky boy that he is—decided that he had become a vegetarian. Of course if he were to decide to become a pirate, I suppose I would have to be a—er—piratess, so we started out bravely enough.

Maybe it wouldn't have been so bad in the summer, but, really, there doesn't seem to be anything in the winter for a vegetarian to eat except potatoes. I declare positively that I developed a brogue in the course of that awful month. For we really stood it a month, though that month seemed years and years.

I would go blocks out of my way to avoid passing butcher shops where dear, delicious, cannibalish meats were hung up. And when they began to put out great, lovely, plump Christmas turkeys!

Jim and I both made desperate attempts to be cheerful Christmas morning, but I must confess it was something of a failure. We had declined the invitations of both his folks and mine to take dinner with them, and had made an attempt to get through the day in our own apartment. I had noticed a queer, guilty look in Jim's eyes, and was not surprised when about six o'clock, he got up, and, as if it had just occurred to him, exclaimed: "By George! I have got to run 'round to the club for about an hour, girlie. We are giving Griffin a silver shaving set and I want to hear his little talk when he is presented with it.

I said nothing. For the only time in my life I was glad to see Jim go. And he couldn't have been much past the outside door before I had on my hat and furs.

I was desperate. I was bound to have something to eat, and I knew of a dream of a little restaurant just around the corner. Jim and I had had supper there many times. I almost ran when I finally got out on the street.

The place was rather crowded when I reached it, the only place vacant being at a table where a man was already seated; but I was too hungry to mind anything by that time, so allowed the waiter to seat me opposite him. He was reading an evening paper, which was held so that I could not see his face, and he did not glance over it when I sat down.

Then the waiter came to get my order.

"Oh, I want a lot of turkey and just everything!" I said, and he was so astonished that he almost dropped a glass of water.

The man across the table lowered his paper—and I was looking into Jim's eyes, and they were dancing.

"Waiter," he said, "cancel that order of mine and the one the lady has just given and bring us a turkey, a whole one, and everything else that you have —except potatoes. Don't bring any potatoes."—New York Sun.

◈

Another Unlucky Brother

A rural correspondent sends in the following story of "The Unlucky Brother!":

"Nuthin' good seemed ever to come his way. He is the very sign-post of misfortune, warnin' others on the life-road. Only the other day he clumb a tree to git rid of a mad bull an' a hurricane come 'long an' blowed him an' the tree 'cross the railroad track, right in front o' the fast freight, an' the train was wrecked, and the engine cut off his good leg; and blest if the railroad didn't turn round and sue him fer train-wreckin'!"—Atlanta Constitution.

◈

Nacher Studys

THE K NINE OR PUP FAMILY.

The K nines ar a smaller famly then the fee lines or cats, all tho the animuls ar a good deel biger in Size. the only thing wich be longs too the Dog famly be sides dogs an pups ar Wulvs. wich Rome a bout at nite an houl thare throtes sore an hoarse. but i no nuthin ov thare Habits an wher a bouts an so wil not molest them with a discushion.

Dogs, wich ar my foundashun in this ishu, ar difrent in size an carakter. sum bite an sum ketch rats wile sum ar simply Valubul too ly in wimens laps, the triflin things.

But the dog wich i am a goin too rite a bout did pa a Awful trik. seein is beleevin an i saw it, so yu can be leeve it or not as yu plees. yu no pa dident see the dog. an wen he set down on the corn sack wich i had put over the dog too keep his skin warm wy the dog kinder moovd an muttered a longish yel. wel, pa wus not akustumd too such trix, so he got up quick an run out in the yard sideways an run in too a be hive ov bees, wich cuvered him an went too Wurk yu bet o, i tel yu pa wus ful ov pane an be stings. wich ar much a like. so wen pa cum in he wus so big the dog dident no him, wich barkt at him an finelly bit him, wich made pa so Awful mad with angur an pane he kikt the dog a awful kik, an sent him forty feet, an now both ov them cant eat thare Daley bread.

THE FEE LINE OR CAT TRIBE.

Thare are meny broots wich be long too the cat or fee line Tribe ov animuls, such as the comun triflin Hous cat, an the Monstrus Panter an tiger wich Rome thru forest an swomp an all so the turrebul Wile cat wich is a Mitey animul wich can eat a lam, but the cat on wich i hav baste my tale is wot is comunly called a pole cat or otherwise a Skunk wich contains a big Bushy tale an considerbul smel or sent. the reesun i no ov same is be cos ma wont let pa sleep in the hous, wich he sleeps in the barn on the hay, wich the horses dont seem too Notis any thing rong.

Pa dident no the pole cat or Skunk wus any wher a round til he saw him a hidin in a bunch ov Briurs. so pa pickt up a picket an pocked it at the beest, wich kinder razed his tale an started too moov too a more sootabul locashun too liv in. but pa bedded him off, an poked him agin an agin, cos i saw him, tho pa sez he run be fore he poked him the last time but i say how cood he. so pa tript his self up amung the gras an fel square on the murderd Skunk, tho i dout if he wus ded for he wus gone wen i went thare that evenin. wot pa wants too no is wether he can ever go in the hous any more or not an how Long but i say if the cat had a bin ded he woodent have mooved a way. Bil.

Harper's Weekly

THE DARKEY'S CHRISTMAS DINNER

The Sketch

"WILL IT BE SEEN?"—A TALE OF THE MISTLETOE

Long Root

An Irishman, with one jaw very much swollen from a tooth that he wished to have pulled, entered the office of a Washington dentist.

When the suffering Celt was put into the chair and saw the gleaming forceps approaching his face, he positively refused to open his mouth. Being a man of resource, the dentist quietly instructed his assistant to push a pin into the patient's leg, so that when the Irishman opened his mouth to yell the dentist could get at the refractory molar.

When all was over, the dentist smilingly asked:

"It didn't hurt as much as you expected, did it?"

"Well, no," reluctantly admitted the patient. "But," he added, as he ran his hand over the place into which the assistant had inserted the pin, "little did I think them roots wint that far down!"—Success.

◈

Sooty

"Is that boy crazy?" roared the perspiring stage manager.

"What boy?" asked the leading man.

"Why, that boy I sent up in the flies to tear up paper for the snowstorm. The blockhead is actually tearing up black paper."

"Oh, that's all right. You must remember this scene represents a snowstorm in Pittsburg."—Chicago News.

◈

Just a Soft Murmur

A woman whose throat had troubled her for a long time grew impatient at the slow progress she was making, and consulted her doctor.

"Madam, I can never cure you of this throat trouble unless you stop talking and give your throat a complete rest," said the medico.

"Oh, doctor," objected the patient, "talking can't affect me! I'm very careful. I never use harsh language!"—Tit-Bits.

◈

Change

Chevrolet, the automobilist, was talking of American railways.

"They are superb," he said. "Abroad we have nothing like them. But the expense! On my way down to Florida I said to the porter, as the time drew near for us to part:

"'Porter, you have been very attentive and I want to give you something, but I have no change.'

"Then I took out a $20 bill from my wallet.

"'Certainly, sir.' the porter answered, pulling out a large roll of money. 'How will you have it, sir? In fives?'"—Argonaut.

◈

Household Hints

To make biscuits light—drench with gasoline and ignite before serving.

How to keep servants—chloroform them and lock in the cellar.

Quickest way to get rid of peddlars —buy all they have.

How to remove fruit stains from linens—use scissors.

To keep rats out of the pantry—place all food in the cellar.

To entertain women visitors—let them inspect all your private papers.

To entertain men visitors—feed the brutes.

To keep the children at home—lock up all their clothes.

To keep hubby at home—hide his toupee.

In order to prevent accidents in the kitchen—fill the kerosene can with water.

To stop leaks in pipes—send for the nearest plumber.

To economize on coal—get a gas range.

To test the freshness of eggs—drop them on some hard surface.

To propitiate the cook—it can't be done.—Smart Set.

◈

Winter Miseries

The furnace fire's started now
And trouble has begun,
For it is difficult to suit
The whims of every one.
Elvira thinks it is too hot—
You know, she's rather stout—
While Eunice says, "I'm freezing cold!
Don't let the fire go out."

Maria wants the damper up
And Mildred wants it down.
Whichever way I fix the thing
I'm greeted with a frown.
Oh, I shall welcome with a whoop
The advent of the spring.
And when the winter is all gone
I'll cheer like everything!

—Somerville Journal.

The Boston Man and the Capsules

He told the other patients at the sanitarium that he was from Boston, and said it much as he might have said, "I am President of the United States." But his fellows of unsound bodies did not show the least readiness to fall down on worshipful knees. Even had he been one of the elect of Boston, thoroughly starched and ironed as to his mind, it is doubtful if they would have made genuflexions, for Boston is the better part of four thousand miles from southern California, and its awe-inspiring radiance is a weakly spluttering candlelight by the time it has crossed the continent. And he was not one of the elect.

"From Boston!" cried a rheumatic young civil engineer, also from that city. "Looks more like a man from Posey County, Indiana, or," he corrected himself, "like a product of the tropical zone—the land of eternal green."

Perhaps the young civil engineer spoke sarcastically, for at times his rheumatism played on his nerves as though they were banjo-strings; but he spoke very near the truth. Despite his proud origin and an unlimited amount of money "green" fitted the self-proclaimed Bostonian as if it were a word tailored for him expressly. His trousers were so bagged at the knee that they looked knobby; his shoes were of that once common sort known as "Congress;" his face was a lurid sunset-red; and if that little book on etiquette, called "Don't," had been destroyed to the last copy it could easily have been reconstructed from observation of his manners. Yet he said he was from Boston; and as a further proclamation of this fact he always carried with him a volume of Emerson's Essays—a book which no one ever saw him read.

"The Boston Man"

One day he sent word to the medical director of the sanitarium that he was feeling decidedly out of sorts. The medical director came, looked him over, asked a few questions, and went away. A few minutes later a nurse brought to the Boston man's room a small box of capsules that contained a white powder. In accordance with the time directions on the box, half an hour later he proceeded to take two of the capsules, and to take them after his own fashion, for this was his first experience with them. He carefully emptied the contents of the two into a spoon, added a little water, and then emptied the spoon into his mouth.

Immediately he fell upon his bed, and writhed and coughed and called aloud. A nurse attending a patient in an adjoining room hurried in in response to his cries.

"Water!" he gasped.

The nurse hastily poured him a glassful of water, which he gulped down. Then she called the physician. When that gentleman rushed in, the man from Boston indignantly demanded:

"See here"—a fit of coughing—"what did you give me that infernally hot stuff for?"

The doctor's quick eyes lit upon the empty capsules, and he instantly knew the cause of the trouble.

"You fool!" he cried, in exasperation. The doctor specified the exact variety of fool, but there is no use writing down his word, for the editor would cross it out. "You fool! Of course it's hot! That's why I put it up in capsules! What did you take it out for?"

A knowing look came over the face of the man from Boston. "Say, now," he demanded, sarcastically, "you don't suppose I wanted that ising-glass down in my stomach, do you?" Leroy M. Scott.

◈

False Doctrine

School-examiner — "What is the meaning of false doctrine?"

Schoolboy—"Please, sir, it's when the doctor gives the wrong stuff to the people who are sick."—Christian Register.

◈

As the Dakota Man Told It

"Yes, sir," said the Dakota man, as a crowd of agriculturists seated themselves around a little table, "yes, sir; we do things on rather a sizable scale. I've seen a man start out in the spring and plow a furrow until fall. Then he turned around and harvested back. We have some big farms up there, gentlemen. A friend of mine owned one on which he had to give a mortgage, and the mortgage was due on one end before they could get it recorded on the other. You see, it was laid off in counties."

There was a murmur of astonishment, and the Dakota man continued:

"I got a letter from a man who lives in my orchard just before I left home, and it had been three weeks getting to the dwelling-house, although it had traveled day and night."

"Distances are pretty wide up there, ain't they?" inquired one.

"Reasonably, reasonably," replied the Dakota man. "And the worst of it is, it breaks up families so. Two years ago I saw a whole family prostrated with grief. Women yelling, children howling, and dogs barking. One of my men had his camp truck packed on seven four-mule teams and he was going around bidding everybody good-by."

"Where was he going?" asked a Gravesend man.

"He was going half-way across the farm to feed the pigs," replied the man from Dakota.

"And did he ever get back to his family again?"

"It isn't time for him yet," replied the Dakota man.

◈

Evidence

"The evidence shows, Mrs. Mulcohey, that you threw a stone at Policeman Casey."

"It shows more than that, yer Honer. It shows that Oi hit him."—Minneapolis Tribune.

◈

Nuggets from Georgia

Heaven ain't on de hilltop; it's always one mo' hill furder on.

Don't worry about how long it took ter make de worl'; you'll have all de worryin' you kin do ter des pull thoo' it.

W'en we gits ter glory we won't quarrel 'bout a crown. Ef I kin des manage ter git dar, I'll be willin' ter go bal'headed!—Atlanta Constitution.

◈

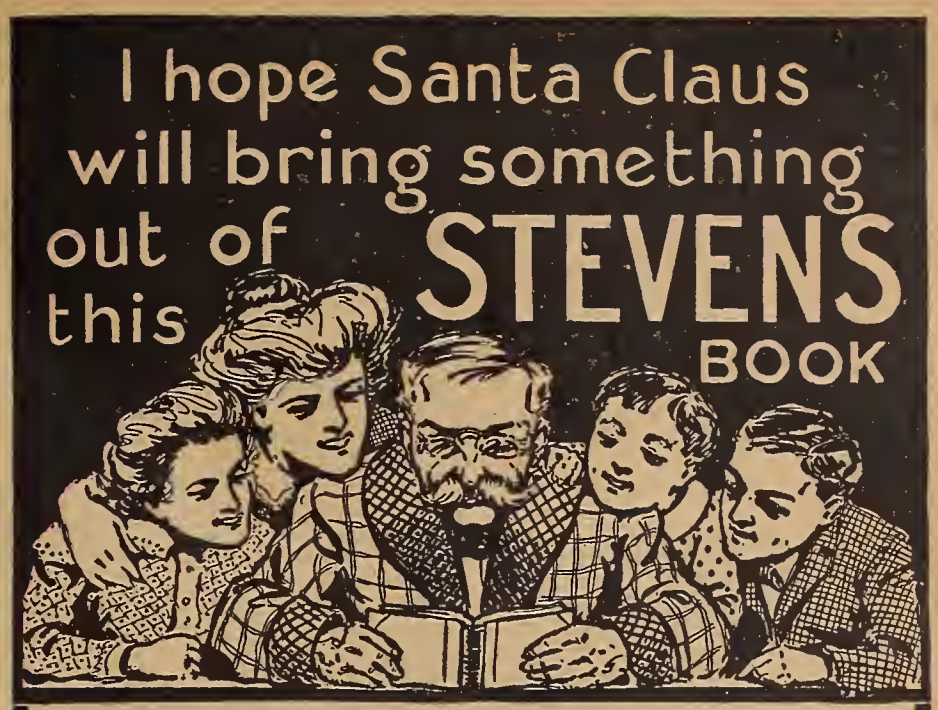
An "Awfultory"

On a recent Sunday morning at the Mount Zion Baptist Church, after the collection for current expenses (which included the pastor's salary) had been taken up, old Parson Slocum rose to address his congregation. "Brudders an' sistahs," said he, with sternness and dignity, "befoah de barsket was don' parsed aroun' among de saved an' de sinnahs, I hab expounded ter yo' all de bequest dat de con'gration contribute to de awfultory accordin' to dere means, an' I expectorated, sho an' suttin', dat yo' all would un'erstan' de true significashun ob dat oxpression an' would chip in unanomously and harnsom'ly. But I fin' after examinin' de collecshun, an' allowin' fer de usual ovation ob buttons an popcorn, dat de hull, entire, concocted amount contributed by de hull posse ob yo' am on'y de signification an' pusillamous sum ob seventy-free cents, which wouldn't be 'nuff ter buy a linen suit fo' a Jersey moskeetah on de fourth ob July! An' at dis junction dere ain't no excuse nor 'casion fo' yo'-all to look so auspiciously at Brudder Webster Willyams, what done circumambulated de barsket aroun'; fo' in de fust place an' premises, Brudder Willyams ain't bin built dat way—he ain't dat kin' ob a man—an' in de secon' place, I done watched him lik a hawk

"Dere ain't no excuse fo' yo'-all to look so auspiciously at Brudder Webster Willyams"

mahself all de time' he were circumnavigatin' wif de barsket. No, my disap'intin' fren's, seventy-free cents war all dat war flung inter de awfultory, an' I jis' want ter say dat, in my hum'l opinion, insted of contributin' accawdin' to yo' means yo' hab all contributed *accawdin' to yo' meanness!* De choir will now favor us with der reg'lar melojiousness."

Stillett A. Burke.



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In a Miscellaneous Way

A Chinese American Father

THERE are not a very large number of Chinese babies born in our country annually, but those that are find a warm welcome, particularly if the baby happens to be a boy. In this event the friends of the happy father are expected to bring handsome gifts for the child, and there is much feasting and merrymaking over his arrival. Some of the rich Chinese merchants in New York have babies of whom they are immensely proud, and one of these babies and his father present a spectacle of dazzling brilliancy when they are dressed up to have their pictures taken. The baby in our illustration is the son and heir of a rich New York merchant. His father is a Chinaman of unusual intelligence and business ability who is so enamored of America and American institutions that he proposes to become a permanent resident of our country and will give his boy an education in our American schools, but the boy will also have to become proficient in the Chinese language, and is apt to adopt the faith of his fathers in matters pertaining to religion. Very few of the more intelligent of the Chinese who come to America become converts to our protestant religion, but cling as tenaciously to the faith of Confucious as they do to their pig-tails. That they may do this and at the same time become American citizens adds to the charms of our country for them.

A RICH NEW YORK MERCHANT AND HEIR

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Mary and the Caller

ROBERT, the impeccable, was the primal cause of Mary being a member of the household of Mrs. Burton-Hayne. He had come to his mistress with a petition in behalf of Mary, and, since he was a living handbook of deportment for coachmen, revised and carefully edited, Mrs. Burton-Hayne had given him a more ready ear than she would have given to any of her other servants. She had reasoned, after hearing him through, that inasmuch as Robert was without flaw, it naturally followed that Mary, his cousin, was also faultlessly trained. So, being in need of a girl for the front door, she gave permission for Mary to come.

Mrs. Burton-Hayne's reasoning was not right, and neither was Mary. Robert had neglected to state that she was just over, and it is fairly evident that a two-room cabin in the county of Limerick is not an ideal training-school for a servant in an establishment in upper Fifth Avenue. But on the first day when Mary, after having been put into a black dress and a white apron, with a bow of white in her hair, was brought before Mrs. Burton-Hayne she was well pleased; for Mary was shapely, had red cheeks, a clear skin, and a smile that could make agreeable for callers the coldest of "not at homes." She was really proud of Mary, and this pride lasted through three days. On the evening of the third day Mary became second assistant to the cook.

This third day—the snow fell heavily from dawn—was Mrs. Burton-Hayne's regular day for receiving. Through two hours she talked to her callers and saw they were served with tea. Then when the last had gone she went to her room, slipped into a dressing-gown, and laid down for a bit of rest before dinner at seven o'clock. She had barely made herself comfortable when Mary entered with, "Please, mum, there's a man downstairs, an' he says he'd be likin' to see you."

Mrs. Burton-Hayne sat upright and groaned. "What? Another caller? I just can't see another! I'm tired!" She looked regretfully at her pillow, and at the snow-whitened street into which she had been sleepily gazing, then rose. "I suppose I'd better see him, though. Tell him I'll be right down."

She hurried into the stiff and wearying gown she had just taken off; but no matter how a woman hurries, dressing takes time, and Mary was back again before her toilet was remade.

"He wants to know how much longer he'll be havin' to wait?" Mary asked, without introduction.

Mrs. Burton-Hayne started at this bold statement of an impatient man's feelings. She had kept men waiting before, probably had exasperated them, but never previously had one been quite so frank.

"I'll be down as soon as I can get ready!" she returned sharply. "But you haven't brought me his card yet! Ask him his name, and serve him with tea while he waits!"

Two minutes later, before Mary had returned with her caller's name, Mrs. Burton-Hayne fastened a red rose in her back hair, and took a parting glance at herself in the mirror. She was looking her best, she noted with a little thrill of satisfaction. Then she hastened downstairs. At the door of the front parlor she stopped suddenly and stood gasping.

On one of her pale blue satin chairs sat a frowzy, hairy man in overalls and a brown-duck coat. On the floor at his feet was a fragile china cup. In his left hand was a dainty sandwich, and in his right hand was a saucer filled with tea to the brim, and this tea he was cooling by a gentle breeze from his puckered lips. She saw him halve the sandwich at a bite and raise the saucer to his lips and drain it. She could only stand and stare.

Mary, entering just then with a plate of sandwiches—evidently he had asked for more—caught sight of her mistress without the doorway, and up to her she slipped with a confident smile that showed her sense of having done her whole duty.

"I asked him his name," she whispered. "He says it's McGann—Terry McGann. An' he want's to know if you'll be wantin' the snow shoveled from off the sidewalk."

LEROY M. SCOTT.

A Devoted Royal Pair

THE life of the King of Roumania, and Elizabeth, his queen, stands out in striking contrast to the lives of some other royal couples whose domestic troubles have afforded the scandalmongers abundant food for gossip. King Charles and Queen Elizabeth, or "Carmen Sylva," as she is known in the world of literature, have always been entirely devoted to each other, and have demonstrated the fact that theirs was a real love match. It was the mating of a pair who have known perfect happiness had they been given children. This lack has been a great sorrow to both of them. One child came to them, a beautiful little girl, the Princess Marie, and the tragedy of the queen's life dates from the day when the little princess was taken from the palace in her little white coffin. One of the ladies of her court, Madame Helene Vacaresco, has written a great deal about the daily life of the King and Queen of Roumania, and in writing of the little grave in which so many of the high hopes of the Queen lie buried she says:

"On the grassy mound a white cross throws its straight shadow, and on the shadow of that cross Queen Elizabeth's heart is crucified. Like the green mound cut in twain by that shadow, her heart is cut in twain by the form of that simple cross. Her bosom bears the load of that stone, and the little mound of Roumanian soil where her child is buried rises high above her eyes, higher than the highest mountain, till it has hidden all the future from her view."

Apart from the sadness she ever feels over the loss of her only child, Queen Elizabeth is cheerful, and she is so constantly active that there is no time to sit and brood over her sorrow. She and the king are the most indefatigable workers, and no king and queen ever devoted themselves with greater singleness of purpose to doing all that they could to advance the welfare of their kingdom. King Charles has not been in very robust health of late, and it is feared that he will never be very vigorous again, although he is but sixty-seven years of age, while the queen is sixty-three years old. As the royal pair are childless the throne would descend to Prince Ferdinand, a grand-nephew of King Charles, who was created Prince of Roumania in 1889, his father having renounced his right to the crown in favor of his son. Queen Elizabeth has herself told the story of how she "fell in love" with the king.

"It was at Berlin," she says, "while on a visit to the Queen of Prussia, afterward Empress Augusta of Germany, I had just caught a glimpse of the Prince of Hohenzollern, who is now my husband. Then many years went by, finding me sad and despondent. My youth had been blighted by the presence of suffering and death, but my soul felt warm and rich with such impulses of self-devotion as would have made me an excellent nurse or an excellent mother. Many princes proposed to me

KING AND QUEEN OF ROUMANIA

at that time, but only one amongst all the potentates who sued for my hand tempted my fancy, though I had never seen him. He was a widower and the father of many children. Many children—I could immediately satisfy my heart's desire. But my mother was against the match, and the whole affair was dropped. One day at Cologne, where we had gone to spend a few hours and listen to a Beethoven Festival, we met, by mere accident, as I was hastily informed by my mother, the reigning Price of Roumania, Prince Charles of Hohenzollern-Sigmaringen. We were staying that afternoon at the Hotel du Nord, which can be seen as the train crosses the Cologne station. I was very glad to meet the Prince of Roumania again, as he had been much talked about in my presence of late, and I knew that he had won his way to the throne through political perils almost as great as the perils of war. He had crossed Austria in disguise because the Austrian Government had objected strongly to his election. In the small garden of the Hotel du Nord, where the beautiful towers of the cathedral threw their shadows upon us, I poured eager questions into his ears without even casting a glance at his refined and regular features, and he patiently answered every one of my questions. He spoke long and well, while I listened, wrapt in astonishment and delight.

The captivating young prince who had so charmed the young Princess of Wied proposed for her hand that very day and was at once accepted. Time has given proof of the fact that the choice of the king was a wise one, for from the moment of her arrival in Roumania her life has been a constant effort, a constant labor of love on behalf of the people. She has not escaped some of the jealousies and bickerings that crop out in every court circle, but her admirable tact and unfailing dignity have kept her from doing many things a person with less self-poise and kindliness of spirit would no doubt have done. She has proved her devotion to the people by innumerable acts of charity and service. Her devotion to the soldiers when they were brought home sick and wounded from a war in which Roumania was once engaged was so great that it won for her the title of the "little mother" from the soldiers. She went among them in the dress of a nurse performing the duties of a nurse to the best of her ability, and in every time of stress and strain that Roumania has known since she became queen of that country Queen Elizabeth has been as true and loyal as any born Roumanian could have been. She is a graceful writer of prose and verse, and in many respects is one of the remarkable women of Europe.

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For the third instalment of "The Strange Adventures of Helen Mortimer" turn to page 18.

From Stereograph, Copyright, by Underwood & Underwood, New York

J. PIERPONT MORGAN'S YACHT PASSING THROUGH THE CORINTHIAN CANAL, A REMARKABLE SEA LEVEL CANAL CONNECTING SARONIC GULF WITH THE GULF OF CORINTH, GREECE.

The Strange Adventures of Helen Mortimer

(CONTINUED FROM PAGE 19)

sent on from the Queen Anne street house. There was also a note, which I did not see at first. I was so anxious to read what Halifax had to say.

"It was a dear letter, so unaffected and kind, and in such good taste! No premature tenderness, but the letter of a good sincere friend, and I felt as if my heart would break when I thought what he would so soon hear concerning me. Under the circumstances I felt it would not be wise to even answer his letter.

"After I had spent an hour or so thinking over this, there came to me that philosophic numbness which, either as my blessing or curse, generally succeeds a period of futile worry and makes me recklessly indifferent as to what may follow. I put Halifax's letter away, and taking up the note I had overlooked, opened it to find another blow awaiting me. It was from the landlady asking me to vacate my room that day before six, and enclosing a bill for my board, and two pounds extra for damage done to the room!

"However, it was not the bill that worried me so much as the fact that I was obliged to find some place to move to at once, which in my ignorance of London threw me into a panic that made me act on the impulse and without common sense. My one object was to secure some retreat to fly to should I have serious words with Mrs. Pancoast, and for this reason did not go to the house she had directed me to in that telegram which I had found among Barrington's letters. The dread of finding myself at her mercy, with no place to spend the night, prevented my reasoning clearly, so I sent for a paper, and with the maid's help, copied out several boarding-house addresses which she told me were not very far away; but, as I have since learned, Londoners call a distance of two miles, 'five minutes drive.'

"It was such a dark foggy day, I was obliged to light the gas in order to dress, and when ready I packed everything so that I could return for them when I found a room, before going to meet the train. I then asked the maid if I could get a cab nearby.

"'Oh, yes, you can get a 'ansom I expect,' she returned, 'but you will find it difficult to get about to-day, miss. Looks as if this was goin' to settle down in a black fog, and if it does, it will go 'ard with you, for you will 'ave to stop off somewhere, and wait.'

"But as the idea of a fog then held no terrors for me, and it looked quite pale and innocent from the window, I said I was willing to risk it.

"'I shouldn't advise you to attempt it, Miss,' she replied shaking her head, 'but if you're set on it, I'll whistle for a 'ansom if you likes.' I said I did like, and followed her down to the door, where I waited while she blew a little whistle repeatedly.

"It was impossible to see anything distinctly more than a few feet away, the entire street was veiled in a yellowish gray vapor. Just beyond the steps a man was standing whom I could barely distinguish. He looked like an enormously tall phantom, for these fogs magnify whatever is discernible.

"'I'm afraid you'll have a time getting about to-day, miss,' said the maid as I passed her, 'you will have to go slowly, for it's getting darker every minute.'

"This was not calculated to improve my depressed spirits, but I accepted it as in keeping with all the rest, and went on to the ghostly looking hansom, called out the address I wanted and entered. We went down the street at a slow trot, and I noticed, as we turned from the curb, a four-wheeler that had been standing a little way beyond, turned also, ran for a little beside us, then alongside, and presently fell behind. I noticed it merely because it was there, not because there was anything particularly strange in its having started at the same time, but I remembered it later.

"The drive was much longer than I had expected, and on arriving at the address given, I found the fog had grown considerably denser. It was a very small house on a narrow street, two white steps in front and crimson window blinds. The landlady smelt strongly of gin and talked incessantly about the people who had patronized her house, explaining that it was the first time in years she had had any of her rooms vacant. Although I did not like her at all, I agreed to take a small top room at two pounds a week, and, being anxious to get back to Oakley Street to get my things moved out, and also to get Barrington's letters which, in my hurry, I had forgotten, I interrupted her long harangue and took my departure, saying I should return as quickly as possible with the things.

"The gas was lighted in the house, while outside the fog had become like impenetrable night, and although a street lamp a little way down was lighted, it only showed dimly through the gloom. I had to feel my way down the steps, for I had foolishly closed the outer door behind me, and the landlady had not had sense enough to open it again to give me a little light.

"Not being able to see the hansom, I called out when I reached the pavement, 'Where are you, coachman?' and a voice quite near me, returned:

"'Here Miss, give me your arm, I'll lead you.'

"Then I felt a hand on my arm, and dimly discerned the dark form of a man. He led me carefully forward, placed my foot on the cab step and helped me in, then called, 'Go ahead!' and before I fully realized I was in a four-wheeler and not a hansom, he was in beside me, the door closed, and we started!

[TO BE CONTINUED NEXT ISSUE]

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Patterns cut in one size only. Length of doll, twenty-two inches. Three fourths of a yard of thirty-six-inch material required for doll, five eighths of a yard of twenty-one-inch material required for shirt-waist, three eighths of a yard of thirty-six-inch material for skirt. 10 cents.

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This outfit consists of dress, petticoat, chemise and drawers. Patterns cut in one size only, for a doll twenty-two inches long. The waist of the dress is full and the neck cut low. A full gathered skirt is attached to the waist. Quantity of material required for dress, one and one fourth yards of twenty-seven-inch material. Quantity of material required for underwear, one and one fourth yards of thirty-six-inch material. 10 cents.

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Pattern cut in one size. Outfit consists of sailor suit and full white jumper and overalls. Quantity of material required for sailor suit, one half yard of material twenty-seven inches wide, with one fourth of a yard of contrasting material for collar and shield. Quantity of material required for jumper, one half yard of material twenty-seven inches wide; for overalls, one half yard of material twenty-seven inches wide. 10 cents.

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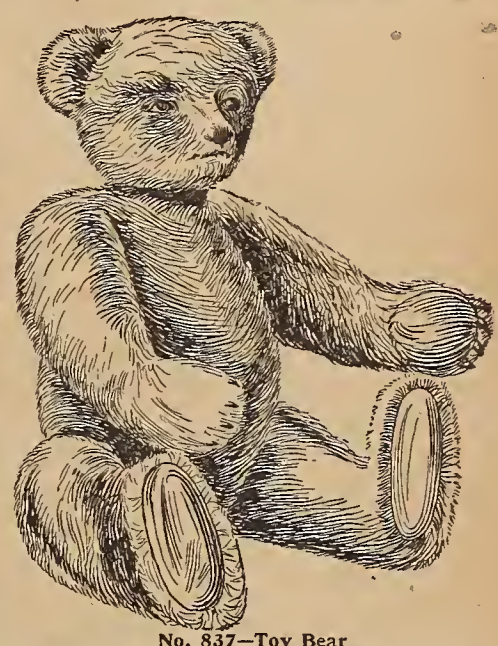
No. 841—Rag Doll and Dress
Pattern cut in one size, for doll 22 inches high. Pattern given for rag doll to be stuffed, for dress, and for sunbonnet to fit doll. Quantity of material for rag doll, three fourths of a yard of material thirty-six inches wide. Quantity of material for dress, one yard of material thirty-six inches wide, with one eighth of a yard of lace. Quantity of material for sunbonnet, one fourth of a yard of material thirty-six inches wide, with one yard of embroidery for frill. 10 cents.



No. 837—Toy Bear
Pattern cut in one size, bear 15 inches high. Quantity of material required, half a yard of thirty-six inch material, with a small piece of chamois or leather eight inches square for paws, and two buttons for eyes. 10 cents.

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No. 706—Corset-Cover, with or without Fitted Skirt Portion
Sizes 32, 34, 36, 38 and 40 inch bust measures. 10 cents.

No. 824—Girl's School Dress
Pattern cut for 6, 8, 10 and 12 year sizes. Quantity of material required for medium size, or 8 years, four yards of thirty-six-inch material, or three yards of forty-four-inch material, with one fourth of a yard of lace for yoke. 10 cents.

No. 850—Apron with Round Yoke
Sizes 2, 4, 6 and 8 years. 10 cents.

No. 646—Yoke Shirt-Waist
Sizes 34, 36, 38, 40 and 42 inches bust measure. 10 cents.

No. 667—Flannel Bunny
Cut for one size only. 10 cents.

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No. 705—Dressing Sacque with Fitted Back
Sizes 34, 36, 38 and 40 inch bust measures. 10 cents.

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For other new and up-to-date Designs see Page 26

Jottings from a Farm Log-Book

Early in the season we prophesied that our potato crop would be comparatively free from the gray grub, basing our opinion on the fact that the winter previous had been so mild, with little snow, so that the frost would be likely to go deep enough to destroy the larvæ from which the grubs hatch.

This prediction has been verified. Very little injury was done to the crop this season. The tubers were mostly smooth, and not disfigured by the worm. This will add considerably to the value of the crop. We all know how reluctant people are to buy potatoes that have been gnawed by grubs. And no wonder. It is a blemish, and unfortunately, one that never can be remedied.

But with many of our farmers there has been another year of loss by blight. Not many have as yet learned the value of spraying to prevent this disease. Many fields were stricken in this way long before the tubers reached full size. Here is a serious loss. We must get ready to meet this enemy of the potato, as we have the Colorado beetle. Now we expect to fight the bug; we do it; we win out. This is what we must do with the blight. It is really just as easy to contend with that as it is to keep off the beetle. All that is lacking is the will.

We have had some trouble this year with club root in our cabbage. A strange disease in which a fungous growth comes on the root of the plant, preventing it from forming heads. The cause of this disease does not seem to be well understood, and we have not yet learned how to contend with it. For a while after the plants were set out they seemed to do well. Then all at once they began to look sickly and wilt. In the night-time the plants revived a little, but as the sun came up higher they drooped and withered.

We tried salt around the roots, but that did not seem to do much good. Spraying is not the thing either. About as good a thing as we know of is to put a good dose of air-slaked lime on the land. On half an acre we would need to use thirty or forty bushels. One other thing is sure. The disease is more apt to come on land that has been planted to cabbage for a number of years. By changing the location of the field we may often ward off the disease. All the plants that are affected ought to be pulled up at once and burned or otherwise destroyed.

Another enemy we have had to contend with is the cabbage fly. These come early in the season and lay their eggs along the lower part of the stalk, and even on the roots of the plant. The eggs soon hatch into a maggot which burrows in the root and eats the very life out of the plant. Most folks can do nothing about this enemy. That was the way with us. We did use salt on some plants, digging the earth away and applying the salt as well as we could to the seat of trouble. But this is pretty expensive business and cannot be done on a large scale. If we had been in the business as extensively as some are we would have tried some of the seventy or more preparations that are in the market for insect poisoning. Rotation of crops is also a valuable preventive.

Edgar L. Vincent.

Agricultural News Notes

Shipments of American-grown wheat to Europe are smallest in July, August, December and January.

The amount of cheese held in cold storage September 30, 1906 was over twenty-two million pounds.

The September prices, this year, for clover seed, in the Toledo, Ohio, market were about one dollar higher than last year.

Our exports of bacon and canned pork, up to October 1st of this year, were more than one third greater than last year.

The increasing cost and scarcity of farm labor is causing farmers to grow those grains and grass crops which require the least amount of manual labor.

The average consumption of rice per capita in this country in 1900 was about four and one fourth pounds. In 1905 it reached about five and one half pounds.

The banana industry has increased so rapidly that it is now one of the principal sources of wealth in the various countries of Central America.

Dan Patch 1:55, The Pacing King, Cresceus 2:02¼, The Trotting King,

THIS BEAUTIFUL PICTURE IN 6 BRILLIANT COLORS MAILED TO YOU FREE.

We have just published a large, colored lithograph of the above Photo-Engraving, which shows our World Famous Stallions, Dan Patch 1:55 and Cresceus 2:02¼ in an Exciting Contest and at Extreme Speed. The picture is 16 by 21 inches and shows both horses in their natural colors and as life-like as if you saw them racing on the track. It is a picture that would sell for $2.00 if gotten out in a small edition. You can have one of these Large and Beautiful Colored Pictures of the Two Most Valuable Harness Horse Stallions and Champions of the World, Absolutely Free and we will prepay the postage. This picture was made from life and every lover of a great horse should have one.

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Second Start, Dubuque, 1:58. Fourth Start, Minnesota State Fair, 1:55.

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M. W. SAVAGE, Prop. of International Stock Food Co.
International Stock Food Farm.

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That's why we have gone on making improvement after improvement in

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making it and keeping it "Standard of the World."

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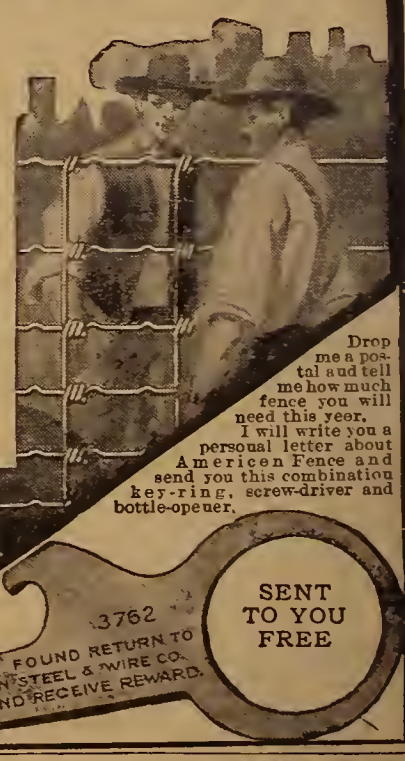

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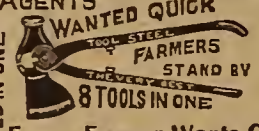

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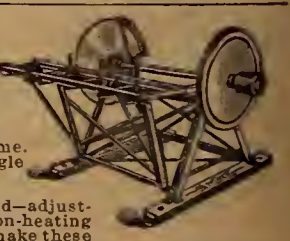

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